

# Application: 0000001432

Dinah Hamilton - dinah.hamilton@enmu.edu  
NM General Education Curriculum

## Summary

**ID:** 0000001432

**Status:** Under Review

**Last submitted:** Mar 17 2021 11:27 AM (MDT)

## Application Form

**Completed** - Mar 17 2021

## Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

### Contact Information

Name	Dinah Hamilton
Title	Department Chair
Phone	575-315-1160
Email	<a href="mailto:Dinah.Hamilton@enmu.edu">Dinah.Hamilton@enmu.edu</a>

### Submitting Institution

Name of HEI	ENMU-Ruidoso
Submitting Department	History, Humanities and Social Sciences

### Chief Academic Officer

Name	Coda Omness
Email	<a href="mailto:Coda.Omness@enmu.edu">Coda.Omness@enmu.edu</a>



## Registrar

Name	Amy Means
Email	<a href="mailto:Amy.Means@enmu.edu">Amy.Means@enmu.edu</a>

### Is this application for your entire system (ENMU, NMSU, & UNM)?

No

## Institutional Course Information

Prefix	CJUS
Number	1110
Title	Introduction to Criminal Justice
Number of credits	3

### Was this course previously part of the New Mexico General Education curriculum?

No

## Co-requisite Course

Prefix	N/A
Number	(No response)
Title (if applicable)	(No response)

## New Mexico Common Course Information

Prefix	CJUS
Number	1110
Name	Introduction to Criminal Justice

### A. Content Area and Essential Skills

#### To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Social & Behavioral Sciences - Communication, Critical Thinking, Personal & Social Responsibility

### B. Learning Outcomes

#### List all common course student learning outcomes for the course.

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

1. Describe the history, structure and function of the criminal justice system in the United States.
2. Discuss the role of law enforcement, court systems, corrections, and security in maintaining social order.
3. Identify and describe crime causation theories, various measures of crime and their reliability and victimization theories.
4. Relate fundamental principles, concepts and terminology used in criminal justice to current events
5. Apply basic analytical and critical thinking skills in evaluating criminal justice issues, policies, trends and disparities.

## Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

N/A

---

### C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

**Communication. Genre and Medium Awareness, Application and Versatility; Strategies for Understanding and Evaluating Messages; and Evaluation and Production of Arguments.**

*In this box, provide a narrative that explains how the proposed course addresses **all** of the components of communication.*

Students are prepared to become versatile communicators who can respond to a diverse range of situations with appropriate written, oral, visual, or digital texts and performances. This is accomplished by the students completing: A major paper, unit written assignments and unit discussion postings. All papers are required to be submitted in APA format.

Students learn how to evaluate court decisions and current laws and present their own arguments regarding these topics. Weekly classroom discussions are also assigned in which students post their opinion on controversial laws or court judgements and respond to other student's discussion postings.

***Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.***

*In this box, provide a narrative that explains how the proposed course addresses all of the components of critical thinking.*

Students utilize critical skills by analyzing the causes of crime, evaluating problems and solutions in modern policing and effective punishment for crimes.

Students engage in problem setting with attention to types of crime, sentencing and the correctional system. Students discuss court cases as it relates to evidence collection and prosecution. Attention is given to each distinctive area of the corrections system including the prison system, probation and parole and community corrections. Disparities in the criminal justice system are discussed as it relates to socioeconomic status and race. The course utilizes power points, subject related websites and interviews with current corrections system employees.

Evidence acquisition is obtained in a final research paper which asks students to provide evidence collected or factual materials on the court case they selected. Students utilize their textbook and website readings to form an argument. Then students must provide an argument as to whether evidence collection and trial procedures were fair and just. Students must provide details about the case by discussing events of the case, the prosecution of the case and sentencing. They must provide explicit details of the case and their assessment of the criminal justice process. The final paper is required is graded with written feedback on the overall contents of the paper.

The five-page written paper must provide logical reasoning and arrive at a conclusion. The student must provide a thesis, summary of the criminal case, argumentation and supporting evidence.

Students are also asked to evaluate evidence on several current criminal justice hot topics in weekly discussion postings. Students are asked to respond to the original instructor posting and respond to at least one other student's post.

**Personal & Social Responsibility. Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global**

*In this box, provide a narrative that explains how the proposed course addresses 2 of the components of personal & social responsibility.*

This course seeks to introduce students to the criminal justice system. Causes of crime, victim advocacy, law enforcement, the court system and correctional system are discussed. Likewise, racial, socioeconomical and ethical considerations are discussed as they pertain to the types of crimes committed and how they relate to punishment and sentencing. Race is also discussed in the prison setting and how race influences the membership in prison gangs for protection. Students learn punishment for crimes committed and discuss whether or not they believe the punishment meets the crime. Probation and community corrections are also examined. Students discuss the success rate of these programs and if they believe that the cost to cities, states, and the federal government assist in reducing crime and keeping offenders out of the criminal justice system.

Civic discourse, civic knowledge and engagement occurs locally and globally. Students participate in weekly discussions in which they form opinions on topics such as the death penalty, knock and talks, and personal information vs. national security. The students must respond to other students posts in relation to the topic. In recent times, national security provides an opportunity to discuss personal and social responsibility for past events like 9/11.

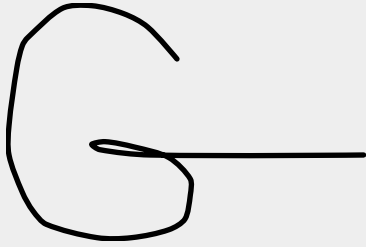
---

#### **D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

The assessment plan is currently under construction and will be available on the college website.

This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).



**Date**

Mar 17 2021

## Upload Assessment

**Completed** - Mar 17 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

### [CJUS 1110 Assignment and Rubric](#)

**Filename:** CJUS\_1110\_Assignment\_and\_Rubric.pdf **Size:** 237.5 kB

## Upload Rubric

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

# Application: 0000001505

Robert Moore - Robert.Moore@rm01.enmuros.cc.nm.us  
NM General Education Curriculum

### Summary

**ID:** 0000001505

**Status:** Under Review

**Last submitted:** Mar 29 2021 09:26 AM (MDT)

## Application Form

# Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.

- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

### Contact Information

Name	Robert Moore
Title	Assistant VP
Phone	5756247001
Email	<a href="mailto:robert.moore@roswell.enmu.edu">robert.moore@roswell.enmu.edu</a>

### Submitting Institution

Name of HEI	ENMU-Roswell
Submitting Department	Science

### Chief Academic Officer

Name	Annemarie Oldfield
Email	<a href="mailto:annemarie.oldfield@roswell.enmu.edu">annemarie.oldfield@roswell.enmu.edu</a>

### Registrar

Name	Linda Neel
Email	<a href="mailto:linda.neel@roswell.enmu.edu">linda.neel@roswell.enmu.edu</a>

### Is this application for your entire system (ENMU, NMSU, & UNM)?

No



## Institutional Course Information

Prefix	GEOL
Number	1120
Title	Environmental Geology
Number of credits	3

## Was this course previously part of the New Mexico General Education curriculum?

Yes

## Co-requisite Course

Prefix	GEOL
Number	1120L
Title (if applicable)	Environmental Geology Lab

## New Mexico Common Course Information

Prefix	GEOL
Number	1120
Name	Environmental Geology Lecture + Lab

## A. Content Area and Essential Skills

**To which area should this course be added?**

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Science - Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning

---

**B. Learning Outcomes**

---

## List all common course student learning outcomes for the course.

Common Course Student Learning Outcomes (find Common Course SLOs at:

<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

### Lecture

1. Apply the scientific method to the field of environmental geology and differentiate between facts and opinions.
2. Recognize or describe natural cycles, for example the rock cycle, hydrologic cycle, and carbon cycle.
3. Discuss and explain the role humans play in environmental problems and in solutions to those problems;  
relate environmental geology to your life and its portrayal in the media.
4. Recognize, discuss or explain geologic hazards and their impact on humans and how these impacts can be minimized.
5. Recognize or explain a holistic approach to sustainability (mineral, energy, water and soil resources) on local to global scales while minimizing negative impacts on the environment.
6. Recognize, discuss or explain global environmental issues, including climate change, and the varied responses to these issues.

### Lab

1. Apply the scientific method to the field of environmental geology.
2. Identify or describe stream processes and features as part of the hydrologic cycle.
3. Describe, classify, or identify minerals.
4. Describe, classify, or identify igneous, sedimentary, and metamorphic rocks.
5. Identify and discuss the importance of Earth resources.
6. Obtain measurements and make calculations that lead to the graphical display and interpretation of data.
7. Communicate (written and/or oral) interpretations of quantitative and graphical data to evaluate environmental problems.
8. Interpret features on topographic maps.

## Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

NA

### C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

#### **Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of critical thinking.*

Critical thinking is developed throughout the semester at ENMUR as the students complete each chapter of instruction and the associated laboratory exercises. The first lab exercise, Earth Systems and Sustainability, challenges the student to apply the scientific method to a structured exercise in the use of the Earth's limited resources and calculate their own ecological footprint. Graphs and tables are populated with data that the students calculate for an organism's utilization of natural resources in an abundant and limited scenario. A post evaluation of that organism's utilization of resources challenges the student to interpret and understand the impact that reproduction and available resources has upon the organism's success and that organism's impact upon the environment.

**Quantitative Reasoning. *Communication/Representation of Quantitative Information; Analysis of Quantitative Arguments; and Application of Quantitative Models***

*In this box, provide a narrative that explains how the proposed course addresses all of the components of quantitative reasoning.*

Students in Environmental Geology apply Quantitative Reasoning principles throughout the class, both in the lecture and laboratory settings. Students analyze graphs and apply their knowledge to answer quiz, exam, and laboratory questions (for example in the laboratory over topographic maps, students must measure elevation and contour interval lines on a topographic map to answer questions over water drainage and surface water pollution). Students also perform calculations in the conversion of units of measurement such as miles to meters and feet to meters. A lab assignment such as this is ideal to introduce the student to three component skills of Quantitative Reasoning. Students can translate written language into a mathematical problem (communication of quantitative information), analyze a quantitative argument by developing their own conclusions based on evidence provided, and apply quantitative models to real world problems as they generate their answers as to whether an environmental impact, surface water contamination, may be plausible based upon their calculations.

**Personal & Social Responsibility. *Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global***

*In this box, provide a narrative that explains how the proposed course addresses **2** of the components of personal & social responsibility.*

Environmental Geology is an ideal course to teach Personal and Social Responsibility to students. Students take part in discussions with their classmates throughout the semester. In one such discussion the student is challenged in presenting their ideas that could be applied to conservation and management of potable water resources. In describing how they would individually utilize water in their homes more effectively to ensure that their fellow citizens would in turn have water available for use. As a result of their ethical reasoning and personal choice to conserve a resource, the students can better understand that their value systems do indeed have an impact upon conservation and management of natural resources. Through the discussion of using fresh water for oil exploration and agriculture, while attempting to conserve water for human consumption, the students are exposed to the difficulties involved with the local and global communities in navigating the economic and environmental impacts of water conservation and management.

---

**D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

[https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan\\_ENMURoswell.pdf](https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan_ENMURoswell.pdf)

This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).



**Date**

Mar 29 2021

## Upload Assessment

**Completed** - Mar 29 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

### [GEOL 1120 Assignment](#)

**Filename:** GEOL\_1120\_Assignment.pdf **Size:** 672.1 kB

## Upload Rubric

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

# Application: 0000001494

James Scott - james.scott@nmt.edu  
NM General Education Curriculum

### Summary

**ID:** 0000001494

**Status:** Under Review

**Last submitted:** Mar 29 2021 05:22 PM (MDT)

## Application Form

# Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.



- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

### Contact Information

Name	Christopher ChoGlueck
Title	Assistant Professor of Ethics
Phone	575 - 835 - 5401
Email	<a href="mailto:christopher.choglueck@nmt.edu">christopher.choglueck@nmt.edu</a>

### Submitting Institution

Name of HEI	New Mexico Institute of Mining and Technology
Submitting Department	Department of Communication, Liberal Arts and Social Sciences

### Chief Academic Officer

Name	Dr. Steve Simpson
Email	<a href="mailto:steve.simpson@nmt.edu">steve.simpson@nmt.edu</a>

### Registrar

Name	James Scott
Email	<a href="mailto:james.scott@nmt.edu">james.scott@nmt.edu</a>

### Is this application for your entire system (ENMU, NMSU, & UNM)?

(No response)

## Institutional Course Information

Prefix	PHIL
Number	382
Title	Ethics of Computing and Information Technologies
Number of credits	3

## Was this course previously part of the New Mexico General Education curriculum?

No

## Co-requisite Course

Prefix	ENGL
Number	112
Title (if applicable)	College Writing

## New Mexico Common Course Information

Prefix	(No response)
Number	(No response)
Name	(No response)

## A. Content Area and Essential Skills

## To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Humanities - Information & Digital Literacy, Critical Thinking, Personal & Social Responsibility

## B. Learning Outcomes

### List all common course student learning outcomes for the course.

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

None

### Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

1. Construct and clearly communicate arguments about the moral responsibilities of coders, companies, and governments and the rights and virtues of professionals and users, and defend arguments with charity and without logical fallacies;
2. Write and research analytic essays about contemporary ethical problems with proper structure that contribute to popular and scholarly conversations;
3. Recognize how human cultures and value judgments shape the process of programming, development, and implementation of computer software and other digital technologies, including algorithmic bias, internet access, and digital usability;
4. Evaluate different conceptions of freedom, justice, democracy, and equality in terms of different ethical frameworks and apply them to real-world problems with technology and policy.

## C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

***Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.***

*In this box, provide a narrative that explains how the proposed course addresses all of the components of critical thinking.*

As a course in practical philosophy, students will develop their ability to reason critically about ethics in real-world cases related to big data, computer code, digital networks, and robotics. This course is suited both for students training in profession careers in computer science and IT as well as for those more generally interested in ethical issues involving programming, web development, artificial intelligence, machine learning, and other related technologies. Critical reasoning skills are taught through skills workshops. In a skills workshop in the beginning of the semester, students are learned about how to form arguments, particularly how to use evidence to support judgments about ethical claims. I introduce them to logical criteria for evaluating the validity and probable truth of arguments as well as logical fallacies commonly committed. Throughout the semester, we have fallacies of the day that arise in our class readings or discussions, which cover a variety of contemporary topics, including algorithm bias, criminal justice software, digital intellectual property, censorship & regulation, hacking, digital activism, Big Tech, artificial intelligence, and robots for war.

To enable evidence evaluation and reasoning, students are introduced to different ethical frameworks, including liberalism, egalitarianism, utilitarianism, and virtue ethics. Students practice applying these by responding to 2 case studies, where a prompt is given a week in advance. They must (1) take a stance on the ethics of the situation, including permissibility and proposed actions; (2) provide grounds for that position, with special attention to ethical frameworks and issues in class; and (3) discuss any strengths and weaknesses of their position. Students must delineate what any specific ethical problems as well as why they are problems, such as accountability of software companies for violations of the End User License Agreement (EULA). Furthermore, the case studies prompt students to think about how to improve the situation, requiring them to evaluate the evidence of different options for amelioration and to defend any that are consistent with their moral assessment.

---

***Personal & Social Responsibility. Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global***

*In this box, provide a narrative that explains how the proposed course addresses 2 of the components of personal & social responsibility.*

The course directly aims to improve students' ethical reasoning by enabling them to reflect critically on current ethical issues related to digital technologies, the responsibilities of information technology professionals, and social justice. They study topics such as social media, military applications of digital media, gendered technologies, and access to information technologies. In addition to learning the basics of research ethics and social responsibility, students will examine real-world debates regarding subjects like big data, computer code, and digital networks, and they will analyze the legal, political, and social stakes of information technologies.

The class exposes students to a wide diversity of authors and a variety of ethical issues to facilitate their intercultural reasoning. Students begin with professional ethics in computing and programming, starting with the most personal level of ethics: integrity and accountability. They are introduced to the major ethical frameworks of deontology, consequentialism, and then virtue ethics, all using current issue in the tech industry. For instance, to introduce the students to different ideas of equality, we discuss workplace discrimination in the tech industry and different solutions, particularly those aimed at reducing prejudice against women and other marginalized groups and those aimed at creating more inclusive work culture. As we move through different weeks on freedom, censorship, and surveillance, students learn more about the ethical underpinnings of liberal conceptions of rights as well as alternative ideas for non-Western cultures. For instance, we discuss Confucianism in several classes and apply it to more authoritative cases of IT such as "the Great Firewall of China," showing students how it is important to understand different cultures' approaches to ethics in order to design morally appropriate social networking services.

Special emphasis is placed on intellectual humility, open-minded engagement, charitable reading, and respectful dialogue. Students spend several weeks on issues related to cross-identity understanding and trust building. For instance, during our week on Identity on the Internet, we talk about the costs and benefits of "real name" policies online in contrast with more anonymous discourse online, which often lacks accountability and respect. The following week, we discuss how to challenge ignorance and prejudice online, particularly looking at the idea of "hopeful trust" as a means of recognizing where someone with less cultural competency is coming from and how certain forms of engagement might better help them reduce their ignorance.

**Information & Digital Literacy. Authority and Value of Information; Digital Literacy; Information Structure; and Research as Inquiry**

*In this box, provide a narrative that explains how the proposed course addresses **3** of the components of digital literacy.*

To facilitate students' informational and digital literacy, this course culminates in a research project that involves both in-depth scholarly research as well as a multimedia presentation. Each student researches and presents a thorough case study of a contemporary ethical issue of their choosing, related to course themes. Their analyses must include the following elements: (1) clarify a pressing contemporary ethical issue related to big data, algorithms, internet, cybersecurity, etc.; (2) present a proposal for resolving the ethical issue or take a critical stance toward the issue/policy/technology; (3) defend the proposal or stance, using ethical justifications and scientific literature; and (4) present at least 2 strong objections with a response to each.

Students must engage in an iterative research process that also recognizes the value of information as distinction for its authoritativeness. Students typically engage with both philosophical and scientific sources, including at least 4 peer-reviewed articles or books. They first submit a 1-page proposal describing the case study, the ethical issue(s) at hand, and their preliminary plans for research and (virtual) presentation. After conducting that research, students prepare and make a virtual presentation of their case study involving multimedia (such as a screencast of slides, a podcast, an explainer video, an infographic, etc.). Presentations will occur virtually during the last week of classes, with a Q/A. Students then write a final report, including (1) a summary of their presentation, and (2) an annotated bibliography of their scholarly sources (2-3 additional pages), due finals week.

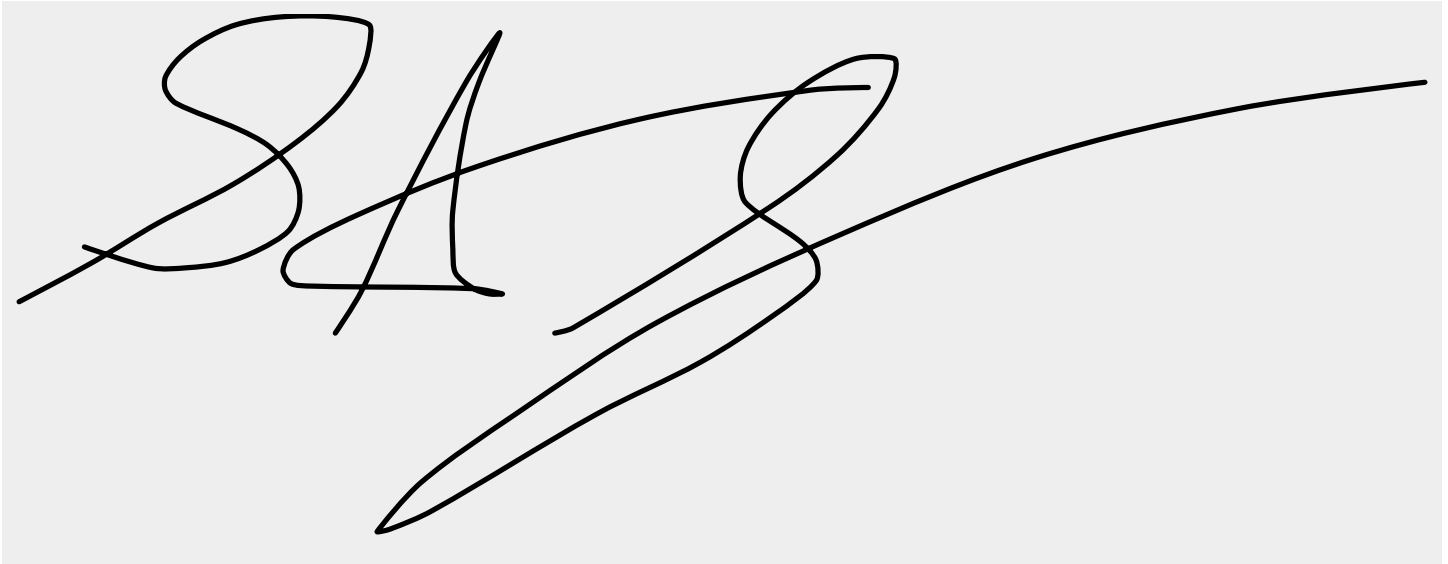
Special emphasis is placed on students' abilities to utilize information structures. This exercise facilitates students' abilities to conduct independent research on an issue of personal interest, to think about how ethical issues relate to concrete cases, and to work toward contributing to scholarly conversations. The professor grade presentations in terms of clarity of argument and presentation quality (including creativity, design, and engagement). The summary and bibliography are graded for clarity and completeness (including the 4 elements above).

#### D. Assessment Plan (Must be on file with HED by August 1, 2019)

Link to Institution's General Education Assessment Plan

<https://www.nmt.edu/academicaffairs/assessment/gened.php>

This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).



Date

Mar 26 2021

## Upload Assessment

Completed - Mar 26 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

### CSE 382 assessment CS

Filename: CSE\_382\_assessment\_CS.pdf Size: 163.3 kB

## Upload Rubric

Completed - Mar 26 2021



The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

## [CSE 382 grading rubric CS](#)

**Filename:** CSE\_382\_\_grading\_rubric\_CS.pdf **Size:** 245.1 kB

# Application: 0000001424

Robert Moore - Robert.Moore@rm01.enmuros.cc.nm.us  
NM General Education Curriculum

## Summary

**ID:** 0000001424

**Status:** Under Review

**Last submitted:** Mar 25 2021 11:01 AM (MDT)

## Application Form

**Completed** - Mar 25 2021

## Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills

throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

### Contact Information

Name	Robert Moore
Title	Assistant VP
Phone	5756247001
Email	<a href="mailto:robert.moore@roswell.enmu.edu">robert.moore@roswell.enmu.edu</a>

### Submitting Institution

Name of HEI	ENMU-Roswell
Submitting Department	Science

### Chief Academic Officer

Name	Annemarie Oldfield
Email	<a href="mailto:annemarie.oldfield@roswell.enmu.edu">annemarie.oldfield@roswell.enmu.edu</a>

### Registrar

Name	Linda Neel
Email	<a href="mailto:linda.neel@roswell.enmu.edu">linda.neel@roswell.enmu.edu</a>

### Is this application for your entire system (ENMU, NMSU, & UNM)?

No

### Institutional Course Information

Prefix	PHYS
Number	1240
Title	Algebra-based Physics II
Number of credits	3

### Was this course previously part of the New Mexico General Education curriculum?

Yes

### Co-requisite Course

Prefix	PHYS
Number	1240L
Title (if applicable)	Algebra-based Physics II Lab

### New Mexico Common Course Information

Prefix	PHYS
Number	1240
Name	Algebra-based Physics II Lecture + Lab

### A. Content Area and Essential Skills

#### To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Science - Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning

### B. Learning Outcomes

## List all common course student learning outcomes for the course.

Common Course Student Learning Outcomes (find Common Course SLOs at:

<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

Upon completion of this course, the student will be able to: 1. Be able to state Coulomb's Law and Gauss's laws and apply them. 2. Apply the concepts of electric charge, electric field and electric potential to solve problems. 3. Analyze simple DC and AC circuits. 4. Apply the Lorentz force to solve problems. 5. Apply Faraday's law of induction (and Lenz's law) to solve problems. 6. Apply ray optics to practical lens systems such as microscopes and corrective lenses. 7. Apply the wave nature of light to the phenomena of reflection, refraction, and diffraction. Optional Topics (some schools include these in Physics I, others in Physics II): 1. sound 2. waves 3. heat 4. thermodynamics 5. oscillatory motion 6. modern physics

---

## Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

Optional Student Learning Outcomes 1. Describe the fundamental properties of periodic motion. 2. Explain and apply the basic concepts of sound and wave motion. 3. Explain the basic concepts of heat and thermodynamics. 4. Explain the basic concepts of quantum theory and special relativity.

---

## C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

***Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.***

*In this box, provide a narrative that explains how the proposed course addresses all of the components of critical thinking.*

By the end of this course students will be required to exercise a high level of critical thinking skills in solving application problems dealing with electricity, magnetism, sound and light waves, and optics. Students will have laboratory experiments that require a high degree of problem solving and critical thinking when working with electrical circuits, light and sound experiments. As is typical in most college level physics lab courses, the students will need to make choices that will affect the results of their experiment. Often times, the results differ from one group to another depending on approach. Physics problems can vary in difficulty, but generally require a high level of inductive and deductive reasoning and critical thinking. Because the variety of problems are vast, it is especially important to understand and apply the correct formula to the physical situation being described. Each week students will have homework that relates to the lecture and these assignments require critical thinking skills. Finally, students will be assessed for critical thinking at the end of the course by means of a final exam that covers content and the skills developed throughout the semester. The learning outcomes vary from chapter to chapter, but critical thinking is the basis for physics.

**Quantitative Reasoning. Communication/Representation of Quantitative Information; Analysis of Quantitative Arguments; and Application of Quantitative Models**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of quantitative reasoning.*

By the end of this course students will have to demonstrate a mastery of a variety of quantitative skills related to physics. Physics is probably the scientific field most dependent on mathematics and quantitative literacy. Students will be working a multitude of problems involving detailed calculations that require basic math skills to complex problem solving. For example, students are asked to find the speed of sound waves in different mediums and different temperatures. These computations are essential in solving all kinds of physics problems from electricity and magnetism to sound and light propagation, to thermodynamics and fluid mechanics. Students will work in groups to answer complex questions involving a physical phenomenon or law. Students will often discuss solutions and the steps to solution for difficult problems as they use spreadsheets to calculate mean, standard deviation, and correlation when required to do so for percent error calculation. In addition, an awareness of the units and their meanings is important in communicating the solution. The manner in which these skills are assessed are primarily through homework, formal summative assessments at the end of each chapter/module. In addition to homework and chapter tests, learning is assessed through a comprehensive final exam at the end of the semester.

**Personal & Social Responsibility. *Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global***

*In this box, provide a narrative that explains how the proposed course addresses 2 of the components of personal & social responsibility.*

In keeping with the advice of the Association of American Colleges and Universities (AAC&U); ENMUR science courses aspire to foster and form in our students: (1) a striving for excellence, by developing a strong work ethic, (2) acting on a sense of personal and academic integrity, ranging from honesty to moral principles of ethics and character development, (3) contribution to a larger community, now and in the future, (4) taking serious the perspective of others (5) ethical and moral reasoning. The key to this part of education is the fact that our Physics courses integrate these outcomes into our classroom discussions and laboratory experiments. Having clear deadlines and classroom expectations inherently develops a strong work ethic and time management skills needed for life and employment. Our expectation to complete one's own homework and tests is explicitly stated in our Student Handbook and syllabus, while making room for collaboration. This collaboration is most clearly seen during physics lab time, when students engage in conversation, share ideas, challenge assumptions, problem solve by listening to other's opinions, and coming to a solution that works for all. Lastly, while classroom lectures and conversations tend to be centered around content of the physical world, the motion of bodies, and the forces at work in our Universe, we do allow time for thought about how this all contributes to the greater human experience of exploration of the unknown, development of technologies that bring advancement to our society, and a general sense of one's own responsibility to the planet, the plant and animal kingdom, and humanity itself. These skills are developed through reflective articles like the one cited below. These papers are collected and time for discussion is allowed during class, at least once a semester.

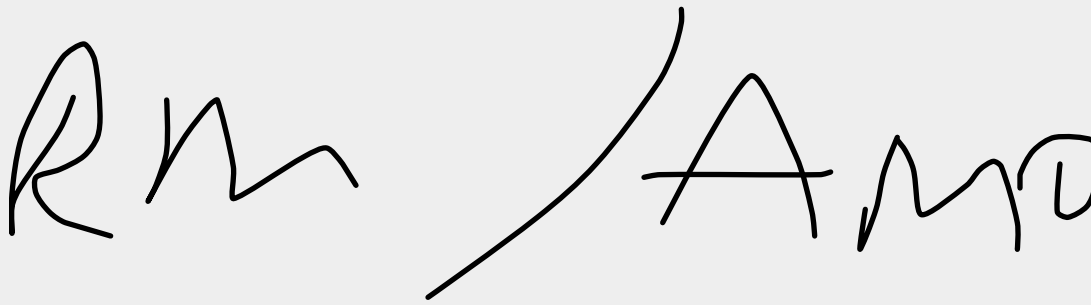


#### D. Assessment Plan (Must be on file with HED by August 1, 2019)

Link to Institution's General Education Assessment Plan

[https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan\\_ENMURoswell.pdf](https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan_ENMURoswell.pdf)

This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).

A handwritten signature in black ink, appearing to read "Rn / Amd", is displayed on a light gray background.

Date

Mar 11 2021

## Upload Assessment

Completed - Mar 11 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

### Final Exam Physics 1240

Filename: Final\_Exam\_Physics\_1240.pdf Size: 978.1 kB

## Upload Rubric

Incomplete

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

**Application: 0000001515**

## Summary

**ID:** 0000001515

**Status:** Under Review

**Last submitted:** Mar 29 2021 09:42 PM (MDT)

## Application Form

**Completed** - Mar 29 2021

## Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

### Contact Information

Name	Julia Deisler
Title	Dean
Phone	505-428-1817
Email	<a href="mailto:julia.deisler@sfcc.edu">julia.deisler@sfcc.edu</a>

### Submitting Institution

Name of HEI	Santa Fe Community Colleg
Submitting Department	Humanities and Social Sciences

### Chief Academic Officer

Name	Margaret Peters
Email	<a href="mailto:margaret.peters@sfcc.edu">margaret.peters@sfcc.edu</a>

## Registrar

Name	Kathleen Sena
Email	<a href="mailto:kathleen.sena@sfcc.edu">kathleen.sena@sfcc.edu</a>

### Is this application for your entire system (ENMU, NMSU, & UNM)?

No

## Institutional Course Information

Prefix	POLS
Number	2210
Title	New Mexico Government
Number of credits	3

### Was this course previously part of the New Mexico General Education curriculum?

Yes

## Co-requisite Course

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)

## New Mexico Common Course Information

Prefix	POLS
Number	2210
Name	New Mexico Government

### A. Content Area and Essential Skills

#### To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Social & Behavioral Sciences - Communication, Critical Thinking, Personal & Social Responsibility

### B. Learning Outcomes

#### List all common course student learning outcomes for the course.

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

At the conclusion of this course, the student should be able to: 1. Describe, in writing, the multidimensional nature of New Mexico government 2. Discuss critically, orally and in writing, the political behavior of New Mexico's political leaders 3. Describe the historical development of New Mexico government 4. Identify local institutions and the processes which guide the interactions of institutions 5. Explore the historical development of New Mexico government and its guiding concepts

## Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

NA

---

### C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

**Communication. Genre and Medium Awareness, Application and Versatility; Strategies for Understanding and Evaluating Messages; and Evaluation and Production of Arguments.**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of communication.*

Genre and Medium Awareness, Application and Versatility

These essential skills will be assessed through the medium of public speaking.

Students make an oral presentation in conjunction with a 'PowerPoint' - through the structure of a dyad - on historical and contemporary topics/issues of political importance through a list provided by the instructor (please see the "position presentation" attached). The presentation requires each student (within the dyad) to become aware of the genre and medium of political arguments.

Understanding and Evaluating Messages

After each dyad presentation each student (within the dyad) is required to answer any questions and/or critiques raised by her/his peers as well as the instructor at the end of the presentation. By answering these critiques and/or questions, students will display their understanding and evaluation of messages.

Evaluation and Production of Arguments.

By choosing a side, students will be assessed on the application and versatility of the arguments they present because they are required to elaborate on a minimum of three 'sub-issues' within the chosen topic/issue. By answering these critiques and/or questions, students will not only display their understanding but also their ability to evaluate and produce an argument as they make claims and counter-claims in their responses to their classmates.

**Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of critical thinking.*

It is imperative for an instructor to incorporate a methodology that assists students in connecting-the-dots and voiding-the-vacuum. How does an instructor achieve this? To create such a linkage effect between theory and the real world and apply the knowledge learned across the semester in a pragmatic fashion, students are required to submit a total of three short writing assignments, the structure of which is provided by the instructor through a format that not only lists a set of questions that need to be answered but adjoins each assignment. Such assignments give students a great deal of freedom in developing their creative and cognitive academic skills on historical and contemporary themes and concepts alike.

**Problem Setting**

In each of the three short writing assignments students need to address the set of questions related to their topic. Students will set the problem for each writing assignment.

**Evidence Acquisition:** Students must research their topic and find real-world examples that illustrate and support the problem they have formulated. These real-world examples will illustrate at least one political theory from the course.

**Evidence Evaluation**

Students are asked

- 1) How does your evidence support or substantiate your political theory?
- 2) Is the evidence relevant, valid, biased/unbiased?
- 2) Are there other theories that are related to the problem you set?

**Reasoning/Conclusion:**

Students are asked, Using the problem you set, how has your evidence supported your political theory? Make your conclusion arguments and support them with strong evidence.



**Personal & Social Responsibility. *Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global***

*In this box, provide a narrative that explains how the proposed course addresses **2** of the components of personal & social responsibility.*

Civic discourse, civic knowledge and engagement – local and global

Within a controlled environment but with utmost academic freedom, in-class debates and discussions on articles pre-chosen by the instructor from renowned and respected supplementary sources, such as ‘The NM Political Report’, ‘New Mexico In Depth’, etc., underscore the importance of not only being up-to-date on current issues but further the definition of what it means to uphold basic civic responsibility and to be a ‘Model Citizen’.

Through readings and discussions students are further encouraged to contemplate the positive and negative impacts of globalization within their respective community and state as well as on populations in different parts of the country and the world

Intercultural reasoning and intercultural competence:

Furthermore, a constant recurring theme is analyzing how social media (person-to-person contact; for e.g. Facebook, playing multi-player video games, etc.) is reshaping the socio-economic and cultural landscape of the 21st century and truly leading to the creation of a multi-cultural environment and how such a movement is resulting in the creation of both opportunities and difficulties within the State of New Mexico, the U.S., and abroad.

---

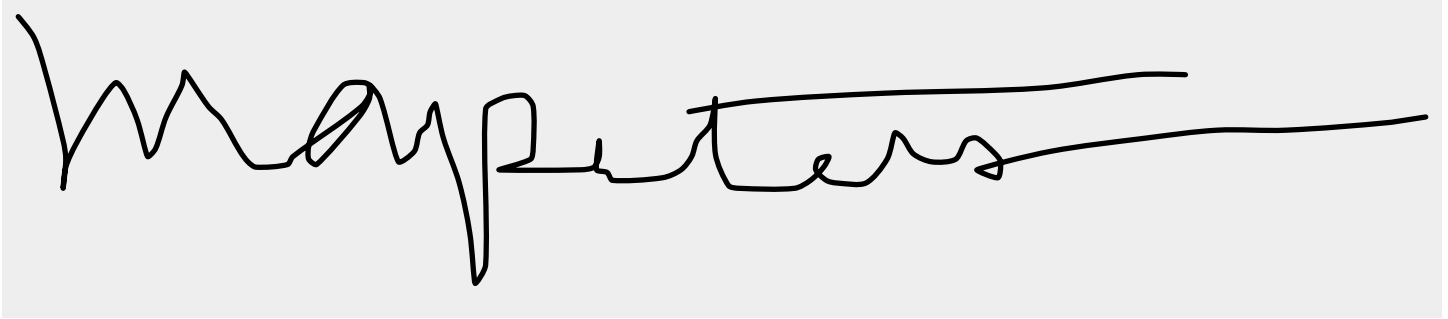
**D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

<https://www.sfcc.edu/54536-2/>

---

This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).

A handwritten signature in black ink, appearing to read "Robert Moore", is written on a light gray background.

**Date**

Mar 29 2021

## Upload Assessment

**Completed** - Mar 29 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

### [POLS 2210 Student Assessment](#)

**Filename:** POLS\_2210\_Student\_Assessment.pdf **Size:** 76.4 kB

## Upload Rubric

**Completed** - Mar 29 2021

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

### [POLS 2210 Critical Thinking Assessment Rubric](#)

**Filename:** POLS\_2210\_Critical\_Thinking\_Assessm\_cVuES6T.pdf **Size:** 71.1 kB

# Application: 0000001464

Robert Moore - Robert.Moore@rm01.enmuros.cc.nm.us  
NM General Education Curriculum

## Summary

**ID:** 0000001464

**Status:** Under Review

**Last submitted:** Mar 24 2021 01:35 PM (MDT)

# Application Form

Completed - Mar 24 2021

## Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.

- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

### Contact Information

Name	Robert Moore
Title	Assistant VP
Phone	5756247001
Email	<a href="mailto:robert.moore@roswell.enmu.edu">robert.moore@roswell.enmu.edu</a>

### Submitting Institution

Name of HEI	ENMU-Roswell
Submitting Department	English

### Chief Academic Officer

Name	Annemarie Oldfield
Email	<a href="mailto:annemarie.oldfield@roswell.enmu.edu">annemarie.oldfield@roswell.enmu.edu</a>

### Registrar

Name	Linda Neel
Email	<a href="mailto:linda.neel@roswell.enmu.edu">linda.neel@roswell.enmu.edu</a>

**Is this application for your entire system (ENMU, NMSU, & UNM)?**

No

**Institutional Course Information**

Prefix	ENGL
Number	2630
Title	British Literature I
Number of credits	3

**Was this course previously part of the New Mexico General Education curriculum?**

Yes

**Co-requisite Course**

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)

**New Mexico Common Course Information**

Prefix	ENGL
Number	2630
Name	British Literature I

**A. Content Area and Essential Skills**

## To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Humanities - Information & Digital Literacy, Critical Thinking, Personal & Social Responsibility

## B. Learning Outcomes

### List all common course student learning outcomes for the course.

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

1. Read and discuss representative works of British writers from its origins in Old English to the 18th century to understand cultural and historical movements which influenced those writers and their works.
2. Identify the characteristics of various British literary genres, such as the essay, novel, short story, poetry, and dramatic literature.
3. Apply effective analytic and interpretive strategies to British literary works using academic conventions of citation and style.

### Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

NA

## C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

### **Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.**

*In this box, provide a narrative that explains how the proposed course addresses **all** of the components of critical thinking.*

[\*Problem Setting:] During the semester, students submit multiple types of writing, including reflective documents, response essays, and analytical research papers; they participate in discussions nearly each class where they must determine and tackle a particular problem or issue the reading presents; they offer presentations, work in small groups to explore and present findings, and share discoveries informally with classmates; and they work both individually and in small groups on creative projects (like writing a diary in a specified author's voice).

[Evidence Acquisition:] Students access and consider evidence available through their assigned course texts, the library's general collection, and the University's numerous databases (e.g., EBSCO, Academic Search Complete, ProQuest, JSTOR, etc.) to support their observations, analyses, and arguments forwarded in class and on paper. In many assignments like the final research essay, students must consider and interject professional critical analysis and other documentation to bolster, expand, or otherwise supplement their original ideas. Several assignments, like their presentations, are designed to enhance students' research and discovery skills and reward effective use of outside sources.

[\*Evidence Evaluation:] Discussions compel students to respond to primary texts, other students' positions, as well as professional critiques / reviews; the discussions and written responses model techniques of literary and cultural evaluation. For many of the arguments students present (reflective essays), we emphasize currency, relevance, authority, accuracy, and purpose. Students are working on

creating their own credible arguments; many assignments make conscious the techniques of evaluation necessary to assure thoughtful and hearty presentation (focused / evaluated annotation of texts is an example).

[\*Reasoning/Conclusion(s):] Students arrive at defensible, relevant, and interesting conclusions based on sound and creative premises in their essays, presentations, short assignments, projects, and journaling / annotation. They are guided to ask questions, posit answers, and support their answers through different strategies of deductive reasoning. Repeated exposure to primary and secondary sources allow students to engage examples of good and poor reasoning, logical fallacies, misguided conclusions, affirming organization, and general patterns of argument valuable for college-level academic discourse.



**Personal & Social Responsibility. *Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global***

*In this box, provide a narrative that explains how the proposed course addresses 2 of the components of personal & social responsibility.*

[\*Intercultural Reasoning and Intercultural Competence:] During the semesters, through readings, research, and discussions, students encounter a variety of socio-cultural issues in the literature of the time period, prior and succeeding history, and contemporary culture; examine how past socio-cultural issues have informed the present by comparing and contrasting our time with historical periods; and learn to appreciate and approach differing perspectives, lifestyles, ideological stances, etc., that exist in different areas of the British sphere of influence across generations. Student progress is measured in part on their ability to recognize differing perspectives in British literature as they exist across multiple cultures, time periods, and continents and reflect their understanding in essays, projects, and presentations; many of the assignments ask them to engage, react to, and otherwise consider issues most relevant to personal and social responsibility—such as law and order, moral and religious attitudes, ethical mores, and economic justice / disparities—including their annotation / journaling, reflective essays, and projects.

[\*Civic Knowledge and Engagement—Local and Global:] Across the semester, students tackle contemporary and past socio-cultural and political issues that inform their primary source literature. Students explore the local and global contexts surrounding the creation, distribution, and context of their assigned primary sources—drawing connections across diverse points of interest from politics to meat packing, education to dance halls (one project, for example, asks them to imagine themselves as a citizen and to construct a story of their experience). They strive to contextualize academic and literary discourses with global movements, structures, and attitudes. Nearly every primary text embraces the conversation of civic responsibility either as a critique, a model, or an investigation of communities in action; the texts provide the leaping-off point for conversations about how the individual is in conflict with, correspondent to, or estranged from civic duties, responsibilities, and obligations; their annotation and essays allow them to reflect and sharpen their understanding.

**Information & Digital Literacy. *Authority and Value of Information; Digital Literacy; Information***

## ***Structure; and Research as Inquiry***

*In this box, provide a narrative that explains how the proposed course addresses **3** of the components of digital literacy.*

[\*Digital Literacy / Information Structures:] Students master Blackboard both to initiate and participate in several course discussions, communicate with their classmates and instructor, check their grades, and receive course-wide and institutional updates and use Teams for course meetings, faculty office hours, document sharing, and other communication. Students engage other important digital tools, including email, PowerPoint, web browsers, and often other platforms for communication, research, and production of artifacts like Instagram. Students have access to tutoring services as well as a wealth of online tutorials and services available to assist their academic progress (YouTube videos, tutorials, Purdue Owl, etc.). These digital tools manifest in their presentations, their research for essays, and their formal explorations of topics and posed questions.

[\*Information Structures:] Students learn skills to navigate online research databases and to embrace the library, both physical and virtually, as an enormous campus resources to facilitate and conduct research and investigation. They have access to and are required to interact with the library's digital resources, including e-Books, electronic articles, and electronic reference works, especially with the final essay but also their reflective work.

[\*Research as Inquiry:] Assignments and academic interaction in the classroom emphasize a student's ability to initiate, conduct, and arrive at conclusions through a variety of research methods. The course teaches students, first, to ask good questions and then to explore through personal and academic channels various forms of knowledge that assist them in drawing a conclusion. In the final essay, for example, they are asked to form a thesis in response to a question and construct an argument. Students learn to supplement their observations with an array of support, including quotations from source material, professional commentary integrated into their writing (essays, annotations, reflections, projects), and other research. Assignments challenge students to appreciate their role in the knowledge-making adventure of academic, scholarly investigation through the process of asking questions and seeking solutions that are well-supported and engaging. Sometimes, they answer questions the faculty member proposes; sometimes, they generate their own inquiry. Nearly every project or assignment requires students to embrace the "research as inquiry" model, but especially their projects (like generating a diary from an imagined character from the time period).

#### D. Assessment Plan (Must be on file with HED by August 1, 2019)

Link to Institution's General Education Assessment Plan

[https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan\\_ENMURoswell.pdf](https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan_ENMURoswell.pdf)

This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).

A handwritten signature in black ink, appearing to read "Rm / Amo", is displayed on a light gray background.

Date

Mar 24 2021

## Upload Assessment

Completed - Mar 24 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

### [ENGL 2630 Assignment](#)

Filename: ENGL\_2630\_Assignment.pdf Size: 522.0 kB

## Upload Rubric

Incomplete

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

**Application: 0000001535**

## Summary

**ID:** 0000001535

**Status:** Under Review

**Last submitted:** Mar 29 2021 09:28 PM (MDT)

## Application Form

**Completed** - Mar 29 2021

## Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

### Contact Information

Name	Teun Fetz
Title	Associate Professor of Music
Phone	505-566-3386
Email	<a href="mailto:fetzt@sanjuancollege.edu">fetzt@sanjuancollege.edu</a>

### Submitting Institution

Name of HEI	San Juan College
Submitting Department	Music

### Chief Academic Officer

Name	Adrienne Forgette
Email	<a href="mailto:forgettea@sanjuancollege.edu">forgettea@sanjuancollege.edu</a>

## Registrar

Name	Sherri Schaaf
Email	<a href="mailto:schaafs@sanjuancollege.edu">schaafs@sanjuancollege.edu</a>

## Is this application for your entire system (ENMU, NMSU, & UNM)?

Yes

## Institutional Course Information

Prefix	MUSC
Number	2150
Title	Roots of American Popular Music History
Number of credits	3

## Was this course previously part of the New Mexico General Education curriculum?

Yes

## Co-requisite Course

Prefix	none
Number	none
Title (if applicable)	(No response)

## New Mexico Common Course Information

Prefix	MUSC
Number	2150
Name	Roots of American Popular Music

### A. Content Area and Essential Skills

#### To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Creative & Fine Arts - Communication, Critical Thinking, Personal & Social Responsibility

### B. Learning Outcomes

#### List all common course student learning outcomes for the course.

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

Upon successful completion of the course, the student will be able to... 1. Be familiar with the history of the African American, European American, Latin American, Caribbean, and Native American subcultures.  
2. Understand and be able to recognize the musical styles and instruments that were/are being used by these groups.  
3. Be able to identify the components of modern American pop music that were derived from these subcultures.

## Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

1. Develop a vocabulary of musical terms, and be able to describe music using those terms.
2. Demonstrate knowledge of performers and composers, their music and their relationship to historical periods.
3. Recognize how music is played and plays a political, social, and cultural function.
4. Identify well-known pieces and the historical and social context in which they were composed.
5. Demonstrate basic understanding of music notation and musical communication

### C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

**Communication. Genre and Medium Awareness, Application and Versatility; Strategies for Understanding and Evaluating Messages; and Evaluation and Production of Arguments.**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of communication.*

Students skills are being assessed by:

- Written chapter summaries.
- Written and oral responses to questions from the textbook and Professor's prompts.
- Testing on chapters in both written and listening exam formats. Students must study and process information as well as recognize specific songs and artists to identify what they are listening to.



- Presentation by each individual student based on the artist/band of their choice. Presentation assessments include timing of the presentation for advanced preparation, content knowledge, focused speaking and clarity of the student's voice projecting to the class. This is a mock "radio show" podcast.
- Written concert reviews which the student must choose a live music performance and write about their experience and musical observations.

Examples of genre and medium awareness include the students' ability to recognize melodic patterns and voices. They are asked to find the melody and interpret the lyrics if it's a vocal based song. They are also asked to recognize the beat or pulse of the song but identifying the tempo of the music.

Students are also exposed and expected to communicate in written and verbally in class their ability to recognize the Popular music styles and forms that have developed through American music culture with emphasis on ethnic diversity in popular music genres such as New Orleans Dixieland, the blues, ragtime, swing, country and western, rhythm and blues both acoustic and electric, rock and roll, rap, hip hop, folk, Broadway musicals and Latin based popular songs in America. This conveys cultural enrichment.

Application and versatility are addressed by incorporating technology, creating an inclusive classroom, and focusing on engagement. We embrace individual interests in terms of preferred genres of music, and learn what other students are listening to through the radio show presentation assignment. They learn how improvisational skills are used in popular music. No one goes through the day without engaging in music in some way, and we are trying to change what is considered appropriate in music education. Why can't we discuss hip hop or R&B in a classroom setting? We use technology every day by playing recordings in class through YouTube and music websites, and engaging in power points addressing key ideas and topics. Students are expected to listen to recordings and evaluate what they hear outside of class by spending time listening and writing down key elements of songs and artists. We discuss these in class and it prepares them for tests.

Inclusivity in a contemporary music classroom means engaging students of all learning styles, backgrounds, and ability levels. As an educator, I try to be versatile and relate to my students and find ways that present diversity, adapts to the needs of all learners, and provides opportunities for collaboration between students.

Strategies for understanding and evaluating messages are incorporated by active listening in the classroom. This is one reason why regular class attendance is important. Students understand different stages of the listening process. They identify effective listening strategies. They participate in the listening and group discussions. They become active learners through class discussions, writing assignments, and student led group discussions.

Assessment activities for evaluation and production of arguments are addressed by asking students to evaluate artistic intent or artistic value in pop music, versus the entertainment factor? We also have conversations, journal assignments, written questions, their radio show presentation, and a final written evaluation which is their perspective of what they hear and experience through their concert reviews by attending a live music performance.

***Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.***

*In this box, provide a narrative that explains how the proposed course addresses all of the components of critical thinking.*

In the classroom I try to teach critical thinking and problem solving. Instead of giving students the answers, I ask questions that will clarify the process and lead to better solutions from the students. Students will define the problem, come up with solutions based on their previous experience, create, and then reflect on what they've created.

One example of problem setting is in analyzing music. I play several music works for students to analyze. For example, different movie music themes. John William's "Jaws" is a favorite. I ask questions to get students thinking:

"What picture was the composer trying to paint?" "Fear," is usually the answer. "In your opinion, what expressive quality did the composer use most effectively to paint that picture?" The most frequent answer is "melody." The low-pitched half step at the beginning of the piece creates fear. Other answers could be:

Tempo: by speeding up, the listener knows the shark is nearby.

Tone color: an instrument played in the lower range is much more ominous.

Articulation and dynamics: getting louder or accentuating certain sounds.

Students sometimes ask me to experiment with other intervals and pitch levels on the piano to see what the effect would be. These type of exercises asks them to predict what expressive qualities would capture audience interest, tapping into their critical thinking and problem-solving abilities.

We promote critical thinking by basing teaching on challenges and issues presented for investigation, as well as encouraging reflection. As music offers the repeated challenge of situations in which there is no standard or approved answer, it can promote critical thinking. Students evaluate the details of the music we read and listen to and come to conclusions based on sound evidence, well-reasoned evaluation and the use of problem-solving skills.

Music offers the opportunity to compare the effects of a wide range of experiences. In class we examine the effects of musical experience on the development of three aspects of musical structure: pitch organization, rhythm, and emotional expression. The students review the evidence for the role of experience in

causing these differences. Student acquire knowledge and evaluate how music varies across cultures, and the basic emotions in music.

An example of a goal in evidence evaluation is the ability of the student to recognize musical phrases and form from listening, without the print music in front of them. This skill also relates to reasoning and conclusion. By being able to identify the different parts of the form of a song or piece, they are addressing those critical thinking skills.

For example, in a typical pop music tune, there is an Introduction, and Verse-Chorus form. I ask the student to identify when the Introduction occurs, when the verses occur and when the chorus occurs. Does the piece have a coda or outro? They have to recognize and acknowledge the differences in the separate sections of the music. Often the chords in the verse are different from the chorus etc. Recognizing those elements by ear promotes critical thinking, reasoning and conclusion.

Another example of how I like to use critical thinking and reason and conclusion is in asking the students to communicate how does the music affect you? Music affects you in many ways; however, it primarily affects your brain, through which the rest of your body can be affected. It has also been proven that music has a huge effect on your mood. As research shows, music not only affects what kind of mood we may be in, but we also seem to have a habit of choosing music based on the moods we are already feeling. Music also benefits you in many ways. Some of these benefits are: easing pain, helping patients recover post-surgery, helping premature babies grow, improving your heart, enhancing blood vessel function and even aiding in exercise. I ask them to demonstrate and discuss and write about their experiences and opinions on how music affects them and why they choose to listen to specific songs or styles of music. This is critical thinking.

---

**Personal & Social Responsibility. *Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global***

*In this box, provide a narrative that explains how the proposed course addresses **2** of the components of personal & social responsibility.*

This course explores the ideas of music in society and its cultural relevance and is designed to increase the students' appreciation of music as well as to enhance their listening skills. Students are introduced to various periods, styles, and composers of music and become acquainted with knowledge and appreciation of rock and roll music from various cultures and times.

In terms of personal and social responsibility, I think connection with live Music in your community and the art form in general are key. I also promote personal reflection through large group discussions, partner activities, and music or song journals documenting what they listen to. These prompts can develop useful personal and social skills, such as taking ownership of their personal connection with music and how it may be a positive aspect to their overall life.

To me, Intercultural competence is the ability to communicate effectively and appropriately with students who are linguistically and culturally different from ourselves. And recognizing other culturally different music's from our own. For example, a student from a foreign country is sure to have a different perspective of how popular music pertains to them, which would be different than an American raised person. Looking and listening at the music of different cultures is central to intercultural communication and information.

In class we examine that American popular music, and more specifically rock and roll is a genre of popular music that evolved in the United States during the late 1940s and early 1950s. It originated from Black American music such as gospel, jump blues, jazz, boogie-woogie, rhythm and blues, and country music. Essentially it is a blend of African American music heritage with Caucasian heritage. For a white person to be perceptive to the African American tendencies in pop music and rock and roll creates intercultural reasoning and competence.

Today's world is in dire need of creative solutions to the challenges of sustainable community development, trauma, health and well-being stemming from a host of factors such as poverty, disease, economic uncertainty and war. In class, I ask the students to communicate and demonstrate how music can be looked at as a resource to effectively address these and other social and economic issues. Music has been and is still being used as a vital force of self-expression, communication, empowerment and healing in a wide range of activities: social, political, educational, religious, and as a release from the daily tensions of life. Current research shows that music, as well as other forms of cultural expression, is an effective resource in the healing process of individuals and groups who have been emotionally and physically afflicted. Music is an extremely cost-effective and powerful language that all cultures relate to naturally. Music is also a direct and potent tool in two major areas: sustainable urban and rural

community building and the healing process of individuals and communities. Pointing out these elements is central to sustainability and the natural and human worlds.

The philosophical literature of music education has transformed our understanding of how the arts affect our lives, how they illuminate our sense of identity, and how they unite us in collective activities that are unique and personal, yet also shared and universal. This work is part of the branch of philosophy called aesthetics. Students are asked to communicate and write how the music affects them and what it makes them feel. They are asked, how does the music connect with your emotional state and mentality.

A music director who wants to facilitate team building can promote philosophies and activities to strengthen the ensemble in each of the areas of team building: goals, commitment, communication, leadership and role identification, social support, and team identity. The productivity of a team versus those of an individual has obvious benefits for the creative project. Of course, a team has a larger cumulative knowledge base across more minds with more ideas. Used effectively, this results in more condensed production processes. If the team is a well-organized one, this also ensures better productivity, often higher quality, more creative output, longer-lasting motivation, greater efficiency and faster delivery. Students work in partnership with class colleagues on assignments analyzing the recordings and incorporating musical theories. This small group work involves students debating topics and sharing conclusion with the larger class.

This principle of civic engagement is particularly essential for the community colleges. For many of our students, community college may be the only higher learning institution they will attend. As a result, civic learning must play a critical role in their educational arc—not as a discipline, necessarily, but as a framework for understanding, learning, and acting in the world. Such a framework will equip students with the skills and knowledge base to engage with, shape, and revitalize the tenets of a democratic society. In my classes, students learn about local opportunities that work to impart civic knowledge. Music is a particularly pertinent civic possibility that I push my students to pursue in their personal and professional lives to get the most out the performing arts experience.

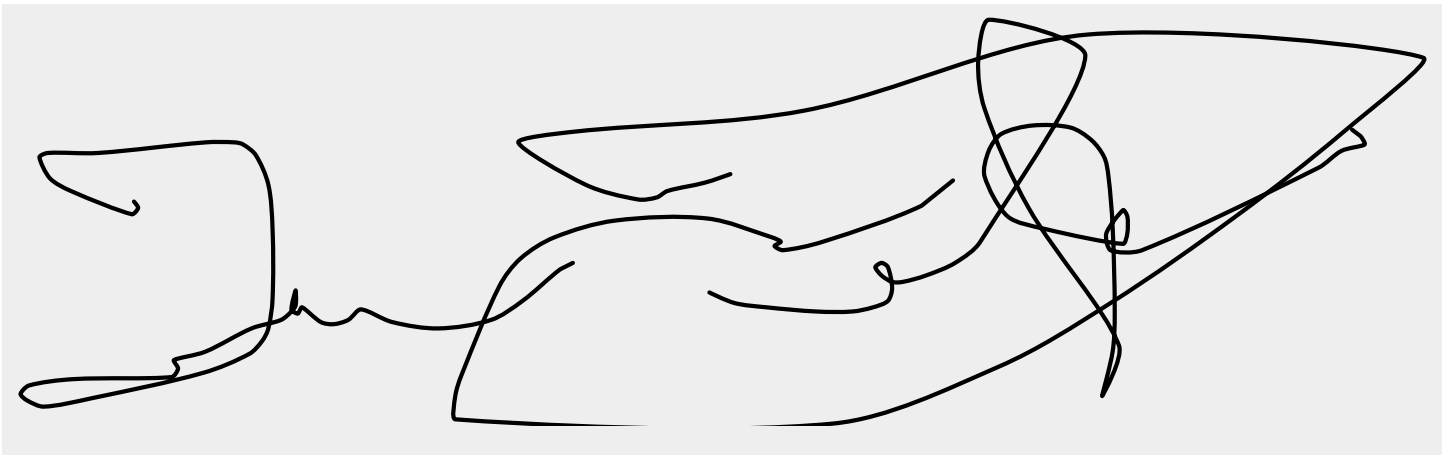
One required assignment directly tied to civic engagement and discourse is their concert review paper in which they must attend a live music performance of their choosing and then write up a perspective paper giving general personal viewpoints on what they perceived at the performance.

## D. Assessment Plan (Must be on file with HED by August 1, 2019)

Link to Institution's General Education Assessment Plan

[https://www.sanjuancollege.edu/media/sanjuancollegeedu/documents/learning/General-Education-Assessment-Plan-final-Fall-2019-\(002\).pdf](https://www.sanjuancollege.edu/media/sanjuancollegeedu/documents/learning/General-Education-Assessment-Plan-final-Fall-2019-(002).pdf)

**This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).**

A large, stylized handwritten signature in black ink, consisting of several loops and flourishes, is displayed on a light gray background.

**Date**

Mar 29 2021

## Upload Assessment

**Completed** - Mar 29 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

### [Concert Review&Critique](#)

**Filename:** Concert\_ReviewCritique\_WlRcHw5.pdf **Size:** 90.5 kB

## Upload Rubric

**Completed** - Mar 29 2021

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

## [Concert Review Rubric](#)

**Filename:** Concert\_Review\_Rubric\_Llw1wCi.pdf **Size:** 126.4 kB

# Application: 0000001431

Don Scroggins - don.scroggins@clovis.edu  
NM General Education Curriculum

### Summary

**ID:** 0000001431

**Status:** Under Review

**Last submitted:** Mar 17 2021 10:07 AM (MDT)

## Application Form

**Completed** - Mar 17 2021

## Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

# Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

### Contact Information

Name	Don Scroggins/Brandon Finney
Title	Division Chair/Instructor
Phone	575-769-4909/575-769-4933
Email	<a href="mailto:scrogginsd@clovis.edu">scrogginsd@clovis.edu</a> / <a href="mailto:finneyb@clovis.edu">finneyb@clovis.edu</a>

### Submitting Institution

Name of HEI	Clovis Community College
Submitting Department	Math

### Chief Academic Officer

Name	Dr. Robin Jones
Email	<a href="mailto:jonesr@clovis.edu">jonesr@clovis.edu</a>



## Registrar

Name	Kari Smith
Email	<a href="mailto:smithk@clovis.edu">smithk@clovis.edu</a>

### Is this application for your entire system (ENMU, NMSU, & UNM)?

Yes

## Institutional Course Information

Prefix	MATH
Number	2430
Title	Discrete Mathematics
Number of credits	3

### Was this course previously part of the New Mexico General Education curriculum?

Yes

## Co-requisite Course

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)

## New Mexico Common Course Information

Prefix	MATH
Number	2430
Name	Discrete Mathematics

### A. Content Area and Essential Skills

#### To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Mathematics - Communication, Critical Thinking, Quantitative Reasoning

### B. Learning Outcomes

#### List all common course student learning outcomes for the course.

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

- a. Mathematical Logic and Mathematical Reasoning
  - 1. Know what propositions are and how to obtain their truth values.
  - 2. Be able to test for propositional equivalences using truth tables.
  - 3. Be able to work with predicates and quantifiers and give their truth values.
  - 4. Be able to prove and/or disprove basic results involving integers utilizing direct methods, contradiction, contra position and/or counter example.
  - 5. Be able to prove results using mathematical induction.
- b. Elementary Set Theory & Integer-Valued Functions
  - 1. Be able to construct sets from basic properties and test for set membership.
  - 2. Be able to perform the basic operations on sets including union, intersection, and complementation.
  - 3. Understand the meaning of cardinality of finite sets and certain infinite sets.

4. Be able to represent sets using bit strings.
  5. Be able to evaluate integer-valued functions.
  6. Be able to find the  $n$ th term of sequences given by formulas or by recurrence relations.
  7. Be able to find the sums of finite series.
- c. Factorization, Prime Numbers, Modular Arithmetic, and Matrices
1. Be able to apply prime factorizations of numbers to find greatest common divisors and least common multiples.
  2. Be able to use the Euclidean algorithm to find greatest common divisors.
  3. Be able to use modular arithmetic in applications.
  4. Be able to add, subtract, and multiply matrices.
  5. Be able to perform basic operations and Boolean products for zero-one matrices.
- d. Binary Systems
1. Be able to convert decimal representations to binary and vice-versa.
  2. Be able to perform basic arithmetic in binary representation.
  3. Be able to convert binary representation to octal and hexadecimal representations and vice-versa.
- e. Combinatorics & Basic Probability
1. Be able to perform basic counting arguments involving addition and multiplication.
  2. Be able to use the pigeon-hole principle.
  3. Be able to solve basic problems involving permutations and combinations.
  4. Be able to calculate elementary discrete probabilities.
- f. Graph Theory
1. Be able to identify certain basic types of simple graphs (i.e., complete, cycles, bipartite, etc.)
  2. Be able to construct graphs from adjacency matrices and incidence matrices and vice versa.
  3. Be able to identify when certain types of graphs are isomorphic.

---

### **Institution-specific Student Learning Outcomes**

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

n/a

## C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

**Communication. Genre and Medium Awareness, Application and Versatility; Strategies for Understanding and Evaluating Messages; and Evaluation and Production of Arguments.**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of communication.*

Students will learn how to communicate in several different mediums, but mainly orally and in writing. Students will communicate orally during class discussion regarding set theory, graph theory, and Euclidean algorithms, among other conceptual information. Students will communicate in writing on exams and homework while completing truth tables, writing mathematical proofs (including by proof by induction), and while forming basic counting arguments.

Students will communicate their understanding of theorems by identifying and evaluating quantifiers, recognizing definitions, and analyzing their proofs using known theorems. Students will also learn to evaluate graphs and charts that were formed by others using mathematical information to determine their type and validity.

Students will learn how to use their skills on understanding and evaluating messages to develop their own arguments. For example, students will use previous theorems and known proof strategies (from the proofs of other theorems) to prove new theorems. Furthermore, students will learn to use truth tables to create equivalent statements. These statements will be communicated through other truth tables and orally/written.

Assessment of Communication skills will be accomplished using formal exams, essays, discussion forums, and oral presentations.

**Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of critical thinking.*

In this course, students will learn to delineate problems by determining and stating the true meaning of the problem. For example, students will read/hear a problem asking for greatest common divisors and state the need for the Euclidean algorithm. As another example, students will read/hear a problem about number of possible outcomes and state the need for permutations and combinations.

Students will learn how to use the information given in a problem (be it an application problem or otherwise) and gather important information, including truth values, cardinality of finite sets, frequency, and recurrence relations. Students will then use this information to solve problems involving truth tables, finite and infinite sets, basic probability, and sequences.

Students will learn how to use truth tables to determine the probable truth and equivalence of a statement. Students will learn to utilize the formulas and definitions of basic probability to determine the relevance of a set's data to a problem.

Students will use the information they have collected and evaluated to solve the problems they previously delineated. For examples, students will use the truth values they collected and established to complete truth tables and make arguments of statement equivalence. Furthermore, students will use the frequency gathered to calculate probability and make statements on the likelihood of different events occurring.

Critical Thinking skills will be assessed with formal exams, quizzes, and discussion forums.

**Quantitative Reasoning. Communication/Representation of Quantitative Information; Analysis of Quantitative Arguments; and Application of Quantitative Models**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of quantitative reasoning.*

Students will learn how express several mathematical concepts in several different mediums. For example, students will express sets graphically using Venn Diagrams and the number line, as well as symbolically using set and interval notation. Students will express series as a list of numbers and as an equation. Students will verbally state different theorems and principles, including The Euclidean Algorithms and the Pigeon-Hole Principle.

Students will prove theorems of quantitative arguments, most notably theorems of numeric equivalence through Proof by Induction. Students will also use known theorems to analyze arguments for validity throughout the course, like statements regarding the convergence of series.

Students will use the concepts learned in this course to solve application problems relating to statistics, sequences, series, and truth tables, among many others. Students will learn to express quantitative solutions into words with regard to the application problems listed above.

Quantitative Reasoning skills will be assessed with formal exams, essays, discussion forums, quizzes, and oral presentations.

---

**D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

<http://www.clovis.edu/pathwaychannels/faculty/assessment/CCCGenEdAssessmentHandbook.pdf>

---

This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).



**Date**

Mar 17 2021

## Upload Assessment

**Completed** - Mar 17 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

### [MATH 2430 Discrete Comprehensive Exam sample assessment](#)

**Filename:** MATH\_2430\_Discrete\_Comprehensive\_Exam\_\_H2iBSP4.pdf **Size:** 662.6 kB

## Upload Rubric

**Completed** - Mar 17 2021

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

### [Discrete Mathematics Sample Syllabus](#)

**Filename:** Discrete\_Mathematics\_Sample\_Syllabus.pdf **Size:** 66.9 kB

**Application: 0000001447**

Michael Bilopavlovich - michaelb@mesalands.edu  
NM General Education Curriculum

**Summary**

**ID:** 0000001447

**Status:** Under Review

**Last submitted:** Mar 19 2021 12:29 PM (MDT)

## Application Form

**Completed** - Mar 19 2021

## Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

### Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

### Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

### Tips for Completing the General Education Course Application



- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

### Contact Information

Name	Michael Bilopavlovich
Title	Faculty
Phone	5754614413 ext. 150
Email	<a href="mailto:michaelb@mesalands.edu">michaelb@mesalands.edu</a>

### Submitting Institution

Name of HEI	Mesalands Community College
Submitting Department	Academic Affairs

### Chief Academic Officer

Name	Natalie Gillard
Email	<a href="mailto:natalieg@mesalands.edu">natalieg@mesalands.edu</a>

### Registrar

Name	Forrest Kaatz
Email	<a href="mailto:forrestk@mesalands.edu">forrestk@mesalands.edu</a>

**Is this application for your entire system (ENMU, NMSU, & UNM)?**

No

**Institutional Course Information**

Prefix	ENG
Number	201 B
Title	Types of Literature: Novel
Number of credits	3

**Was this course previously part of the New Mexico General Education curriculum?**

Yes

**Co-requisite Course**

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)

**New Mexico Common Course Information**

Prefix	ENGL
Number	2370
Name	Introduction to the Novel

**A. Content Area and Essential Skills**

## To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Humanities - Information & Digital Literacy, Critical Thinking, Personal & Social Responsibility

## B. Learning Outcomes

### List all common course student learning outcomes for the course.

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

1. Read a selection of fictional works.
2. Identify literary devices of long fiction, such as plot, character, setting, point of view, and theme.
3. Use critical approaches and engage in discussions to analyze fiction.
4. Define the strengths and limitations of long fiction forms.

### Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

N/A

## C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

### ***Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.***

*In this box, provide a narrative that explains how the proposed course addresses **all** of the components of critical thinking.*

Students will define problems, evaluate issues, and formulate research questions to guide their inquiries. They will complete reading and research tasks to collect, qualify and evaluate sources and data for credibility, relevance, and possible bias. Students will cite their sources in a systematic and respectful manner. Students will consider rhetorical, historical, and cultural contexts as they develop and refine their theses and ideas, and they will effectively communicate their conclusions and their underlying reasoning through written, oral or digital presentations.

Critical thinking will be assessed in the formation and articulation of ideas within students' essay projects as well as in written and oral responses to assigned readings and homework. Students will demonstrate the ability to analyze a text and identify various features, such as rhetorical context, intended audience, credibility and bias, and rhetorical modes.

---

### ***Personal & Social Responsibility. Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global***

*In this box, provide a narrative that explains how the proposed course addresses **2** of the components of*

### Intercultural reasoning and intercultural competence

Through multiple writing and discussion assignments throughout the course, students will Explicate, Compare, and Interpret texts to gain insight into the people of other times and other cultures, and reflect on how their own values and moral structures are both a product of and a reaction to their own native environments. Student responses may take the forms of Argument or Discussion, and students will be encouraged to 'interrogate' texts to discern their deeper meanings. Comparisons with their own experiences will allow students to develop greater sensitivity and an awareness of the diversity of social, political, and cultural issues which characters may face. Considerations of characters' motivations and desires will help students develop a greater appreciation for the ways art (literature) may illuminate psychology and the human condition.

### Ethical Reasoning

Drawing on history, psychology and their own experiences, students will analyze the characters, motivations and sense of ethical responsibilities portrayed by characters and cultures in works of literature. Many stories and novels involve moral dilemmas and difficult choices; studying the evaluation, decision-making process and consequences of choice by others helps students formulate and examine their own approach to matters of ethics, integrity, philosophy, and what it takes to lead a 'moral life'.

### Collaboration skills, teamwork and value systems

Through discussion, debate, group projects, and presentations, students will practice collaborative and interactive modes of inquiry and the respectful free exchange and critique of ideas. Collaboration and group projects promote planning skills, division of labor, esprit de corps and mutual accountability - which are all highly prized skills in academia and the contemporary workplace.

The habits of mutual respect, collaboration, and cooperative problem-solving may also impact how young adults will react to larger societal dilemmas such as racism, gender equality, environmental responsibility, and income inequality.

**Information & Digital Literacy. Authority and Value of Information; Digital Literacy; Information Structure; and Research as Inquiry**

*In this box, provide a narrative that explains how the proposed course addresses **3** of the components of digital literacy.*

Students will acquire, assess, and communicate information across different mediums using digital tools. They will recognize the hazards and advantages of communicating in an integrated digital environment. Students will develop and pursue self-directed research which generates problem solutions or otherwise illuminates the complexity of issues and questions. They will document and share their inquiries using appropriate formats, tools, and digital presentation applications.

Information and digital literacy will be assessed throughout the semester as students utilize digital resources and word processing technology to research, compose, revise, format, and transmit their various assignments. Students will demonstrate competence utilizing research databases and other information tools to gather, organize and evaluate information, as well as their ability to navigate online learning platforms (where applicable) and standard electronic communications tools such as email, online chats, discussion forums, and digital meeting spaces such as Zoom or Skype.

**D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

<https://www.mesalands.edu/wp-content/uploads/2020/01/SLAC-Annual-Report-2018-19-Final.pdf>

**This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).**

NG

MB

## Date

Mar 19 2021

## Upload Assessment

**Completed** - Mar 19 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

### [ENGL 2370 Sample Assignment Novel](#)

**Filename:** ENGL\_2370\_Sample\_Assignment\_Novel.pdf **Size:** 165.7 kB

## Upload Rubric

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

## Application: 0000001480

Robert Moore - Robert.Moore@rm01.enmuros.cc.nm.us  
NM General Education Curriculum

### Summary

**ID:** 0000001480

**Status:** Under Review

**Last submitted:** Mar 25 2021 10:52 AM (MDT)

## Application Form

**Completed** - Mar 25 2021

## Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students do to develop the essential skills throughout the course.



### Contact Information

Name	Robert Moore
Title	Assistant VP
Phone	5756247001
Email	<a href="mailto:robert.moore@roswell.enmu.edu">robert.moore@roswell.enmu.edu</a>

### Submitting Institution

Name of HEI	ENMU-Roswell
Submitting Department	Humanities

### Chief Academic Officer

Name	Annemarie Oldfield
Email	<a href="mailto:annemarie.oldfield@roswell.enmu.edu">annemarie.oldfield@roswell.enmu.edu</a>

### Registrar

Name	Linda Neel
Email	<a href="mailto:linda.neel@roswell.enmu.edu">linda.neel@roswell.enmu.edu</a>

### Is this application for your entire system (ENMU, NMSU, & UNM)?

No

### Institutional Course Information

Prefix	HIST
Number	2110
Title	Survey of New Mexico History
Number of credits	3

**Was this course previously part of the New Mexico General Education curriculum?**

Yes

**Co-requisite Course**

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)

**New Mexico Common Course Information**

Prefix	HIST
Number	2110
Name	Survey of New Mexico History

**A. Content Area and Essential Skills**

**To which area should this course be added?**

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Humanities - Information & Digital Literacy, Critical Thinking, Personal & Social Responsibility

## B. Learning Outcomes

---

### List all common course student learning outcomes for the course.

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

1. Students will be able to EXPLAIN in their work how humans in the past shaped their own unique historical moments and were shaped by those moments, and how those cultures changed over the course of the centuries for the history of New Mexico from pre-Columbian times to the present day. Bloom Taxonomy's Cognitive Process: REMEMBER AND UNDERSTAND
2. Students will DISTINGUISH between primary and secondary sources, IDENTIFY and EVALUATE evidence and EMPATHIZE with people in their historical context. Bloom Taxonomy's Cognitive Process: ANALYZE, REMEMBER, EVALUATE, CREATE
3. Students will SUMMARIZE and APPRAISE different historical interpretations and evidence in order to CONSTRUCT past events. Bloom Taxonomy's Cognitive Process: UNDERSTAND, EVALUATE, APPLY
4. Students will IDENTIFY historical arguments in a variety of sources and EXPLAIN how they were constructed, EVALUATING credibility, perspective, and relevance. Bloom Taxonomy's Cognitive Process: REMEMBER, UNDERSTAND, EVALUATE
5. Students will CREATE well-supported historical arguments and narratives that demonstrate an awareness of audience. Bloom Taxonomy's Cognitive Process: CREATE, APPLY
6. Students will APPLY historical knowledge and historical thinking "in order to infer what drives and motivates human behavior in both past and present." Bloom Taxonomy's Cognitive Process: APPLY, ANALYZE

---

### Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

NA

## C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

### **Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.**

*In this box, provide a narrative that explains how the proposed course addresses **all** of the components of critical thinking.*

[\*Problem Setting:] During the semester, students explore a diverse array of information about New Mexico's history as a territory and a State from early settlers to current culture. Students participate in individual and group activities while learning the history of New Mexico's diverse populations (notably Hispanic and Indigenous), vibrant arts, and socio-economic development. Students share their reactions and experiences through reflective documents, quizzes, exams, and essays; they participate in discussions nearly each class where they share insights about assigned readings.

[Evidence Acquisition:] Students access and consider evidence available through their assigned course texts, the library's general collection, and the University's numerous databases (e.g., EBSCO, Academic Search Complete, ProQuest, JSTOR, etc.), and faculty-provided material to support their observations, analyses, and arguments forwarded in class discussion and on assignments. Several assignments, like their reflective essays, require them to rally information they have accumulated about influential New Mexicans, for example; other assignments, like the arts presentation, are designed to enhance students' research and discovery skills and reward effective use of outside sources (they are asked to research prominent New Mexican artists).

[\*Evidence Evaluation:] Discussions compel students to respond to the rich tableaux of New Mexico's history, primary texts (including novels, for example), other students' positions, as well as professional critiques and studies; the discussions and written responses model techniques of textual and cultural

evaluation. For many of the statements students make (in discussions, for example), we emphasize currency, relevance, authority, accuracy, and purpose. Students are working on creating their own credible opinions; many assignments make conscious the techniques of evaluation necessary to assure thoughtful and hearty presentation (in one exercise, they respond to a professional historian's accounting of a significant moment in New Mexico's history).

[\*Reasoning/Conclusion(s):] Students arrive at defensible, relevant, and interesting conclusions based on sound and creative premises in their short assignments. They are guided to ask questions, explore, surmise, posit opinions, and support their opinions through different strategies of deductive reasoning and Socratic teaching. Repeated exposure to primary and secondary sources (monographs, photographs, novels, film, faculty lecture) allow students to engage examples of good and poor reasoning, logical fallacies, misguided conclusions, affirming organization, and general patterns of argument valuable for college-level academic discourse.

**Personal & Social Responsibility. *Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global***

*In this box, provide a narrative that explains how the proposed course addresses 2 of the components of personal & social responsibility.*

[\*Intercultural Reasoning and Intercultural Competence:] During the semesters, through the observation and encounter of New Mexico history (both as a state and part of a larger, national tapestry) students immerse themselves in a variety of socio-cultural issues represented across time periods, cultures, regions, and styles; examine how past socio-cultural, geographic, historical influences informs modern New Mexico; and learn to appreciate and approach differing political, economic, religious, and other cultural forces that have affected New Mexico across generations. Student progress is measured in part on their ability to recognize and respond to New Mexico's unique cultures as they intersect, blend, and conflict with each other—from the border towns to the reservations; they reflect their understanding in short projects and quizzes; many of the assignments ask them to engage, react to, and otherwise consider the central ways New Mexico is truly intercultural.

[\*Civic Knowledge and Engagement—Local and Global:] Across the semester, students are introduced to New Mexico's history as a local and global phenomena, manifesting in both small towns and within larger historical populations (why "New" Mexico? Old Mexico plays a role); students learn about the influences of global culture on New Mexico (for example, how the Catholic church shaped much of New Mexico's politics); they learn not only about how larger influences shaped New Mexico, but about how local identities emerged from regional-specific concerns (water rights, landscape, military and political among others). One project, for example, asks students to consider the moral and military considerations related to the use of atomic weapons. Nearly every reading assignment, in terms of content, embraces the conversation of civic responsibility either as a critique, a model, or an investigation of communities in action; the novels, for example, provide the leaping-off point for conversations about how the individual is in conflict with, correspondent to, or estranged from society; the students' essay and discussions allow them to reflect and sharpen their appreciation of such issues.

---

**Information & Digital Literacy. *Authority and Value of Information; Digital Literacy; Information Structure; and Research as Inquiry***

*In this box, provide a narrative that explains how the proposed course addresses **3** of the components of digital literacy.*

[\*Digital Literacy / Information Structures:] Students master Blackboard both to initiate and participate in several course discussions, communicate with their classmates and instructor, check their grades, and receive course-wide and institutional updates. Many class sessions and/or meeting are held over Teams or Zoom. Students engage other important digital tools, including email, PowerPoint, web browsers, and often other platforms like Instagram for communication, research, and production of artifacts. Students have access to tutoring services as well as a wealth of online tutorials and services available to assist their academic progress (Youtube videos, tutorials, Purdue Owl, etc.). These digital tools manifest in their presentations, their research for essays, and their formal explorations of topics and posed questions.

[\*Information Structures:] Students embrace the library, both physical and virtually, as an enormous campus resources to facilitate and conduct research and investigation. They have access to and are required to interact with the library's digital resources, including e-Books, electronic articles, and electronic reference works, especially with a short essay that asks them to research and report back about a specific historical personage.

[\*Research as Inquiry:] Assignments and academic interaction in the classroom emphasize a student's ability to initiate, conduct, and arrive at conclusions/opinions through a variety of research methods. The course teaches students, first, to listen carefully and then to ask good questions. In the final project, for example, students are asked to consider and explain the complexities of New Mexico's path to statehood and how their personal experiences and family traditions reflect New Mexico's history and culture. Assignments challenge students to appreciate their role in the knowledge-making adventure of academic, scholarly investigation through the process of asking questions and seeking opinions that are well-supported and engaging. Their research is often guided by specific goals (they are asked, for example, to research an important representative of New Mexico's artistic community in relation to artistic developments across the nation), but often they are allowed to rummage around in more general ways (in an essay, for example, they can select any moment in New Mexico's history, explore, and then explain why the moment was important or pivotal). Nearly every project or assignment requires students to embrace the "research as inquiry" model, but their trial-and-error work with historical materials is the clearest evidence of their pursuit of knowledge through inquiry.

#### D. Assessment Plan (Must be on file with HED by August 1, 2019)

Link to Institution's General Education Assessment Plan

[https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan\\_ENMURoswell.pdf](https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan_ENMURoswell.pdf)

**This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).**

A handwritten signature in black ink, appearing to read "RM / AMO", is displayed on a light gray background.

**Date**

Mar 25 2021

## Upload Assessment

**Completed** - Mar 25 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

### [HIST 2110 Assignment](#)

**Filename:** HIST\_2110\_Assignment.pdf **Size:** 398.7 kB

## Upload Rubric

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

# Application: 0000001526

Michael Bilopavlovich - michaelb@mesalands.edu



## Summary

**ID:** 0000001526

**Status:** Under Review

**Last submitted:** Mar 29 2021 04:33 PM (MDT)

## Application Form

**Completed** - Mar 29 2021

## Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

# Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

## Contact Information

Name	Michael Bilopavlovich
Title	Faculty
Phone	5754614413 ext. 150
Email	<a href="mailto:michaelb@mesalands.edu">michaelb@mesalands.edu</a>

## Submitting Institution

Name of HEI	Mesalands Community College
Submitting Department	Academic Affairs

## Chief Academic Officer

Name	Natalie Gillard
Email	<a href="mailto:natalieg@mesalands.edu">natalieg@mesalands.edu</a>

## Registrar

Name	Forrest Kaatz
Email	<a href="mailto:forrestk@mesalands.edu">forrestk@mesalands.edu</a>

**Is this application for your entire system (ENMU, NMSU, & UNM)?**

No

**Institutional Course Information**

Prefix	MATH
Number	162
Title	Calculus I
Number of credits	4

**Was this course previously part of the New Mexico General Education curriculum?**

Yes

**Co-requisite Course**

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)

**New Mexico Common Course Information**

Prefix	MATH
Number	1512
Name	Calculus I

**A. Content Area and Essential Skills**

**To which area should this course be added?**

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Mathematics - Communication, Critical Thinking, Quantitative Reasoning

---

**B. Learning Outcomes**

---

## List all common course student learning outcomes for the course.

Common Course Student Learning Outcomes (find Common Course SLOs at:

<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

Students that successfully complete the course, will, by the end of the course, be able to

1. State, motivate and interpret the definitions of continuity, the derivative, and the definite integral of a function, including an illustrative figure, and apply the definition to test for continuity and differentiability. In all cases, limits are computed using correct and clear notation. Student is able to interpret the derivative as an instantaneous rate of change, and the definite integral as an averaging process.
2. Use the derivative to graph functions, approximate functions, and solve optimization problems. In all cases, the work, including all necessary algebra, is shown clearly, concisely, in a well-organized fashion. Graphs are neat and well-annotated, clearly indicating limiting behavior. English sentences summarize the main results and appropriate units are used for all dimensional applications.
3. Graph, differentiate, optimize, approximate and integrate functions containing parameters, and functions defined piecewise. Differentiate and approximate functions defined implicitly.
4. Apply tools from pre-calculus and trigonometry correctly in multi-step problems, such as basic geometric formulas, graphs of basic functions, and algebra to solve equations and inequalities.
5. State the main theorems of calculus correctly, including all conditions, and give examples of applications. These include the Intermediate Value Theorem, the Mean Value Theorem, the Extreme Value Theorem, and the Fundamental Theorem of Calculus.
6. Solve simple first and second order differential equations, either initial or boundary value problems, including problems where the derivative is given by a piecewise function, or when the initial value problem is described in words, such as in applications from physics, biology and engineering. Be familiar with the harmonic oscillator and describe period, amplitude, and phase shift of the trigonometric functions that appear.
7. Compute integrals using the method of substitution, including changing the bounds in the case of definite integrals.

## Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

N/A

---

### C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

**Communication. Genre and Medium Awareness, Application and Versatility; Strategies for Understanding and Evaluating Messages; and Evaluation and Production of Arguments.**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of communication.*

In MATH 1512 students learn how to communicate mathematical ideas visually (graphs, diagrams}, through oral and written language that utilizes appropriate mathematical vocabulary, and through numbers and mathematical symbols. Throughout the course, students will use written and graphical communication skills through the discussion of functions and the properties of their graphs. Students will also utilize various media to explain the continuity, average rate of change, and concavity of functions. Communication will occur through include written explanations, graphical representations and written mathematical expressions. Students will learn to determine the intent of the problem when selecting a communication medium. Students will evaluate and determine the validity of arguments regarding the continuity, differentiability and integrability of functions. Students will support their evaluation of the arguments using definitions and their subsequent consequences with the vocabulary mentioned above. Students will also produce their own mathematical arguments regarding the properties of a function, including differentiability, integrability, and/or continuity. Communication skills be regularly assessed throughout the course using student statements of continuity, of the derivative, of definite/indefinite integrals and their applications during class discussions, projects and formal written exams.

**Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of critical thinking.*

Students will learn how to use the primary definitions of Calculus (limit, derivative, and integral) in order to state the intent of application problems encountered throughout the semester. For example, in related rates of change problems, students will state the rate of change that the application problem depends on. As another example, when asked to find the position function given a velocity function, students must state that they are to find the indefinite integral and use the initial value to find the constant coefficient. Additionally, students will practice evidence acquisition during the semester when solving application problems by identifying initial values, vocabulary that implies differentiation (velocity, marginal cost/revenue, etc.), and gathering information about a function by mathematically determining critical values, inflection points, boundary points, and right- and/or left-side limits. Students will evaluate the evidence acquired by applying the appropriate definitions to interpret data. For example, students will evaluate a first-order differential equation by evaluating an indefinite integral. Furthermore, students will evaluate the continuity of a function by evaluating the right- and left-side limits to determine if a limit exists and is equal to the function value at that point. Students will develop conclusions after solving an application problem by relating their results back to the definitions used to evaluate the evidence. For example, once students have determined a function's behavior between critical points, they will relate this behavior back to the definitions increasing and decreasing on an interval. As another example, students will use their results from evaluating an indefinite integral to state the solution to a first-order differential equation. Critical thinking skills will be assessed using formal written exams, essays, projects, and discussions.



**Quantitative Reasoning. Communication/Representation of Quantitative Information; Analysis of Quantitative Arguments; and Application of Quantitative Models**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of quantitative reasoning.*

Throughout the course, students will use interval notation to express the behavior of a function; for example, to describe over which intervals a function is increasing, decreasing, constant, concave up, concave down, continuous, and differentiable. Students will obtain graphical representations of polynomial, rational, sinusoidal, logarithmic, and exponential functions using the appropriate quantitative reasoning skills that result from the analysis procedures developed in the course. Students will analyze arguments regarding the continuity, differentiability, and integrability of functions to determine their validity using the definitions and their quantifiers. Students will also interpret quantitative arguments regarding a function to solve a problem. For example, students will solve first-order differential equations by interpreting the structure of the equation. Furthermore, students must also be able to interpret a position function to evaluate a velocity and acceleration function. Students will solve application problems in the fields of physics, business, engineering and more. Examples of applications in this course are falling body equations; marginal cost, revenue, and profit functions; position, velocity, and acceleration functions; geometric optimization; and related rates of change. Quantitative reasoning skills will be assessed using quizzes, projects and formal written exams.

---

**D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

<https://www.mesalands.edu/wp-content/uploads/2020/01/SLAC-Annual-Report-2018-19-Final.pdf>

---

This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).

N G M B

**Date**

Mar 29 2021

## Upload Assessment

**Completed** - Mar 29 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

### [Math 1512 Sample Assessment March 2021](#)

**Filename:** Math\_1512\_Sample\_Assessment\_March\_2021.pdf **Size:** 1.2 MB

## Upload Rubric

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

## Application: 0000001532

Teun Fetz - fetzt@sanjuancollege.edu  
NM General Education Curriculum

### Summary

**ID:** 0000001532

**Status:** Under Review

**Last submitted:** Mar 29 2021 09:21 PM (MDT)

## Application Form

**Completed** - Mar 29 2021

# Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout

the course.

### Contact Information

Name	Teun Fetz
Title	Associate Professor of Music
Phone	505-566-3386
Email	<a href="mailto:fetzt@sanjuancollege.edu">fetzt@sanjuancollege.edu</a>

### Submitting Institution

Name of HEI	San Juan College
Submitting Department	Music

### Chief Academic Officer

Name	Adrienne Forgette
Email	<a href="mailto:forgettea@sanjuancollege.edu">forgettea@sanjuancollege.edu</a>

### Registrar

Name	Sherri Schaaf
Email	<a href="mailto:schaafs@sanjuancollege.edu">schaafs@sanjuancollege.edu</a>

### Is this application for your entire system (ENMU, NMSU, & UNM)?

Yes

### Institutional Course Information

Prefix	MUSC
Number	1130
Title	Music Appreciation: Western Music History
Number of credits	3

**Was this course previously part of the New Mexico General Education curriculum?**

Yes

**Co-requisite Course**

Prefix	n/a
Number	n/a
Title (if applicable)	n/a

**New Mexico Common Course Information**

Prefix	MUSC
Number	1130
Name	Music Appreciation: Western Music History

**A. Content Area and Essential Skills**

**To which area should this course be added?**

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Creative & Fine Arts - Communication, Critical Thinking, Personal & Social Responsibility

## B. Learning Outcomes

---

**List all common course student learning outcomes for the course.**

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

### Student Learning Outcomes

1. Develop a vocabulary of musical terms, and be able to describe music using those terms.
2. Demonstrate knowledge of composers, their music and their relationship to historical periods.
3. Recognize how music played and plays a political, social, and cultural function.
4. Identify well-known pieces and the historical and social context in which they were composed.
5. Demonstrate basic understanding of music notation and musical communication.

---

### Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

### COMMON STUDENT LEARNING OUTCOMES

Upon completion of this course, you should be able to:

1. Identify by listening, to a wide variety of musical styles as studied in class.
2. Compare and contrast music from different musical eras using basic music terms.
3. Discuss varying musical genres using music vocabulary.
4. Use a variety of media to explore music.
5. Experience a wider variety of music, composers, artists, and performance media.
6. Develop active listening skills by using the various listening guides from the textbook and homework assignments/listening projects.
7. Recall the names of major composers from each musical period of Western art music, offer specific work examples, and develop a general understanding of the evolutionary nature of music as it moves through the various predominant periods surveyed in the textbook.

## C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

**Communication. Genre and Medium Awareness, Application and Versatility; Strategies for Understanding and Evaluating Messages; and Evaluation and Production of Arguments.**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of communication.*

Throughout this course, students interact with course material and communicate their knowledge using theories of music while focusing on the concepts associated with musical perspectives, including, but not limited to music theory, history, ensembles, forms and outlines, technology, and the evolution of music from the middle-ages to present day.

Learning takes place through a variety of genres and mediums, including in class and online individual, originally written discussion forums responding to core questions keyed to textbook chapters, listening to and evaluating musical compositions, and viewing and assessing video presentations of dance suites, choirs singing, and orchestras performing.

Specifically, students integrate several musical concepts learned into a coherent response to given writing prompts and practice understanding and evaluating messages by providing thorough, constructive feedback to other student's responses.

Students also complete brief weekly quizzes and activities to demonstrate their understanding of musical theories, concepts, terminology, and repertoire.

The small and large group class activities and online class discussions facilitate conversations among students whereby they reflect upon their viewpoints of what has been absorbed through the class as well as their prior experience with music and evaluate different perspectives presented by their peers.

Furthermore, during these class sessions, students collaborate in small groups to strategize a position for a debate.

Students craft a written document supporting their position utilizing facts and informed opinions to

demonstrate understanding of musical concepts and theories.

One such debate topic occurs when students view online and live musical event of their choosing and compare and contrast their personal aesthetic experience including their reaction to the separate experiences.

In the class, I encourage the students to show and communicate their aesthetic response and feelings to the music that they hear. I think it's important to tap into how music moves them and what motivates their reactions, regardless of prior musical knowledge.

After thorough and thoughtful examination of the facts surrounding the debate topic, students must orally argue their position before the class.

Students also demonstrate strategies for understanding and evaluating messages by identifying real world examples of music theories and fundamentals and subsequently demonstrate a clear understanding of those theories and concepts in a written final.

For example, they will compare and contrast differences in music eras and specific composers such as what is different between Mozart and Beethoven?

What stylistic characteristics can you hear and identify with their compositional style and music?

I also have them explain in their own words, what the difference between "classical art music" and "popular music" are? I am looking for their experience and perspective regardless of "classical training" or exposure.

This gets them thinking about music they regularly listen to, versus "art music" which they may not be as familiar with. Why is one more effective? What is the main goal or usage of each genre and how does what you hear effect you as a listener or audience member?

Students use their knowledge of music concepts and terminology to create an understanding of what they are hearing.

Through this final project students illustrate their ability to appreciate music they may have never heard before via an unbiased assessment of musical events with a broader vision.

---

***Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.***

*In this box, provide a narrative that explains how the proposed course addresses all of the components of critical thinking.*

Students think analytically, evaluate objectively, understand the links between ideas, consider



connections, draw conclusions and offer musical concepts and theories to interpret music in our world while developing an appreciation for music.

Students rigorously question ideas and assumptions they may have had previously about genres of music rather than relying on limited experiences.

Students brainstorm then in oral and written formats present their conclusions regarding implications of musical changes from the Middle Ages to present day in our American society and on a national and global level.

Students must draw conclusions about the evolution of music history by applying progressively acquired knowledge in a holistic manner throughout the semester during small and large group discussions, on written assignments that prompt their critical thinking; Through the use of the signature assignment which is a typed concert review in which they must attend a live music performance and write up their experiences and content to what they observed.

Students are also asked to acquire and evaluate evidence by studying and preparing material and content for exams and assignments which they must research, listen to recordings, and draw conclusion based on their research and acquired content knowledge.

For the midterm and final assessments, students carefully examine aspects of critical composers from each musical period and compare composers and compositions by using formal evidence and reaching reasoning/conclusions based on the recordings that they hear. Through this setting, they are gathering information (evidence acquisition and evaluation), and drawing conclusions as to why the music sounds as it does?

We ask them, what are the characteristics of a composer or specific tendencies of a specific era or classical genre? Such as what is the difference between a Classical era orchestra and a Later Romantic era orchestra? What musical evolution has taken place? They explain their observations and present their observations and conclusions in a comprehensive written format.

One of my favorite assignments to have them listen to a Chopin Nocturne three different times during a 24-hour period at different specified times during their day. Once when they wake up in the morning, once in the afternoon, and once before bed. They write about their experiences and differences in what they hear in the composition, and how they aesthetically are affected by the same piece at different times based on their mood, state of business, or other external factors that effect our ability to concentrate and that affect our mood. Which time frame was calmer? Which was more energetic? Recognizing these factors helps to have them tap into their emotional responses based on their experience and perceptions.

Through these assignments and tests, students are encouraged to maintain an unbiased position in order to better understand the musical perspective.

Students evaluate the evidence they have collected for credibility and relevance and come to conclusions based on sound evidence, well-reasoned evaluation and the use of problem-solving skills.

Utilizing various readings, lectures, discussions, and sociological observations, student critical thinking skills are assessed as they are able to state, define and describe components of musical perspectives. Students further reveal their ability to think critically by comparing information gleaned through course materials and information garnered through musical observations to demonstrate that they are well-informed about musical concepts.

Students will use musical concepts to clearly exhibit their ability to apply informed and reasoned thinking to the discipline of music.

**Personal & Social Responsibility. *Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global***

*In this box, provide a narrative that explains how the proposed course addresses 2 of the components of personal & social responsibility.*

Collaboration is important to this course to facilitate student learning through interaction and reflecting on different perspectives. This occurs through group discussions and activities.

These discussions and activities help develop skills of teamwork and group cohesion and comradery, cultivate musical imagination, and promote understanding of the major musical perspectives.

Additionally, these activities stimulate conversations whereby students share their musical views and values.

To foster an understanding of civic discourse, students individually attend a live music performance and write up their experiences as a concert review. The concert review is a written reflection of their experience and conceptions of what they hear and witness in their live music experience.

Students then share their experiences. By portraying a “music critic” they must describe their experiences and the music they hear to a reader who was not at the performance and must rely on the writer’s perspective to provide an accurate description as to what the pieces sound like, how the performers looked and acted and their personal enjoyment or lack thereof.

One aspect of this assignment is that the students get to pick the live music performance of their choice. I don’t mandate them to attend a specific orchestra, band, choir, or world music performance.

It’s up to the student to seek out the live concert and commit to going and putting in the time to absorb the atmosphere.

By going through this experience, they reflect on social, cultural and musical perspectives in their own

community.

Through their experiences, students learn local about local artists and musical acts that work to impart civic knowledge.

It's fun to see their written responses to a classical or symphonic concert if they have never attended one. They are usually quite pleased with their experience and promise to attend another performance in that genre in the future! Through this activity and assignment, we are building potential concert goers and sustaining the arts in our local communities!

Another fun reaction to their concert review is when they attend an African Drumming or world music concert. Since culture and its sub-components are a major part of musical context and content, students react to "non-mainstream" music, then provide conclusions regarding what the music means in their cultures, and how the culture is affected socially and musically. The music tells a story about their culture and heritage and speaks to a listener in a non-verbal way.

These issues instill intercultural reasoning and competence.

Students are encouraged to provide different perspectives based on their own life experiences and influences from their family, culture and societal views.

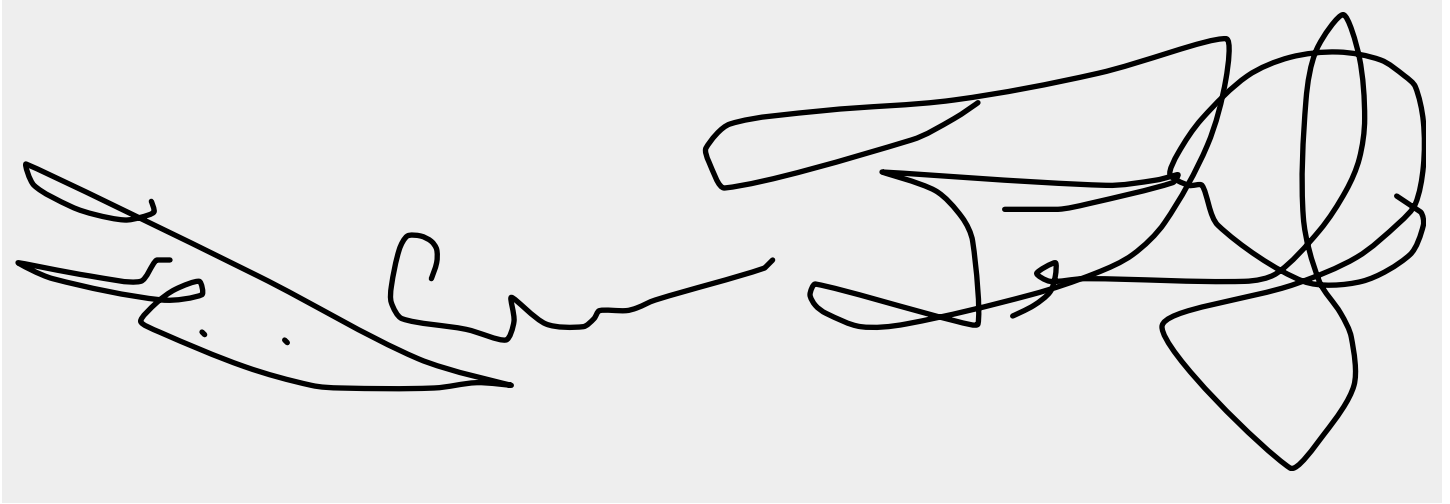
---

#### **D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

[https://www.sanjuancollege.edu/media/sanjuancollegeedu/documents/learning/General-Education-Assessment-Plan-final-Fall-2019-\(002\).pdf](https://www.sanjuancollege.edu/media/sanjuancollegeedu/documents/learning/General-Education-Assessment-Plan-final-Fall-2019-(002).pdf)

This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).

A large, stylized handwritten signature in black ink on a light gray background. The signature is composed of several loops and flourishes, with a prominent 'C' at the beginning and a large, complex loop at the end.

**Date**

Mar 29 2021

## Upload Assessment

**Completed** - Mar 29 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

### [Concert Review&Critique](#)

**Filename:** Concert\_ReviewCritique.pdf **Size:** 90.5 kB

## Upload Rubric

**Completed** - Mar 29 2021

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

### [Concert Review Rubric](#)

**Filename:** Concert\_Review\_Rubric.pdf **Size:** 126.4 kB

# Application: 0000001475

Robert Moore - Robert.Moore@rm01.enmuros.cc.nm.us  
NM General Education Curriculum

## Summary

**ID:** 0000001475

**Status:** Under Review

**Last submitted:** Mar 24 2021 04:42 PM (MDT)

## Application Form

**Completed** - Mar 24 2021

## Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course

# Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

## Contact Information

Name	Robert Moore
Title	Assistant VP
Phone	5756247001
Email	<a href="mailto:robert.moore@roswell.enmu.edu">robert.moore@roswell.enmu.edu</a>

## Submitting Institution

Name of HEI	ENMU-Roswell
Submitting Department	Creative & Fine Arts

## Chief Academic Officer

Name	Annemarie Oldfield
Email	<a href="mailto:annemarie.oldfield@roswell.enmu.edu">annemarie.oldfield@roswell.enmu.edu</a>

## Registrar

Name	Linda Neel
Email	<a href="mailto:linda.neel@roswell.enmu.edu">linda.neel@roswell.enmu.edu</a>

**Is this application for your entire system (ENMU, NMSU, & UNM)?**

No

**Institutional Course Information**

Prefix	MUSC
Number	1130
Title	Music Appreciation: Western Music
Number of credits	3

**Was this course previously part of the New Mexico General Education curriculum?**

Yes

**Co-requisite Course**

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)

**New Mexico Common Course Information**

Prefix	MUSC
Number	1130
Name	Music Appreciation: Western Music

**A. Content Area and Essential Skills**

## To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Creative & Fine Arts - Communication, Critical Thinking, Personal & Social Responsibility

## B. Learning Outcomes

### List all common course student learning outcomes for the course.

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

1. Develop a vocabulary of musical terms, and be able to describe music using those terms.
2. Demonstrate knowledge of composers, their music, and their relationship to historical periods.
3. Recognize how music played and plays a political, social, and cultural function.
4. Identify well-known pieces and the historical and social context in which they were composed.
5. Demonstrate a basic understanding of music notation and musical communication.

### Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

NA



## C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

**Communication. Genre and Medium Awareness, Application and Versatility; Strategies for Understanding and Evaluating Messages; and Evaluation and Production of Arguments.**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of communication.*

[\*Genre and Medium Awareness:] The act of observing, interacting, and evaluating music is an exercise in communication: reading the music / musician, examining the “messages” or meaning of the song, and sharing those messages to a larger (or personal) audience make up the bulk of assignments and activities. Students learn musical terms and how to describe music--dynamics, tempo, and expression for example. When these aspects are paired with pitch and rhythm, the students can interpret a composer's intention and replicate the music. Students study and are tested on vocabulary. These terms apply to all musical works, and all creators and performers of music use them to convey their expressive intent. Students also are introduced to the major genres and movements in Music through faculty lecture, performances, and a series of readings that include authoritative critical assessments. As students learn achieve versatility within the genres, one assignment asks students to imagine a famous song played at a different tempo or in a different genre—a choral piece done as square dance, or rap performed as elevator muzak. Individual journals, quizzes, and discussion all allow students to reflect on, experience, and appreciate the different mediums and genres of music and the songs that arise from these mediums. We trace the development of diverse musical styles, for example. Diversity in art is the vast array of compositions available and the process musicians find and reveal in their style. By examining the musicians, the students understand the “voice” of the musician and the song precisely.

[Strategies for Understanding and Evaluating Messages:] Analysis of music requires extreme flexibility of

imagination and the ability to connect observations to experience; students have multiple opportunities to search for “meaning” in discussions, reflection essays, and final exams. Exercises in class also suggest a pattern for how to look for messages. Students write their own response to a song (Mozart’s Requiem) and then read a small historical piece about dirges, a review from a respected critic about the Requiem, and a small essay on Mozart. Finally, they re-write their analysis now that they have other tools to evaluate the classical piece, learning that their observation is just one way to evaluate and understand. As we mature our ability to talk about “style,” we simultaneously mature our ability to compare and contrast ideas, techniques, mediums, and ways of expressing from across genres and musicians. We emphasize the process of “broadening and deepening” our understanding in numerous exercises from artifact examination discussions in class to our final essays dedicated to a student’s selected musician or movement.

[\*Evaluation and Production of Arguments:] Discussions compel students to respond to musical compositions or recorded songs or other performances, primary texts, other students' positions, as well as professional critiques/reviews; the discussions and written responses model techniques of textual and cultural evaluation. For many of the statements students make (in discussions, for example), we emphasize currency, relevance, authority, accuracy, and purpose. Students create their credible arguments; many assignments make conscious the evaluation techniques necessary to assure thoughtful and hearty presentation. Students arrive at defensible, relevant, and interesting conclusions based on sound and creative premises in their essays, presentations, and short assignments. They are guided to ask questions, explore, surmise, posit opinions, and support their ideas through different deductive reasoning and Socratic teaching strategies. Repeated exposure to primary and secondary sources (compositions, recordings, and critiques of artwork) allows students to engage examples of excellent and poor reasoning, logical fallacies, misguided conclusions, affirming organization, and general patterns of argument valuable for college-level academic discourse.

---

***Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.***

*In this box, provide a narrative that explains how the proposed course addresses **all** of the components of critical thinking.*

[\*Problem Setting:] During the semester, students respond to multiple types and modes of Western music from early traditions to contemporary styles; they share their reactions and experiences through

reflective documents, response essays, quizzes, exams, and an analytical research paper; they participate in discussions nearly every class where they must determine and tackle a particular problem or issue a musical piece or artist presents; they offer presentations, work in small groups to explore and present discoveries, and share their reactions informally with classmates.

[Evidence Acquisition:] Students access and consider the evidence available through their assigned course texts, the library's general collection, and the University's numerous databases (e.g., EBSCO, Academic Search Complete, ProQuest, JSTOR, etc.), and faculty-provided material to support their observations, analyses, and arguments forwarded in-class discussion and on assignments. Several assignments, like their exams, require them to share evidence they have accumulated; other assignments, like the reflective responses, are designed to enhance students' research and discovery skills and reward effective use of outside sources. The first essential skill the course works through is developing a vocabulary of musical terms and being able to describe music using those terms and the specialized area that is Western Music. It is crucial to understand and put music terminology into practice in terms of dynamics, tempo, and expression. When these aspects are paired together with pitch and rhythm, they can adequately interpret the music composer's intention and replicate it. We use these words frequently to help the student retain them and reinforce their practice when discussing or writing about musical pieces assigned in class.

[\*Evidence Evaluation:] Discussions compel students to respond to digitally reproduced music, primary texts, other students' positions, as well as professional critiques/reviews; the discussions and written responses model techniques of textual and cultural evaluation. For many of the statements students make (in discussions, for example), we emphasize currency, relevance, authority, accuracy, and purpose. Students create their credible arguments; many assignments make conscious the evaluation techniques necessary to assure thoughtful and hearty presentation (focused/evaluated annotation and response to individual works is an example).

[\*Reasoning/Conclusion(s):] Students arrive at defensible, relevant, and interesting conclusions based on sound and creative premises in their essays, presentations, and short assignments. They are guided to ask questions, explore, surmise, posit opinions, and support their opinions through different deductive reasoning and Socratic teaching strategies. Western music has a multimedia index of vocabulary specific to the interdisciplinary field. It includes numerous terms, ranging from descriptions of sounds and instruments to techniques to relevant cultural and historical phenomena. The course focuses on specific historical changes within the genera that define the vocabulary used throughout the course. To truly appreciate Western music, a student needs to identify individual components that make a song and at the same time hear how all of the parts fit together. Utilizing the appropriate vocabulary aids the student

in developing an appreciation and, as such, the ability to analyze and reach conclusions about their thoughts and observations. Repeated exposure to primary and secondary sources (songs and critiques of songs, historical documents) allows students to engage examples of good and poor reasoning, logical fallacies, misguided conclusions, affirming organization, and general argument valuable patterns for college-level academic discourse.

**Personal & Social Responsibility. *Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global***

*In this box, provide a narrative that explains how the proposed course addresses 2 of the components of personal & social responsibility.*

[\*Intercultural Reasoning and Intercultural Competence:] During the semesters, through the observation and encounter of musical works, readings, research, and discussions, students immerse themselves in a variety of socio-cultural issues represented in the Western Music across time periods, cultures, regions, and styles; examine how past socio-cultural, geographic, historical influences informs current artists; and learn to appreciate and approach differing artistic styles, attitudes, and artifacts across generations. Student progress is measured in part on their ability to recognize differing modes, practices, and styles of Western Music and reflect their understanding in essays, projects, and presentations; many of the assignments ask them to engage, react to, and otherwise consider issues most relevant to the social role of Western Music, by addressing these issues within discussions, essays, and exams.

[\*Civic Knowledge and Engagement—Local and Global:] Music played and plays a political, social, and cultural function. Combining the correct lyrics, rhythm, and instruments can build a group identity, stir strong emotions, engage audiences and amass people to take action. Music is an instrument of social change—a way to communicate and enact, an excellent platform for discussions on social issues. As agents of change, critical listening and discussion allows students to understand what messages the music holds. What is the music telling us, what is the artist telling us, and what is the arrangement telling us? For example, during the '60s, famous white singers such as Bob Dylan and Joan Baez lent their names and musical talents to the American Civil Rights Movement. Freedom songs often adapted from the black church's music played an essential role in bolstering courage, inspiring participation, and fostering a sense of community during this time period, only to resurface in 2020 with the Black Lives

Matter movement. Students are taught to not only hear the music but listen to the music. Across the semester, students tackle contemporary and past Western Music pieces/artists and investigate them; many of the works are public or shared on a local/global level, and most of the music was "performed" in a civic setting; students learn about how and where the music is conserved, produced, and consumed and, consequently, gain knowledge about the civic nature of Western Music. Students also explore the local and global contexts surrounding the creation, distribution, and context of Western Music; one project, for example, asks students to select two pieces of music performed in two different geographic areas and compare/contrast them. Students strive to contextualize academic discourses with global movements, structures, and attitudes. Nearly every musical piece embraces the conversation of civic responsibility, either as a critique, a model, or an investigation of communities in action. The songs provide the leaping-off point for conversations about how the individual conflicts with, correspondent to, or estranged from society; the students' essays allow them to reflect and sharpen their understanding.

---

**D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

[https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan\\_ENMURoswell.pdf](https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan_ENMURoswell.pdf)

---

**This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).**

Handwritten signature of the Chief Academic Officer (CAO) in black ink, consisting of stylized initials 'RM' followed by a slash and 'AMJ'.

---

**Date**

Mar 24 2021

## Upload Assessment

**Completed** - Mar 24 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

### [MUSC 1130 Assignment](#)

**Filename:** MUSC\_1130\_Assignment.pdf **Size:** 390.5 kB

## Upload Rubric

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

## Application: 0000001509

James Scott - james.scott@nmt.edu  
NM General Education Curriculum

### Summary

**ID:** 0000001509

**Status:** Under Review

**Last submitted:** Mar 29 2021 05:25 PM (MDT)

## Application Form

**Completed** - Mar 29 2021

## Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy

2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

### Contact Information

Name	Agnieszka (Aga) Gabor da Silva
Title	Instructor
Phone	(No response)
Email	<a href="mailto:aga.gabor@nmt.edu">aga.gabor@nmt.edu</a>

### Submitting Institution

Name of HEI	New Mexico Institute of Mining and Technology
Submitting Department	Department of Communication, Liberal Arts and Social Sciences

### Chief Academic Officer

Name	Dr. Steve Simpson
Email	<a href="mailto:steve.simpson@nmt.edu">steve.simpson@nmt.edu</a>

### Registrar

Name	James Scott
Email	<a href="mailto:james.scott@nmt.edu">james.scott@nmt.edu</a>

### Is this application for your entire system (ENMU, NMSU, & UNM)?

(No response)

### Institutional Course Information

Prefix	COMM
Number	242
Title	Public Speaking
Number of credits	3



Was this course previously part of the New Mexico General Education curriculum?

Yes

Co-requisite Course

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)

New Mexico Common Course Information

Prefix	COMM
Number	1130
Name	Public Speaking

A. Content Area and Essential Skills

To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Humanities - Information & Digital Literacy, Critical Thinking, Personal & Social Responsibility

B. Learning Outcomes

**List all common course student learning outcomes for the course.**

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

Student Learning Outcomes

1. Demonstrate effective speech preparation.
2. Demonstrate effective speech delivery through use of language, nonverbal elements and the creation of presentation aids.
3. Analyze a potential audience and tailor a speech to that audience.
4. Evaluate presentations according to specific criteria.
5. Explain common propaganda techniques and logical fallacies, and identify them in the speeches of others.
6. Recognize diversity and ethical considerations in public speaking.

---

**Institution-specific Student Learning Outcomes**

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

None

## C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

### **Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.**

*In this box, provide a narrative that explains how the proposed course addresses **all** of the components of critical thinking.*

In Public Speaking students are asked to identify, gather, and evaluate information or data to demonstrate their ability to form arguments and present reliable information to their peers. Students are asked to write a working outline, in which they include all the information they intend to include in their speech, followed by a list of bibliographical sources they used to develop their speech. First, students need to use critical skills to select topics based on personal knowledge, research, and applicability to a given audience. They also need to make sure that they are meeting the rhetorical purpose of their presentations and can distinguish between different types of testimonies and differentiate fact from opinion. Second, the content of the speech requires a critical analysis of the demographics and values of the audience. This analysis allows them to present information with an appropriate scope and depth of evidence for the given topic. The persuasive speech demands sound arguments requiring students to use the three rhetorical proofs of ethos, logos, and pathos. Students also learn how to apply Maslow's hierarchy of needs as another method of persuasion. Students are also given detailed instruction of logos; thus induction, deduction, argument analysis (claim–evidence–warrant), and analogy. Students are also asked to identify common logical fallacies and formulate persuasive arguments supported by sound reasoning and credible evidence. In both the informative and the persuasive speech students learn how to present a topic in the most effective way possible within the suggested time range.

**Personal & Social Responsibility. Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global**

*In this box, provide a narrative that explains how the proposed course addresses 2 of the components of personal & social responsibility.*

Students in the course are asked to deliver a persuasive speech of policy on a topic of their choice, including controversial issues such as climate change, gun control or abortion. The speech follows the problem-cause-solution skeleton, i.e., students are supposed to establish a need for their policy, discuss the reasons why some may oppose their policy, and present ways to put their policy in practice. Prior to developing the speech, students are asked to complete an audience analysis survey whose aim is to help them gather and analyze information about audience members' attributes and motivations, so that they can prepare their speech in ways that will be meaningful to the audience. Students are also required to do research for the speech and are encouraged to use the Opposing Viewpoints in Context database and the Pros/Cons features in the Credo Reference resource, so that they can create arguments backed by sound evidence and address the opposing views. When discussing persuasive speaking, students are introduced to the rules of ethical speaking, i.e., speaking that acts against: the spread of false information, defamatory and hateful speech, abusive language, insensitivity to other cultures, and plagiarism. A discussion on logical fallacies is crucial to help students create arguments that promote ethical public speaking. In a peer evaluation, which accompanies each speech assignment, each student is asked to evaluate their colleagues' speeches following the rules of compassionate and constructive criticism, whose primary goal is to help each student become a better public speaker by giving feedback based on respect and goodwill.

**Information & Digital Literacy. Authority and Value of Information; Digital Literacy; Information Structure; and Research as Inquiry**

*In this box, provide a narrative that explains how the proposed course addresses **3** of the components of digital literacy.*

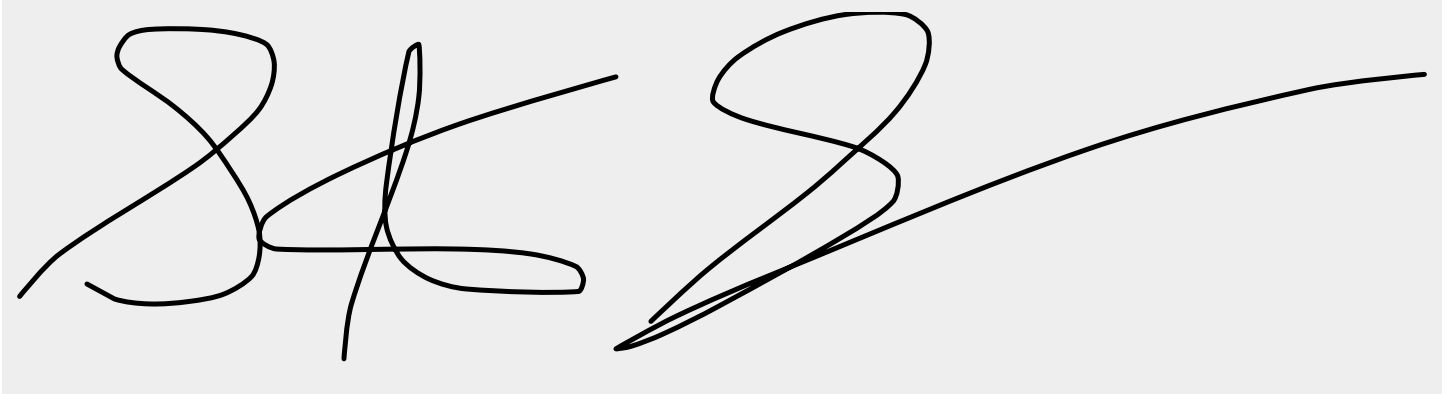
Students in this course are asked to select, use, produce, organize and share information. Specifically, students are required to present a series of presentations over the course of the semester in which they gather and present information to their audience. These presentations range from an informative speech in which they are asked to generate new knowledge and information for their classmates; to a persuasive speech in which they formulate an argument based on analyzing and evaluating research that they will use with the goal of creating change in their audience. These speeches and other assignments require that students understand appropriate citation styles, demonstrate an ability to gather information from an appropriate authority, and organize the ideas in such a way as to meet the rhetorical purpose of given assignments. Students are also assessed on how effectively they use technology in their speeches and how to avoid being used by technology thus building their confidence as public speakers able to handle technology in any public speaking event.

**D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

<https://www.nmt.edu/academicaffairs/assessment/gened.php>

This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).



**Date**

Mar 29 2021

## Upload Assessment

**Completed** - Mar 29 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

[Assessment\\_Informative\\_Speech\\_Peer\\_Evaluation\\_Form - Google Forms](#)

**Filename:** Assessment\_Informative\_Speech\_Peer\_KnBiLkp.pdf **Size:** 94.8 kB

## Upload Rubric

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

# Application: 0000001485

Robert Moore - Robert.Moore@rm01.enmuros.cc.nm.us  
NM General Education Curriculum

### Summary

**ID:** 0000001485

**Status:** Under Review

**Last submitted:** Mar 25 2021 12:02 PM (MDT)

# Application Form

Completed - Mar 25 2021

## Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

### Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

### Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

### Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.

- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

### Contact Information

Name	Robert Moore
Title	Assistant VP
Phone	5756247001
Email	<a href="mailto:robert.moore@roswell.enmu.edu">robert.moore@roswell.enmu.edu</a>

### Submitting Institution

Name of HEI	ENMU-Roswell
Submitting Department	Social and Behavioral Science

### Chief Academic Officer

Name	Annemarie Oldfield
Email	<a href="mailto:annemarie.oldfield@roswell.enmu.edu">annemarie.oldfield@roswell.enmu.edu</a>

### Registrar

Name	Linda Neel
Email	<a href="mailto:linda.neel@roswell.enmu.edu">linda.neel@roswell.enmu.edu</a>

### Is this application for your entire system (ENMU, NMSU, & UNM)?

No



## Institutional Course Information

Prefix	POLS
Number	1120
Title	American National Government
Number of credits	3

## Was this course previously part of the New Mexico General Education curriculum?

Yes

## Co-requisite Course

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)

## New Mexico Common Course Information

Prefix	POLS
Number	1120
Name	American National Government

## A. Content Area and Essential Skills

## To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Social & Behavioral Sciences - Communication, Critical Thinking, Personal & Social Responsibility

## B. Learning Outcomes

### List all common course student learning outcomes for the course.

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

1. Explain the historical and political foundations of the government of the United States;
2. Explain the precursors to, and the development and adoption of the United States Constitution;
3. Explain the United States federal system, the basics of federalism, and the changing relationship of state and federal power;
4. Describe the power, structure and operation of the main institutions of government, namely the legislative, executive, judicial, and the federal bureaucracy;
5. Explain the development and role of political parties and interest groups;
6. Identify the constitutional basis of civil rights and civil liberties and their changing interpretation; and
7. Describe the role of demographics, public opinion and the media in American politics.

### Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

NA

## C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

**Communication. Genre and Medium Awareness, Application and Versatility; Strategies for Understanding and Evaluating Messages; and Evaluation and Production of Arguments.**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of communication.*

Genre and Medium Awareness, Application and Versatility:

American government is a complicated and difficult subject. Generally, the students will understand how the government process works within the three branches and how the information navigates through the government system. Students will learn to communicate personal and political positions, ideas and opinions, in an open forum and small groups to challenge the political process and its relationship with the United States Constitution. Peer interaction will help the students to develop communication skills by researching difficult political topics, understand each other's differences and backgrounds, and offer some insight into how their peers see the world from different viewpoints. These viewpoints will help them to develop vital skills to craft arguments, practice communication skills, and carry a civil discourse on contemporary political issues.

Several team debates will be conducted in class on several different topics and its application to the United States Constitution and the government process. The instructor will provide guidelines and rules while debating, which allows the student to explore their professional and personal opinions within the context of American government. The students will work in small groups to understand what acceptable credible sources are and how to apply them in the larger context (debates, civic discourse, essays and current events), to back up their claims. The American government system is very complicated and offers many resources in textbooks, government publications and the Eastern New Mexico University-Roswell and Eastern New Mexico University Golden Libraries.

#### Strategies for Understanding and Evaluation Messages:

Students practice strategies for understanding and evaluation messages by reading the textbook and supplemental materials, critically viewing documentaries, interact discussion and its application to the course content, including current events and Supreme Court of the United States rulings. Students practice critical thinking skills by applying credible sources, research, personal and political views, and evidence-based arguments about current and past government issues.

#### Evaluation and Production of Arguments:

Evaluation and production arguments are demonstrated by applying their understanding of American government concepts in group discussion, small group interaction, debate, and persona land political views. They are evaluated by their participation, personal and political input, their understanding of government branches and processes in relation to the United States Constitution.

### ***Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.***

*In this box, provide a narrative that explains how the proposed course addresses **all** of the components of critical thinking.*

Critical thinking skills component will challenge the students to compare and contrast political, personal, economic and social influence that are impacting on contemporary American government discourse. This will allow the students to become familiar with the government processes, branches and its application to the United States Constitution. Additionally, students will explore and develop their personal and political perspectives and deliver in a formal platform (presentations and debates) with credible sources to conclude reasonable outcomes.

#### Problem Setting:

Students will practice critical thinking skills by engaging in class discussions, lecture, small group works, historical perspectives, essays, local presenters, documentaries and other projects. Students will determine a contemporary political issue and work in small groups to share information and opinions, and its application to the government discourse; they offer small group presentations and present findings and while utilizing credible sources to back up their conclusions.

#### Evidence Acquisition:

Students access evidence through their assigned course textbooks, government publications, (e.g., EBSCO, Academic Search Complete, ProQuest, JSTOR, etc.) the Eastern New Mexico University-Roswell and Eastern New Mexico University Golden Libraries, and supplemental faculty-provided material. Students will share their research, views, and conclusions through in-class discussion and class assignments. The students must demonstrate how their research applies within the content of American Government Discourse and the United States Constitution.

#### Evidence Evaluation:

Discussions and small groups compel students to evaluate their work and challenge each other in class discussions, presentations, debate, and writing assignments. Due to the sensitive nature of the political issues and government discourse, the students must demonstrate how their work applies within the American government discourse, to including credible research sources.

#### Reasoning/Conclusion:

The students will explore and conclude many different perspectives based on discussions, presentations, debate and in-class assignments. They will determine that interpretations will differ based on personal and political views and backgrounds, while remaining within the government discourse and the United States Constitution. Students will offer solutions and guided toward seeking credible research understand the government process and its many applications.

**Personal & Social Responsibility. *Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global***

*In this box, provide a narrative that explains how the proposed course addresses **2** of the components of personal & social responsibility.*

**Ethical Reasoning:**

Ethical guidelines are provided within the American Government processes and within the United States Constitution. Ethics are fostered by exploring different perspectives, interpretations, political and personal views, community and national social challenges, power and authority issues, financial impact, geographical location and how individuals define themselves.

**Civic Discourse:**

The American government complicities can be approached through textbook readings and in-class discussions with classmates and the instructor. Our country is facing strong social issues are compounded by the national health crisis, economic crisis and the American government's response. With interaction in small group work, class discussion, and resources, students will understand different cultural differences and political perspectives, and their impact. Along with local issues, students are required to seek credible resources and research data, and offer solutions for the most serious contemporary issues in our society within the American Government discourse and the United States Constitution.

**D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

[https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan\\_ENMURoswell.pdf](https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan_ENMURoswell.pdf)

This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).

A handwritten signature in black ink, appearing to read "Rm / AMv", is displayed on a light gray background.

**Date**

Mar 25 2021

## Upload Assessment

**Completed** - Mar 25 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

### [Assignment POLS 1120](#)

**Filename:** Assignment\_POLS\_1120.pdf **Size:** 8.4 kB

## Upload Rubric

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

# Application: 0000001482

Robert Moore - Robert.Moore@rm01.enmuros.cc.nm.us  
NM General Education Curriculum

### Summary

**ID:** 0000001482

**Status:** Under Review

**Last submitted:** Mar 25 2021 11:23 AM (MDT)

## Application Form

# Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.



- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

### Contact Information

Name	Robert Moore
Title	Assistant VP
Phone	5756247001
Email	<a href="mailto:robert.moore@roswell.enmu.edu">robert.moore@roswell.enmu.edu</a>

### Submitting Institution

Name of HEI	ENMU-Roswell
Submitting Department	Humanities

### Chief Academic Officer

Name	Annemarie Oldfield
Email	<a href="mailto:annemarie.oldfield@roswell.enmu.edu">annemarie.oldfield@roswell.enmu.edu</a>

### Registrar

Name	Linda Neel
Email	<a href="mailto:linda.neel@roswell.enmu.edu">linda.neel@roswell.enmu.edu</a>

### Is this application for your entire system (ENMU, NMSU, & UNM)?

No

## Institutional Course Information

Prefix	PHIL
Number	2110
Title	Introduction to Ethics
Number of credits	3

## Was this course previously part of the New Mexico General Education curriculum?

Yes

## Co-requisite Course

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)

## New Mexico Common Course Information

Prefix	PHIL
Number	2110
Name	Introduction to Ethics

## A. Content Area and Essential Skills

## To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Humanities - Information & Digital Literacy, Critical Thinking, Personal & Social Responsibility

## B. Learning Outcomes

### List all common course student learning outcomes for the course.

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

1. Differential between various ethical theories, which may include virtue ethics, deontology, and consequentialism.
2. Critically evaluate various ethical theories and positions.

### Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

NA

## C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

### **Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.**

*In this box, provide a narrative that explains how the proposed course addresses **all** of the components of critical thinking.*

[\*Problem Setting:] During the semester, students submit multiple types of writing, including reflective documents, response essays, and analytical research papers; they participate in discussions nearly each class where they must determine and tackle a particular problem or issue the reading presents; they offer presentations, work in small groups to explore and present findings, and share discoveries informally with classmates; and they work both individually and in small groups on creative projects (like parsing real world conflicts such as world hunger or just war within a particular paradigm such as Nietzsche or Kierkegaard's ideologies). Students also practice formal annotation, which requires them to reflect specifically and thoughtfully on each assigned reading.

[Evidence Acquisition:] Students access and consider evidence available through their assigned course texts, the library's general collection, and the University's numerous databases (e.g., EBSCO, Academic Search Complete, ProQuest, JSTOR, etc.), and faculty-provided material to support their observations, analyses, and arguments forwarded in class discussion and on assignments. Several assignments, like their reflection essays, are designed to enhance students' research and discovery skills and reward effective use of outside sources.

[\*Evidence Evaluation:] Discussions compel students to respond to primary texts, other students' positions, as well as professional critiques / reviews; the discussions and written responses model techniques of textual and cultural evaluation. For many of the statements students make (in discussions,

for example), we emphasize currency, relevance, authority, accuracy, and purpose. Students are working on creating their own credible arguments; many assignments make conscious the techniques of evaluation necessary to assure thoughtful and hearty presentation (focused / evaluated annotation of texts is an example).

[\*Reasoning/Conclusion(s):] Students arrive at defensible, relevant, and interesting conclusions based on sound and creative premises in their essays, presentations, short assignments, projects, and journaling / annotation. Students arrive at conclusions through three major paradigms: ethics, social contract theory, and natural law theories; “Daily Questions” focus a student’s lens as they are asked to consider the origin and nature of evil, just law theories, stoic and anti-stoic approaches to life and duty, and real-world applications of those theories; they struggle with real world examples of ethical dilemmas arising from, for example, conflicts of interest, workplace and whistleblower ethics, cross-cultural tolerance, altruism in health care, discussions of personal autonomy and personal responsibility in the context of sexual relations and drug use, racial and cultural identities and conflicts, and environmental ethics. They are guided to ask questions, posit answers, and support their answers through different strategies of deductive reasoning and Socratic teaching. Repeated exposure to primary and secondary sources allow students to engage examples of good and poor reasoning, logical fallacies, misguided conclusions, affirming organization, and general patterns of argument valuable for college-level academic discourse.

**Personal & Social Responsibility. *Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global***

*In this box, provide a narrative that explains how the proposed course addresses 2 of the components of personal & social responsibility.*

[\*Intercultural Reasoning and Intercultural Competence:] During the semesters, through readings, research, and discussions, students encounter variety of socio-cultural issues in the literature across time periods and contemporary culture; examine how past socio-cultural ethical philosophies have informed the present by comparing and contrasting contemporary dilemmas with historical concerns; and learn to appreciate and approach differing ethical perspectives across generations. Student progress is measured in part on their ability to recognize differing philosophical schools, philosophers, and practical manifestations of ethical thinking and reflect their understanding in essays, projects, and presentations;

many of the assignments ask them to engage, react to, and otherwise consider issues most relevant to ethical and social responsibility—such as truth vs loyalty, short-term vs long-term, individual vs community, and justice vs mercy—including through their annotation / journaling, reflective essays, and projects. The course emphasizes the interpersonal nature of ethics and morality; attempts are made to provide historical context through readings. The class equips (through assignments and discussion) with the tools to make ethical decisions that will make them good people, good employees, and good citizens. They are asked, for example, to consider unique workplace situations that pose ethical dilemmas and struggle to solve (or at least parse) them.

[\*Civic Knowledge and Engagement—Local and Global:] Across the semester, students tackle contemporary and past socio-cultural and political issues and investigate them through ethical paradigms; these paradigms are anchored in practical, real-world examples and creative problem solving. We might consider, for example, how ancient thinking about murder informs contemporary (local, national) attitudes toward the death penalty. Students explore the local and global contexts surrounding the creation, distribution, and context of their assigned primary sources—drawing connections across diverse points of interest from gender politics to economic injustice, gun regulation to national culture wars (one project, for example, asks students to build a defense and critique of incarceration). Students strive to contextualize academic discourses with global movements, structures, and attitudes. Nearly every primary text embraces the conversation of civic responsibility either as a critique, a model, or an investigation of communities in action; the texts provide the leaping-off point for conversations about how the individual is in conflict with, correspondent to, or estranged from ethical duties, responsibilities, and obligations; their annotation and essays allow them to reflect and sharpen their understanding. In one exercise, students are directed to research and report back on information regarding codes of conduct for various professions (doctors, priests, mechanics, etc.).

---

**Information & Digital Literacy. *Authority and Value of Information; Digital Literacy; Information Structure; and Research as Inquiry***

*In this box, provide a narrative that explains how the proposed course addresses **3** of the components of digital literacy.*

[\*Digital Literacy / Information Structures:] Students master Blackboard both to initiate and participate in several course discussions, communicate with their classmates and instructor, check their grades, and receive course-wide and institutional updates. Students engage other important digital tools, including

email, PowerPoint, web browsers, and often other platforms like Instagram for communication, research, and production of artifacts. Students have access to tutoring services as well as a wealth of online tutorials and services available to assist their academic progress (Youtube videos, tutorials, Purdue Owl, etc.). These digital tools manifest in their presentations, their research for essays, and their formal explorations of topics and posed questions.

[\*Information Structures:] Students embrace the library, both physical and virtually, as an enormous campus resources to facilitate and conduct research and investigation. They have access to and are required to interact with the library's digital resources, including e-Books, electronic articles, and electronic reference works, especially with the final essay but also their reflective work.

[\*Research as Inquiry:] Assignments and academic interaction in the classroom emphasize a student's ability to initiate, conduct, and arrive at conclusions through a variety of research methods. The course teaches students, first, to ask good questions and then to explore through personal and academic channels various forms of knowledge that assist them in drawing a conclusion. In the final essay, for example, they are asked to explore a major philosophical thinker's ethical framework and practice and then contrast their own experience and contemporary choices. Students learn to supplement their observations with an array of support, including quotations from source material, professional commentary integrated into their writing (essays, annotations, reflections, projects), and other research. Assignments challenge students to appreciate their role in the knowledge-making adventure of academic, scholarly investigation through the process of asking questions and seeking solutions that are well-supported and engaging. Sometimes, they answer questions the faculty member proposes; sometimes, they generate their own inquiry. Nearly every project or assignment requires students to embrace the "research as inquiry" model, but their shorter response essays especially ask them to encounter, research, and report back on a focused question.

#### **D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

[https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan\\_ENMURoswell.pdf](https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan_ENMURoswell.pdf)

This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).

A handwritten signature in black ink on a light gray background. The signature appears to be "Rm / Amo" written in a cursive, stylized font.

**Date**

Mar 25 2021

## Upload Assessment

**Completed** - Mar 25 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

### [PHIL 2110 Assignment](#)

**Filename:** PHIL\_2110\_Assignment.pdf **Size:** 619.5 kB

## Upload Rubric

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

# Application: 0000001516

Shiva Rai - shiva.raai@enmu.edu  
NM General Education Curriculum

### Summary

**ID:** 0000001516

**Status:** Under Review

**Last submitted:** Mar 29 2021 03:35 PM (MDT)

## Application Form



# Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.

- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

### Contact Information

Name	Dr. Shiva Rai
Title	Assistant Professor of Mathematics
Phone	8064074298
Email	<a href="mailto:shiva.raai@enmu.edu">shiva.raai@enmu.edu</a>

### Submitting Institution

Name of HEI	Eastern New Mexico University-Ruidoso Branch Community College
Submitting Department	Department of Math and Science

### Chief Academic Officer

Name	Coda Omness
Email	<a href="mailto:coda.omness@enmu.edu">coda.omness@enmu.edu</a>

### Registrar

Name	Amy Means
Email	<a href="mailto:amy.means@enmu.edu">amy.means@enmu.edu</a>

### Is this application for your entire system (ENMU, NMSU, & UNM)?

No

## Institutional Course Information

Prefix	MATH
Number	1510
Title	Calculus I
Number of credits	4

## Was this course previously part of the New Mexico General Education curriculum?

No

## Co-requisite Course

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)

## New Mexico Common Course Information

Prefix	MATH
Number	1510
Name	Calculus I

## A. Content Area and Essential Skills

**To which area should this course be added?**

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Mathematics - Communication, Critical Thinking, Quantitative Reasoning

---

**B. Learning Outcomes**

---

## List all common course student learning outcomes for the course.

Common Course Student Learning Outcomes (find Common Course SLOs at:

<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

1. Limits a. Use limit notation. b. Compute limits or determine when a limit does not exist. c. Use limits to decide if a function is continuous. d. Use limits to decide if a function is differentiable. e. Use limits to determine asymptotes.
2. Derivatives a. Determine the derivative of a simple function, at a point as well as more generally, using the definition of the derivative. b. Determine the derivatives of algebraic and transcendental functions using the General Power, Product, Quotient, Chain Rules, implicit differentiation and the linearity of the differential operator. c. Describe the meaning of the derivative as a rate of change in a variety of contexts. d. Use derivatives to sketch graphs of functions with details showing critical points and their natures, inflection points, noting monotonicity, and concavity, connecting these to features found algebraically, such as intercepts and asymptotes. e. Compute local linear approximation.
3. Integrals a. Compute definite integrals using the limit definition and sigma notation. b. Approximate definite integrals using finite sums. c. Compute indefinite integrals by identifying them with antiderivatives. d. Compute definite and indefinite integrals using substitution. e. Describe the meaning of the integral in a variety of contexts.
4. Applications of calculus a. Solve optimization problems, related rate problems and motion problems involving position, velocity, speed and acceleration using differentiation and integration. b. Compute area bounded by functions and vertical lines. c. Be able to apply theorems of calculus such as the Fundamental Theorem, the Intermediate Value Theorem, the Mean Value Theorem, the Mean Value Theorem of Integration, and the Extreme Value Theorem.

---

## Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

N/A

## C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

**Communication. Genre and Medium Awareness, Application and Versatility; Strategies for Understanding and Evaluating Messages; and Evaluation and Production of Arguments.**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of communication.*

In this course, students will practice genre and media awareness, application, and versatility as students regularly solve mathematical problems in groups, understand how different methods can be used to solve problems. They will investigate using various media sources like the internet, alternative text books, challenging problems assigned by the instructor involving applications of the theory of differentiation and integration. They will present their findings to the class and invite discussion, solution and critique. These class discussions will be facilitated by the instructor in both oral and written form.

Students will practice strategies for understanding and evaluating messages as they try new approaches and develop math awareness used in various engineering professions through application problems and projects. Using various scenarios and media simulations, students will demonstrate mastery of the function rates of change and area calculations among many other skills. Students will explain the step by step process to solve problems.

Students will practice the evaluation and production of arguments as they translate word problems into mathematical expressions and equations. For example, students are asked to explain to each other the meaning of a limit as it relates to function change.

Students will also produce their own arguments regarding the properties of a function, including continuity, differentiability, and integrability. Communication skills be regularly assessed throughout the semester using student statements of the definitions of continuity, the derivative, and the definite integral during class discussions, pop-up quizzes and formal written exams.

**Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of critical thinking.*

Throughout the course students will demonstrate through tests, homework and quizzes, fundamental mathematics skills to more clearly understand how to perform mathematics operations. For example, students will distinguish a problem or question from an engineering related field or economics, such as system controls, and linearize a plane curve, or marginal revenue and marginal profit. Furthermore, they will develop procedures for performing these calculations.

Students will describe and discuss how rates of change problems will be used in real world applications and how they might acquire the necessary information needed to solve a problem. Critically reading problems to identify unknown quantities and represent those as variables will be demonstrated throughout the semester by lecture presentations, homework sets, group work, and chapter tests.

Students will work problems that require understanding of how the use of the rules of differentiation and implicit differentiation and to then apply these calculations. Students will use integration and area calculations to solve application problems simulating the accumulation of pressure, or velocity, to calculate outcomes.

Students will have to use critical thinking to determine which operations are required to solve the particular circumstances in a word problem. Critical thinking skills will be assessed using formal written exams, quizzes, homework assignments and in-class discussions.



**Quantitative Reasoning. Communication/Representation of Quantitative Information; Analysis of Quantitative Arguments; and Application of Quantitative Models**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of quantitative reasoning.*

By the end of the course students will have learnt differentiation and integration skills necessary for successful use in real world by expressing quantitative information symbolically, graphically and in oral communication. Students will have demonstrated mathematical concepts by solving a variety of problems based on applications from the real world.

Students will learn the use of quantitative tools via group work, formal assignments and weekly homework assignments. Students will demonstrate the graphical analysis of algebraic and transcendental functions, and express results in terms of rates of change and area estimations. Students will solve position, velocity, and acceleration equations to determine related information. Students will be familiar with differentiation and area approximations for applications and problem solving procedures: critically reading the problem until a quantity needed to be found is identified and labeled as a variable; find the relationships using the unknown quantity; building an equation using those relationships; solve the equation; and check the answer until one is certain that the answer is valid or questionable.

Students will demonstrate these skills throughout the semester in written form using math symbols and notation when necessary as well as oral communication in discussion with classmates and instructor. These skill will be assessed formally and informally through homework assignments, in-class work, chapter quizzes and midterm exams.

---

**D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

N/A

This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).

.

**Date**

Mar 29 2021

## Upload Assessment

**Completed** - Mar 29 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

### [Calculus\\_Final\\_Exam\(1\)](#)

**Filename:** Calculus\_Final\_Exam1\_Pa3t3EE.pdf **Size:** 114.6 kB

## Upload Rubric

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

# Application: 0000001521

Michael Bilopavlovich - michaelb@mesalands.edu  
NM General Education Curriculum

### Summary

**ID:** 0000001521

**Status:** Under Review

**Last submitted:** Mar 29 2021 03:24 PM (MDT)

## Application Form

**Completed** - Mar 29 2021

## Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the

essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students do to develop the essential skills throughout the course.

## Contact Information

Name	Michael Bilopavlovich
Title	Faculty
Phone	5754614413 ext. 150
Email	<a href="mailto:michaelb@mesalands.edu">michaelb@mesalands.edu</a>

## Submitting Institution

Name of HEI	Mesalands Community College
Submitting Department	Academic Affairs

## Chief Academic Officer

Name	Natalie Gillard
Email	<a href="mailto:natalieg@mesalands.edu">natalieg@mesalands.edu</a>

## Registrar

Name	Forrest Kaatz
Email	<a href="mailto:forrestk@mesalands.edu">forrestk@mesalands.edu</a>

## Is this application for your entire system (ENMU, NMSU, & UNM)?

No

## Institutional Course Information

Prefix	HIST
Number	102
Title	Survey of American History Since 1877
Number of credits	3

**Was this course previously part of the New Mexico General Education curriculum?**

Yes

**Co-requisite Course**

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)

**New Mexico Common Course Information**

Prefix	HIST
Number	1120
Name	United States History II

**A. Content Area and Essential Skills**

**To which area should this course be added?**

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Humanities - Information & Digital Literacy, Critical Thinking, Personal & Social Responsibility

## B. Learning Outcomes

---

**List all common course student learning outcomes for the course.**

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

Upon successful completion of this course the student will be able to accomplish the following with at least 70% accuracy:

1. Students will be able to EXPLAIN in their work how humans in the past shaped their own unique historical moments and were shaped by those moments, and how those cultures changed over the course of the centuries for the history of the United States from the reconstruction to the present. Bloom Taxonomy's Cognitive Process: REMEMBER AND UNDERSTAND
2. Students will DISTINGUISH between primary and secondary sources, IDENTIFY and EVALUATE evidence and EMPATHIZE with people in their historical context. Bloom Taxonomy's Cognitive Process: ANALYZE, REMEMBER, EVALUATE, CREATE
3. Students will SUMMARIZE and APPRAISE different historical interpretations and evidence in order to CONSTRUCT past events. Bloom Taxonomy's Cognitive Process: UNDERSTAND, EVALUATE, APPLY
4. Students will IDENTIFY historical arguments in a variety of sources and EXPLAIN how they were constructed, EVALUATING credibility, perspective, and relevance. Bloom Taxonomy's Cognitive Process: REMEMBER, UNDERSTAND, EVALUATE
5. Students will CREATE well-supported historical arguments and narratives that demonstrate an awareness of audience. Bloom Taxonomy's Cognitive Process: CREATE, APPLY
6. Students will APPLY historical knowledge and historical thinking "in order to infer what drives and motivates human behavior in both past and present." Bloom Taxonomy's Cognitive Process: APPLY, ANALYZE 10 11

## Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

N/A

---

### C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

***Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.***

*In this box, provide a narrative that explains how the proposed course addresses all of the components of critical thinking.*

Students will be given historical problems to analyze either through discussions, journals, or a paper. They will have to use creative skills and critical thinking as they work through these problems. In the discussions, students will be asked to describe the problem as it exists in History as well as to compare this problem to another problem in history or to current problems in our society. Students will at times wrestle with cognitive dissonance as they learn about more history, which is sometimes different from stories they grew up with. They must use critical thinking to develop new understanding of the material and to articulate that understanding in new ways.

Students will, during the course of discussion, evaluate each others' arguments and bring in research of their own to move the conversation forward in an academic way. In this collaborative approach, students will be exposed to new ideas and must find a way to reconcile them with scholarly conversation. Students will reason through their own arguments and the arguments of their peers, coming to new conclusions. In their own research, students will need to evaluate sources based upon historical accuracy and trustworthiness so that they can make sound arguments in discussions and the paper. In the journaling activities, students will use their critical thinking to understand a specific event or series of events they found interesting and articulate how they came to a new understanding of the material.



**Personal & Social Responsibility. Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global**

*In this box, provide a narrative that explains how the proposed course addresses 2 of the components of personal & social responsibility.*

Due to the nature of historical inquiry, students necessarily will interact with societal and cultural situations. Through their study of this historical time period, they will need to evaluate social and cultural mores both as they existed in the past and how they are viewed in today's world. Students are expected to be respectful and thoughtful as they explore these topics and to be sensitive to others' worldviews as they discuss social issues. Sometimes in culture, there are those who live and think very differently to ourselves, and students will discuss these topics in a professional and academic manner. Students will study various techniques those in the past had for solving environmental problems such as farming using irrigation, road building, urbanization or pollution; discovering that sometimes past methods were brought forward in history to still be used in the modern day.

In the study of subaltern history, (the history of minority groups such as Native Americans, women, African Americans, and the LGBTQ community) students will be able to evaluate the treatment of those cultures and how that treatment has changed over time, touching on societal ethics' failures and triumphs. Students will evaluate reasons for the marginalization of other cultures through Anglo ethnocentricity, Paternalism, and Patriarchy; and will work collaboratively to reason through cultural differences by the use of academic discussions. At times, they will be asked to bring personal anecdotes to the discussion, enabling a more intimate discussion through specific examples. Through journaling, students will discuss their personal experiences with history, discovering and reasoning through their own biases. Students will understand that by studying history, we can better understand the problems of the present.

**Information & Digital Literacy. Authority and Value of Information; Digital Literacy; Information Structure; and Research as Inquiry**

*In this box, provide a narrative that explains how the proposed course addresses **3** of the components of digital literacy.*

In this day and age, most students are familiar with the internet and computers. Students will turn in all their work online, and so will need to be able to navigate the class website in order to successfully complete their assignments. Because this is an online course, the students will need to be comfortable with digital literacy and able to find information on the internet. Students will be able to do their research online as well as using primary documents based on the Word Wide Web that will be provided by their instructor. The class uses Youtube videos to illustrate some concepts, as well as using primary sources published by universities, so the internet is instrumental in providing much ancillary information to the class.

Students will become more and more familiar with use of the school website as they progress through the class, learning different ways to turn in their work. They will understand that not all websites are trustworthy for historical information as some may have been written in an “armchair” fashion by non-experts, or they may belong to organizations who have a bias toward funneling their readers toward the organization as in the case of tourism-based websites who are attempting to bring business toward their community. Students will learn, following their instructor’s examples, how to evaluate information they find on the internet so that they can integrate it into their work. Students will be expected to properly cite sources they bring from the internet for evaluation by the instructor to ensure historical accuracy.

---

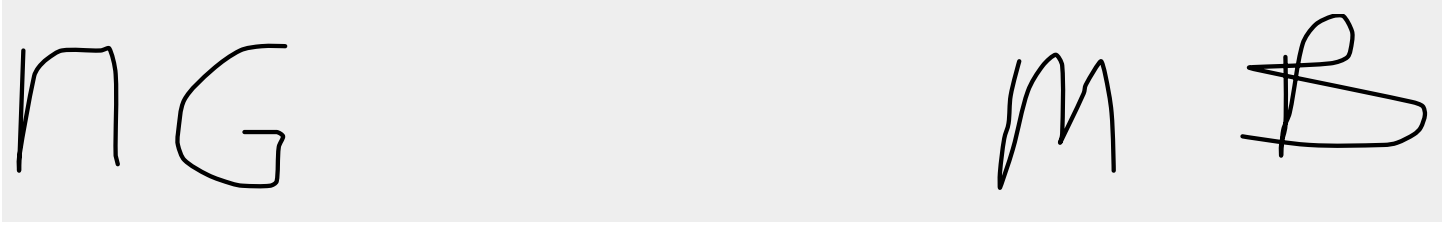
**D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

<https://www.mesalands.edu/wp-content/uploads/2020/01/SLAC-Annual-Report-2018-19-Final.pdf>

---

This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).



**Date**

Mar 29 2021

## Upload Assessment

**Completed** - Mar 29 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

[HIST 1120 Sample Assessment Document](#)

**Filename:** HIST\_1120\_Sample\_Assessment\_Document.pdf **Size:** 120.3 kB

## Upload Rubric

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

# Application: 0000001460

Dinah Hamilton - dinah.hamilton@enmu.edu  
NM General Education Curriculum

### Summary

**ID:** 0000001460

**Status:** Under Review

**Last submitted:** Mar 24 2021 12:35 PM (MDT)

## Application Form

**Completed** - Mar 24 2021

# Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout

the course.

### Contact Information

Name	Dinah Hamilton
Title	Department Chair
Phone	575-315-1160
Email	<a href="mailto:Dinah.Hamilton@enmu.edu">Dinah.Hamilton@enmu.edu</a>

### Submitting Institution

Name of HEI	ENMU-Ruidoso
Submitting Department	History, Humanities and Social Sciences

### Chief Academic Officer

Name	Coda Omness
Email	<a href="mailto:Coda.Omness@enmu.edu">Coda.Omness@enmu.edu</a>

### Registrar

Name	Amy Means
Email	<a href="mailto:Amy.Means@enmu.edu">Amy.Means@enmu.edu</a>

### Is this application for your entire system (ENMU, NMSU, & UNM)?

No

### Institutional Course Information

Prefix	SOCI
Number	1110
Title	Introduction to Sociology
Number of credits	3

**Was this course previously part of the New Mexico General Education curriculum?**

Yes

**Co-requisite Course**

Prefix	ENGL
Number	1110
Title (if applicable)	Composition 1

**New Mexico Common Course Information**

Prefix	SOCI
Number	1110
Name	Introduction to Sociology

**A. Content Area and Essential Skills**

**To which area should this course be added?**

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Social & Behavioral Sciences - Communication, Critical Thinking, Personal & Social Responsibility

## B. Learning Outcomes

---

**List all common course student learning outcomes for the course.**

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

1. Define sociological perspectives and the contributions that sociological knowledge can bring to the social sciences.
2. Understand the sociological imagination and explain the relationships between social structures, social forces and individuals.
3. Demonstrate the ability to apply the perspectives of symbolic interactionist theory, conflict theory, and structural-functionalist theory to qualitative and/or quantitative data.
4. Understand and explain intersectionality and the connections between race, class, gender, disability, sexual identity and other forms of structural inequality.

---

### **Institution-specific Student Learning Outcomes**

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

NA

## C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---



**Communication. Genre and Medium Awareness, Application and Versatility; Strategies for Understanding and Evaluating Messages; and Evaluation and Production of Arguments.**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of communication.*

Throughout the semester students are required to discuss and debate the fundamentals of sociology related to perspectives and methodologies, social inequalities, social institutions, and organized social transformation. Students apply theoretical perspectives to each chapter, examining issues in terms of functionalism, conflict theory, and symbolic interaction. They also explore creative alternatives and solutions found both domestically and globally which might reasonably be adapted to address social issues. Students are introduced to genre and medium awareness as part of a larger discussion of how social issues are presented and understood.

Student assignments use case studies, course communications, course discussion postings, written assignments and quizzes. They are also required to use primary sources from governmental and non-governmental organizations to explore current and past legislation on issues under discussion. Students also use peer-reviewed data sources and statistics from governmental or professional institutions. All students participate in course discussion forums and provide peer and instructor feedback regarding discussion topics, postings, and issues. Students use APA formatting for all papers, and must cite any quoted material within discussion forums. Students must formulate arguments and conclusions based on sound data within the discussion forums, and must cite their sources according to APA standards. Within the discussion forum, they may be challenged by the instructor or other students to factor in other issues or data as part of the reasoning process.

Guidelines presented by the instructor encourage participation by all students, cultural sensitivity in remarks, and the consideration of varied viewpoints. Peer-reviewed articles, court opinions, and op-ed pieces by respected contemporary thinkers provide a varied and reasoned backdrop for ethical discussions and papers. The instructor provides informal feedback and factors for additional consideration throughout discussions.

**Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of critical thinking.*

Students prepare written assignments demonstrating an understanding of the difference between an unsupported opinion or bias, and a position supported by researchable facts from reliable and reputable sources. Written assignments are derived from assignments posted by the instructor. The assignments require students to set aside simplistic sound bites in favor of scholarly explorations of socio-cultural and political issues. Weekly quizzes pose questions designed around the fundamentals of the learn styles, comprehension, and recall.

Written assignments offer an opportunity for students to demonstrate an understanding of the difference between an unsupported opinion or bias, and a position supported by researchable facts from reliable and reputable sources. They also facilitate the practice of synthesizing data into a cohesive articulation of factors influencing social issues and institutions.

The course begins by exploring perspectives and methodologies surrounding culture, society, socialization, deviance and other grounding facets of sociological constructs. Here, students learn to set aside polarizing determinations in exchange for more sophisticated, nuanced understanding of multifaceted issues. They explore the influence of religious and political lenses as they relate to world view, bias, and civil discourse surrounding responsible approaches to social issues, such as a determination that a problem exists at all, whether it broadly affects society, and applicable causes and solutions. Student discussions apply these measures to each module, assessing relevancy in terms of moral, democratic, and social perspectives.

Additional foundations for the exploration of social problems includes ethical engagement, economic motivations and political pressures. Once identified and assessed, students explore the way issues are interwoven. Each module integrates ways that these elements contribute to the challenges and strengths of society as a whole.

From this academic posture, students explore issue silos and cross interests of the social inequalities of class, race, and gender, as well as the critical role of social institutions (i.e. economics, politics, family structure, education, religion and healthcare). Students also explore organized social constructs focusing on transformational change and collective social action. As each new module is introduced and assessed, students examine areas of intersectionality with previous issues studied.

**Personal & Social Responsibility. *Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global***

*In this box, provide a narrative that explains how the proposed course addresses 2 of the components of personal & social responsibility.*

Each student discussion exercise requires a 250 word primary post and at least two 150 responses to their peers demonstrating their understanding of social challenges, perspectives, worldviews, and policies. Students are to look at creative alternatives and solutions found both domestically and globally which might reasonably be adapted to address the most challenging social issues of our times. Each module focuses on individual contributions and social responsibilities. Discussion prompts emphasize examples drawn from current events as they are applied to the overarching topic. This allows the course to remain relevant in real time, and to demonstrate the importance of personal and social responsibility as it relates to the issue of the day, as well as broader ripple effects throughout organized society.

Instructor guidelines encourage participation by all students, cultural sensitivity in remarks, and the consideration of varied viewpoints. Students learn the evidentiary value of peer-reviewed articles, court opinions, and respected op-ed pieces by contemporary thinkers with expertise in the field. These sources are required to all provide a varied and reasoned backdrop for ethical discussions and papers.

---

#### **D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

The assessment plan is currently under construction and will be available on the college website.

---

This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).



**Date**

Mar 24 2021

## Upload Assessment

**Completed** - Mar 24 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

### [SOCI 1110 Term Paper Assignment](#)

**Filename:** SOCI\_1110\_Term\_Paper\_Assignment.pdf **Size:** 25.2 kB

## Upload Rubric

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

## Application: 0000001436

Michael Raine - mraine@unm.edu  
NM General Education Curriculum

### Summary

**ID:** 0000001436

**Status:** Under Review

**Last submitted:** Mar 23 2021 07:42 AM (MDT)

# Application Form

Completed - Mar 18 2021

## Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

### Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

### Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

### Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.

- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

### Contact Information

Name	Dr. Jason Wilby
Title	Senior Lecturer of German
Phone	505-277-4771 / 949-468-7881
Email	<a href="mailto:jwilby@unm.edu">jwilby@unm.edu</a>

### Submitting Institution

Name of HEI	UNM Main
Submitting Department	German

### Chief Academic Officer

Name	Pamela Cheek
Email	<a href="mailto:pcheek@unm.edu">pcheek@unm.edu</a>

### Registrar

Name	Michael Raine
Email	<a href="mailto:mraine@unm.edu">mraine@unm.edu</a>

### Is this application for your entire system (ENMU, NMSU, & UNM)?

Yes

## Institutional Course Information

Prefix	GRMN
Number	2227
Title	Sickness, Insanity and Transgression in German Literature and Film
Number of credits	3

## Was this course previously part of the New Mexico General Education curriculum?

No

## Co-requisite Course

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)

## New Mexico Common Course Information

Prefix	GRMN
Number	2227
Name	Sickness, Insanity and Transgression in German Literature and Film

## A. Content Area and Essential Skills

## To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Humanities - Information & Digital Literacy, Critical Thinking, Personal & Social Responsibility

## B. Learning Outcomes

### List all common course student learning outcomes for the course.

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

- 1) Students will explore and discuss how diverse societies and cultures create social meaning in a historical context, and relate that to contemporary contexts.
- 2) Students will explore and explain the role played by different forms of cultural expression in the creation of communities of inclusion and exclusion.
- 3) Students will analyze cultural artifacts and design ways of understanding diverse human experiences in a historical context, and relate these to contemporary contexts.
- 4) Students will organize and write essays of cultural criticism, supporting arguments with appropriate quotations from primary and secondary texts, and using digital resources for their research.

### Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

NOTE: This course has been submitted for CCN (HED #1518) approval. It is a new course at UNM.



## C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

**Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of critical thinking.*

Critical thinking skills represent a core aspect of this course in all in-class and homework activities and discussions. The course has eight core deliverable assignments (not including regular reading/viewing and in-class individual and groups tasks), and critical thinking, in the form of at least one of the component skills, comprises part of all eight assignments (for a list and description of the course assignments, please see the course syllabus). As such, any individual assignment will potentially address a number of the component skills. For example, in assignment #5 – the Final Research Project Prospectus – students are asked to work through problem setting, evidence acquisition and evidence evaluation in a collaborative and contextualized way in order to develop a research topic based on learner-generated questions about and interests in the course.

The critical thinking component skills include: Problem setting, evidence acquisition, evidence evaluation and reasoning/conclusion. Assignments #1 (Comparative Cultural Reflection) and #2 (Visual Analysis) focus learners' attention early in the semester on problem setting by asking them to begin with their own perceptions and reactions in order to generate researchable questions. Assignment #3 (Digital Literacy / Assess Information) and assignment #4 (Digital Literacy / Delineate Question) focus on evidence acquisition and evaluation and include a field trip to the UNM library and an introduction to the search tools available in the library. In the deliverable part of the assignment, students think critically about their experience reading ETA Hoffmann's *The Golden Pot*, then locate two secondary articles dealing with student-generated issues or questions and assess the articles in terms of their interpretive value. Finally, assignments #6 (Position Paper), #7 (Personal Memoir of Well-Being) and #8 (Final Capstone Research Paper and Presentation) focus on reasoning/conclusion by asking students to come to reasoned conclusions in differing contexts. In the case of assignments #6 and #7, those conclusions will be based partially on individual values and ideals. Whereas assignment #8 focuses on making well-informed and well-reasoned conclusions based on the analysis of primary and secondary materials.

**Personal & Social Responsibility. *Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global***

*In this box, provide a narrative that explains how the proposed course addresses 2 of the components of personal & social responsibility.*

As above, the structure of this course was designed with an eye towards developing the HED essential skills, and the essential skill area “personal and social responsibility” figures prominently throughout the course. As mentioned, the course has eight core deliverable assignments (not including regular reading/viewing and in-class individual and groups tasks), and personal and social responsibility, in the form of at least one of the component skills, comprises part of five of the eight assignments (for a list and description of the course assignments, please see the course syllabus). In addition, class discussions will bring ethics and ethical questions/considerations to the fore very often, as the assignments are designed to focus students’ attention on those aspects of the cultural phenomena we consider throughout the semester.

The personal and social responsibility skills include: Intercultural reasoning and intercultural competence; sustainability and the natural and human worlds; ethical reasoning; collaboration skills, teamwork and value systems; and civic discourse, civic knowledge and engagement – local and global. I will address the first two of these component skills here. This course focuses on cultural expressions from the late nineteenth and early twentieth centuries in the German cultural sphere. As such, intercultural reasoning and intercultural competence are built into the material, as the class will be considering the material from an American perspective. Specifically, assignments #1 (Comparative Cultural Reflection), #2 (Visual Analysis) and #6 (Position Paper), respectively, ask students to reflect on intercultural differences, to contextualize cultural phenomena in their time and place, and to think critically about the contextual nature of ethical statements and assumptions. Assignment #7 (Personal Memoir of Well-Being) develops the component skill “sustainability and natural and human worlds”, focusing attention on sustainability in the human world. The personal memoir of well-being provides students a venue for thinking about the socio-cultural and ethical basis of current praxis in the medical and psychological praxis, and ways in which those fields might be made more ethically sustainable, especially for the actual people who fall outside of socially-constructed “norms”.

**Information & Digital Literacy. Authority and Value of Information; Digital Literacy; Information Structure; and Research as Inquiry**

*In this box, provide a narrative that explains how the proposed course addresses 3 of the components of digital literacy.*

In addition to critical thinking skills, this course focuses attention on information and digital literacy skills throughout. As mentioned, the course has eight core deliverable assignments (not including regular reading/viewing and in-class individual and groups tasks), and information and digital literacy, in the form of at least one of the component skills, comprises part of five of the eight assignments (for a list and description of the course assignments, please see the course syllabus). As in the case of critical thinking, in this essential skills category any individual assignment will potentially address a number of the component skills.

The information and digital literacy skills include: Authority and value of information, digital literacy, information structures and research as inquiry. I will address the last three of these component skills here. In assignment #8 (Final Capstone Research Paper and Presentation) students develop digital literacy skills by working collaboratively to understand, create, design and communicate an in-class interactive presentation of their research topic, questions and findings. This presentation will include digital visual support. Assignment #3 (Digital Literacy / Assess Information) develops the component skill “information structures”, by requiring students to complete their critical précis analyses utilizing the MLA formatting style, which requires citation formatting, quoting, paraphrasing and summarizing of secondary material in a very specific way. One of the most exciting and personally fulfilling component skills in this essential skill area is research and inquiry. Assignment #4 (Digital Literacy / Delineate Question) was conceptualized as a test run of the “research as inquiry” approach to utilizing individual/personal questions and interests in order to create research questions and then embedding the research results in an existing academic discussion. Assignments #5 (Final Research Project Prospectus) and #8 (Final Capstone Research Paper and Presentation) pick up and develop these skills further by introducing a collaborative dimension to the process.

## D. Assessment Plan (Must be on file with HED by August 1, 2019)

Link to Institution's General Education Assessment Plan

<http://assessment.unm.edu/assessment-types/gened-assessment/index.html>

This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).



Date

Mar 17 2021

## Upload Assessment

Completed - Mar 18 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

### [GRMN2227 Sample Assignment](#)

Filename: GRMN2227\_Sample\_Assignment.pdf Size: 143.9 kB

## Upload Rubric

Completed - Mar 18 2021

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

### [GRMN2227 Essay Assessment Rubric](#)

Filename: GRMN2227\_Essay\_Assessment\_Rubric.pdf Size: 90.8 kB

# Application: 0000001517

Robert Moore - Robert.Moore@rm01.enmuros.cc.nm.us

## Summary

**ID:** 0000001517

**Status:** Under Review

**Last submitted:** Mar 29 2021 02:10 PM (MDT)

## Application Form

**Completed** - Mar 29 2021

## Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

# Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

## Contact Information

Name	Robert Moore
Title	Assistant VP
Phone	5756247001
Email	<a href="mailto:robert.moore@roswell.enmu.edu">robert.moore@roswell.enmu.edu</a>

## Submitting Institution

Name of HEI	ENMU-Roswell
Submitting Department	Science

## Chief Academic Officer

Name	Annemarie Oldfield
Email	<a href="mailto:annemarie.oldfield@roswell.enmu.edu">annemarie.oldfield@roswell.enmu.edu</a>

## Registrar

Name	Linda Neel
Email	<a href="mailto:linda.neel@roswell.enmu.edu">linda.neel@roswell.enmu.edu</a>

**Is this application for your entire system (ENMU, NMSU, & UNM)?**

No

**Institutional Course Information**

Prefix	BIOL
Number	1650
Title	Wildlife Biology
Number of credits	3

**Was this course previously part of the New Mexico General Education curriculum?**

Yes

**Co-requisite Course**

Prefix	BIOL
Number	1650L
Title (if applicable)	Wildlife Biology Lab

**New Mexico Common Course Information**

Prefix	BIOL
Number	1650
Name	Wildlife Biology Lecture + Lab

**A. Content Area and Essential Skills**



## To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Science - Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning

## B. Learning Outcomes

### List all common course student learning outcomes for the course.

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

1. Understand the concepts, theories, facts, and principles related to fisheries, wildlife, and conservation biology, as well as their perspectives and associated values
2. Develop the ability to draw reasonable inferences from observations and to distinguish between fact and opinion
3. Improve communication skills through short writing assignments
4. Be knowledgeable of many fundamental biological concepts and principles that govern wildlife biology and fisheries
5. Be able to identify several common species of New Mexico wildlife by sight
6. Appreciate the diversity of life and understand the objectives and principles of biological conservation

### Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

NA

## C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

**Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of critical thinking.*

The introduction to wildlife and fisheries course incorporates many technological, scientific, and legislative advances of the past 20 years while maintaining the ultimate goal of offering students an introductory, but comprehensive view of all aspects of wildlife and fisheries. The course is designed as an introduction to the principles involved in wildlife and fisheries and how these principles relate to the organisms in question, their habitats, and their users. The scientific method is important in wildlife and fisheries research and it is taught and used throughout the lecture and lab course. Students learn that it is imperative to remember that the scientific method cannot prove that a theory or hypothesis is correct. It can only reject or not reject the hypothesis. Critical thinking is evaluated in both the lecture and laboratory courses by examining issues, breaking the issues down, and evaluating the issues in a conscious manner, while providing arguments/evidence to support the evaluation. For example, after learning about the scientific method in lecture it is applied in the laboratory course. The students are divided into small groups ( $X \leq 5$ ) and asked to read a case study about the Ivory-Billed Woodpecker (IBW). The case is divided into three parts (1) background information, (2) main evidence, and (3) email exchange between two scientists. The students must decide what evidence they would need to prove the IBW's existence, what evidence we have for its existence and its validity, and how to interpret the data for its existence. Other tools used in the course for critical thinking include weekly discussion questions, quizzes, exams, comprehensive final exam, and a term paper. All exams, including the final, include both subjective and objective questions.

**Quantitative Reasoning. Communication/Representation of Quantitative Information; Analysis of Quantitative Arguments; and Application of Quantitative Models**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of quantitative reasoning.*

For this lecture and lab course, students encounter brief in-class exercises in quantitative application throughout the semester that repeatedly call on the same set of quantitative skills in different biological contexts. By the end of the semester students are expected understand basic statistical information. Students are taught central tendency (mean, median. and mode), hypothesis testing and statistical significance, and probability. Also, students

Are taught percentage problems, how to interpret graphs, and basic unit conversions.

All experiments resolve around the use of the scientific method, data collection, interpretation of data, making conclusions, and making recommendations for further studies. All lab meetings require students to gather quantitative data. This data is then analyzed and interpreted. Students are taught to use Word, Excel, and PowerPoint to illustrate data in various formats.

Throughout the course, I integrate quantitative and biological reasoning in course learning outcomes, in-class student activities, assignments, and exams. Students in the wildlife lecture and lab course often work on problems presenting biological data and are asked to articulate conclusions based on such evidence, and to provide appropriate reasoning in support of their claims. For example, in order to predict if a population will grow or shrink, a biologist will need to know birth and death rates for organisms at different ages as well as the current age and sex makeup of the population. So, on one of the exam questions, students are provided a life table and asked to fill-in the blanks for the missing data. See attachment 2 – Exam 3 Sample Question 60. By looking at the life table, students should be able to determine when an animal has the greatest risk of death. Also, they should be able to pick out high-risk periods. For example, young tend to be easy prey for predators and may die of exposure. Lastly, students should be able to determine where the death rate is high and determine the age when that begins. Typically, this is showing the animals lifespan and death due to old age, unless it appears at the beginning or the middle of the graph. Another question involves interpreting a survivorship graph. A survivorship curve shows what fraction of a starting group is still alive at each successive age.

**Personal & Social Responsibility. *Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global***

*In this box, provide a narrative that explains how the proposed course addresses 2 of the components of personal & social responsibility.*

In both the lecture and laboratory course, personal and social responsibility concepts are taught throughout the semester. Students are asked on exam 1, "What is a fishery or a wildlife system?" From their notes and text reading they tell me that it is composed of three interacting components: biota, habitat, and human users. As humans, we have a direct impact on each of these three components – some good and some bad. There is no doubt that through expanding human demands on land, sea, and fresh water, along with the impacts of climate change, humans have made the conservation and management of wild areas and wild animals a top priority. A question I ask my students is "What should we protect when managing and conserve wildlife?" Through lecture and lab discussions, students soon realize that there is no single answer. Competing values, and different prioritizations of values create ethical dilemmas and disagreements. One example of how I do this in lab is that I divide students into small groups ( $X \leq 6$ ) and assign a topic like "wolf reintroduction in NM." The group is then subdivided into two subgroups, one group is the pro side of the issue and the other group is the con side of the issue. Students are given time to do their research, answer a series of questions, and then meet to debate the topic. Students soon realize there is no simple or single answer to topics like this one. A follow up case study is given to students addressing whether there is an overcrowding of deer in the Santa Fe National Forest and what to do if there is such an issue.

Lastly, a term paper is assigned where students select from a list of New Mexico mammals, birds, amphibians, and reptiles. The students must use the BISON-M web site, a state database, and select specific information about the animal of choice giving information and resources about its life-span, productivity, breeding season, migration characteristics (if any), preferred habitats, food habits, management status in NM (harvested for sport and/or subsistence, protected, etc.), government agency with management authority, etc. Students then create a PowerPoint presentation to summarize and share the information with class members.

#### **D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

[https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan\\_ENMURoswell.pdf](https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan_ENMURoswell.pdf)

**This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).**

A handwritten signature in black ink, appearing to read "Rm / AMO". The signature is written in a cursive, stylized font.

**Date**

Mar 29 2021

## **Upload Assessment**

**Completed** - Mar 29 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

### **BIOL 1650 Assignment**

**Filename:** BIOL\_1650\_Assignment\_.pdf **Size:** 188.8 kB

## **Upload Rubric**

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

# **Application: 0000001421**

Jeff Frawley - jeff.frawley@enmu.edu

## Summary

**ID:** 0000001421

**Status:** Under Review

**Last submitted:** Mar 25 2021 11:25 AM (MDT)

## Application Form

**Completed** - Mar 23 2021

## Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

# Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

## Contact Information

Name	Jeff Frawley
Title	Department Chair
Phone	5753151120
Email	<a href="mailto:jeff.frawley@enmu.edu">jeff.frawley@enmu.edu</a>

## Submitting Institution

Name of HEI	Eastern New Mexico University-Ruidoso Branch Community College
Submitting Department	Language and Fine Arts

## Chief Academic Officer

Name	Coda Omness
Email	<a href="mailto:Coda.Omness@enmu.edu">Coda.Omness@enmu.edu</a>



## Registrar

Name	Amy Bertramsen
Email	<a href="mailto:Amy.Bertramsen@enmu.edu">Amy.Bertramsen@enmu.edu</a>

## Is this application for your entire system (ENMU, NMSU, & UNM)?

No

## Institutional Course Information

Prefix	ENGL
Number	2520
Title	Film as Literature
Number of credits	3

## Was this course previously part of the New Mexico General Education curriculum?

Yes

## Co-requisite Course

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)

## New Mexico Common Course Information

Prefix	ENGL
Number	2520
Name	Film as Literature

### A. Content Area and Essential Skills

#### To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Humanities - Information & Digital Literacy, Critical Thinking, Personal & Social Responsibility

### B. Learning Outcomes

#### List all common course student learning outcomes for the course.

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

1. Develop an understanding of the cultural, historical, and technical contexts for various films.
2. Identify, define, and analyze basic film techniques used in different genres and time periods.
3. Analyze how film uses literature by studying different sources of adaptation.
4. Demonstrate an understanding of film in its various aspects by writing film analysis, reviews, and/or other projects.

## Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

N/A

---

### C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

**Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of critical thinking.*

Students throughout the semester complete a number of online interactive quizzes using Norton's Inquisitive platform; for these quizzes, students must view or analyze stills or clips from film, then use evidence acquired to come up with conclusions to answer the questions. The quiz questions provide a problem students must work through related to common film techniques and terms. For instance students, via these quizzes, analyze film form, common genres, filmography, elements of narrative, filming technique, cinematography, film editing, acting, etc. Students complete weekly online discussions for which they must provide evidence from both the textbook and from samples of film to offer their conclusions on specific film concepts. Oftentimes these discussions are set up as problems students must think critically about, and the discussions require students to use evidence from the textbook and from sample films they've viewed to evaluate key film concepts. For instance, one discussion requires students to compare key characteristics of different genres of films they've viewed (e.g. blockbuster vs. indie films). For another, they must discuss how course concepts have changed the way they view films now. For another, they must use evidence from a film to discuss how the concept of mise-en-scene is employed in the film. Throughout the semester, students complete assignments for which they must analyze evidence from a film, usually in the form of still shots or short clips, and then use this evidence to reason what the intentions of the filmmaker are. For instance, in a unit on camera angles, students view a variety of still shots from well-known films and must determine filming techniques being used. For a "Writing About Film" critical analysis short essay, students must use evidence from both a film and course materials to describe the significance of a film and its context within a film genre. This assignment requires students to set a problem by establishing what makes the film interesting or innovative; and they must also evaluate specific elements of the film in order to make conclusions about the film's larger meaning.

**Personal & Social Responsibility. *Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global***

*In this box, provide a narrative that explains how the proposed course addresses 2 of the components of personal & social responsibility.*

In the quizzes and activities described above, students are asked to demonstrate cultural competence by analyzing and studying films from a diverse range of countries, made by filmmakers from around the world. Students also, in the Film History and Film Genre units, are assessed on intercultural competence by completing quizzes and online discussions on the political, historical, and social implications and contexts for a variety of films. Again, in doing this, they engage with films and contexts from around the world. Students also study and complete quizzes and discussions on films produced throughout the 20th and 21st Centuries, thereby needing to demonstrate intercultural reasoning by thinking critically about different time periods and historical information. Students are required to demonstrate collaboration and teamwork skills throughout the semester by completing weekly online discussions, for which they share insight into films they've viewed, share film analysis, and share film recommendations. At the end of the semester, for a filmmaking assignment, students create their own short films; as a part of the process, they share storyboards with one another for feedback, and they also share their final products with one another. When this course is taught face-to-face, students practice both collaboration and civic discourse by gathering for film viewings and discussions.

**Information & Digital Literacy. Authority and Value of Information; Digital Literacy; Information Structure; and Research as Inquiry**

*In this box, provide a narrative that explains how the proposed course addresses **3** of the components of digital literacy.*

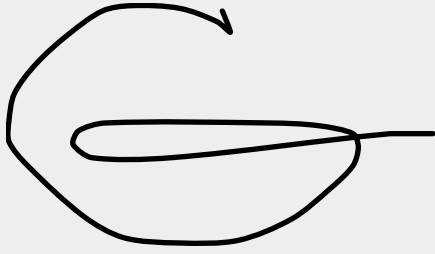
Students practice digital literacy by completing a variety of online activities through the LMS, including quizzes, online lessons, flashcard activities, online discussions, etc. For these assignments and activities, they engage with digital multimedia in the form of film clips, still shots, video tutorials, etc. They also create their own short filmmaking projects at the end of the semester, for which they must use a digital camera or recording device, and have the option to create a digital storyboard for their film. Students recognize the authority and value of information in each of their quizzes, as they must apply concepts and terminologies from filmmaking and the filmmaking industry to analyze film. Students also, through completing discussions on the film industry, learn about both successful and problematic mechanisms within the filmmaking industry, including the ethics of filmmaking and production. Students must demonstrate familiarity with information structures during the end-of-semester filmmaking assignment, for which they must produce, organize, and share information in appropriate genre formats, including both a film script and a film storyboard. They must also demonstrate competence with information structures in their film itself, trying out effective filming and editing techniques studied throughout the semester.

**D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

The link to the college assessment plan is under construction as part of the college's new web site.

This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).



**Date**

Mar 11 2021

## Upload Assessment

**Completed** - Mar 23 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

### [Writing About Film-An Analysis of a Narrative](#)

**Filename:** Writing\_About\_Film-An\_Analysis\_of\_a\_Narrative.pdf **Size:** 108.4 kB

## Upload Rubric

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

# Application: 0000001478

John McCullough - johnvalmcc@beyondbb.com  
NM General Education Curriculum

### Summary

**ID:** 0000001478

**Status:** Under Review

**Last submitted:** Mar 25 2021 08:25 PM (MDT)

## Application Form

# Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.



- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

### Contact Information

Name	John McCullough
Title	Business & IS Chair
Phone	575-315-1148
Email	<a href="mailto:John.McCullough@enmu.edu">John.McCullough@enmu.edu</a>

### Submitting Institution

Name of HEI	ENMU - Ruidoso
Submitting Department	Business and Information Systems

### Chief Academic Officer

Name	Coda Omness
Email	<a href="mailto:Coda.Omness@enmu.edu">Coda.Omness@enmu.edu</a>

### Registrar

Name	Amy Means
Email	<a href="mailto:Amy.Means@enmu.edu">Amy.Means@enmu.edu</a>

### Is this application for your entire system (ENMU, NMSU, & UNM)?

No

## Institutional Course Information

Prefix	ECON
Number	1110
Title	Survey of Economics
Number of credits	3

## Was this course previously part of the New Mexico General Education curriculum?

Yes

## Co-requisite Course

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)

## New Mexico Common Course Information

Prefix	ECON
Number	1110
Name	Survey of Economics

## A. Content Area and Essential Skills

## To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Social & Behavioral Sciences - Communication, Critical Thinking, Personal & Social Responsibility

## B. Learning Outcomes

### List all common course student learning outcomes for the course.

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

1. Demonstrate a contextual understanding of economic terms and concepts.
2. Recognize and analyze common economic issues which relate to individual markets and the aggregate economy.
3. Learn basic economic principles that influence global trading and challenges relating to globalization.
4. Outline the implications of various economic policies on individuals and on economies.
5. Demonstrate ability to use diagrams and graphs to explain economic principles, policies and their applications.
6. Appreciate and understand how individual decisions and actions, as a member of society, affect economies locally, nationally and internationally.
7. Explain the roles of governments in influencing buyer and seller behavior in the market and how government failure occurs when intervention fails to improve or actually worsens economic outcomes.
8. Be able to apply course concepts to interpret, evaluate and think critically about economic events and policies, especially as regularly reported in the media and other public forums.

## Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

None

---

### C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

**Communication. Genre and Medium Awareness, Application and Versatility; Strategies for Understanding and Evaluating Messages; and Evaluation and Production of Arguments.**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of communication.*

The requirements for this course will include readings, discussion questions, weekly chapter quizzes and overall exams. Each of these activities are chosen to focus on particular outcomes and essential skills. These activities are those that are intended to focus attention on communication skills. Throughout the term students are presented with a variety of economic questions or dilemmas. Students will be required to participate in structured, graded discussions over these questions. Students will be expected to evaluate the situation, and explain the situation in terms of the economic implications. Current events from various sources that apply to the situation are to be searched for, and explained in their discussions. Students will be asked for their opinion or thoughts on the situation and be expected to provide support for their conclusions from economic concepts being studied. Replies to classmates' posts will be required in which agreement or civil disagreement is presented, supported by sound reasoning in their arguments. Weekly, multi-attempt chapter quizzes reinforce the student's understanding and application of economic concepts and terms, and provide regular assessment of their understanding of the material.

**Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of critical thinking.*

These activities are those that are intended to focus attention on the students' critical thinking skills. The structured and graded discussion assignments over a variety of economic issues provide the students with practice in defining the situation being presented, obtaining the relevant explanation, and then applying relevant concepts in their own words. Students will be required to understand the problem, and are asked for their opinion or thoughts on the situation and be expected to provide support for their conclusions from economic concepts being studied. An example of a situation requiring critical thinking skills is, "How is it possible that the price of a college education has increased significantly over the past 40 years, and yet many more students are attending college? Does this relationship defy the law of demand?" Replies to classmates' posts will be required in which agreement or civil disagreement is presented, supported by sound reasoning. Also adding to the student's practice in evaluating and correctly applying material are the weekly, multi-attempt chapter quizzes, which also provide feedback. The feedback from the weekly chapter quizzes lead up to exams over that same material.

**Personal & Social Responsibility. *Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global***

*In this box, provide a narrative that explains how the proposed course addresses 2 of the components of personal & social responsibility.*

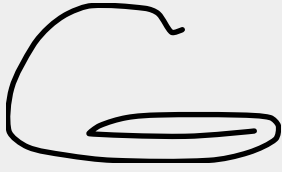
These activities are those that focus the student's attention on the personal and social aspect of economic concepts and theories. In the structured and graded discussions assigned throughout the term students are faced with a variety of economic situations and ethical dilemmas that present tradeoffs that impact different stakeholders. An example of a situation to be discussed is: "Kidney Shortages – Should there be a free market in kidneys where those needing a kidney could buy one from those willing to sell one of their two." Another example is: "Designating parking spaces for disabled drives may not be an efficient use of scarce parking spaces." This illustrates the debate between efficiency and equity. The concept of reasoning out the benefits of economic efficiency versus the ethical consideration of "fairness" to all impacted groups is a consistent theme in the discussions. This would include the balance of economic gains that create unintended consequences, such as damage to the environment, or to other inhabitants. The students' justification and reasoning is a key part of their original discussion. Their required reply to classmates' posts will require engagement with others sharing their respective views and values. The weekly, multi-attempt chapter quizzes, and the exams provide additional examples of situations that require the student to apply their reasoning skills in questions involving personal and social responsibility.

#### **D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

The link to the college assessment plan is under construction as part of the college's new web site.

This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).



**Date**

Mar 25 2021

## Upload Assessment

**Completed** - Mar 25 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

### [ECON 1110 Discussion Assignments](#)

**Filename:** ECON\_1110\_Discussion\_Assignments.pdf **Size:** 282.9 kB

## Upload Rubric

**Completed** - Mar 25 2021

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

### [Survey of ECON Discussion Rubric](#)

**Filename:** Survey\_of\_ECON\_Discussion\_Rubric.pdf **Size:** 186.2 kB

# Application: 0000001537

Julia Deisler - julia.deisler@sfcc.edu  
NM General Education Curriculum

### Summary

**ID:** 0000001537

**Status:** Under Review

**Last submitted:** Apr 2 2021 07:39 AM (MDT)

## Application Form



# Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.

- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

### Contact Information

Name	Shuli Lamden
Title	Dept. Co-Chair
Phone	505-428-1336
Email	<a href="mailto:shuli.lamden@sfcc.edu">shuli.lamden@sfcc.edu</a>

### Submitting Institution

Name of HEI	Santa Fe Community Colleg
Submitting Department	English, Reading, and Speech

### Chief Academic Officer

Name	Margaret Peters
Email	<a href="mailto:margaret.peters@sfcc.edu">margaret.peters@sfcc.edu</a>

### Registrar

Name	Kathleen Sena
Email	<a href="mailto:kathleen.sena@sfcc.edu">kathleen.sena@sfcc.edu</a>

### Is this application for your entire system (ENMU, NMSU, & UNM)?

No

## Institutional Course Information

Prefix	COMM
Number	2140
Title	Small Group Communication
Number of credits	3

## Was this course previously part of the New Mexico General Education curriculum?

Yes

## Co-requisite Course

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)

## New Mexico Common Course Information

Prefix	COMM
Number	2140
Name	Small Group Communication

## A. Content Area and Essential Skills

## To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Communications - Communication, Critical Thinking, Information & Digital Literacy

## B. Learning Outcomes

### List all common course student learning outcomes for the course.

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

1. Apply basic group communication principles in a variety of contexts.
2. Demonstrate effective group interaction skills in a variety of contexts.
3. Identify and apply group communication strategies and skills that facilitate the achievement of group goals in a variety of contexts.
4. Explain and apply the principles and practices of ethical communication in a variety of group contexts.

### Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

NA

## C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

### **Communication. Genre and Medium Awareness, Application and Versatility; Strategies for Understanding and Evaluating Messages; and Evaluation and Production of Arguments.**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of communication.*

Genre and Medium Awareness, Application, and Versatility: Through regular reading and discussion assignments, students analyze small group communication theory, dynamics, and interactions in media potentially including but not limited to textbook readings, speeches, podcasts/radio recordings, films, online lectures, advertisements, graphic and visual texts, and online discussion postings. Students learn about active listening, diversity in small group interactions, power dynamics and group roles, different communication styles, the effects of medium on messages, and methods for improving the effectiveness of small group communication. Students also communicate in small groups for planning discussions that culminate in group presentations at the end of the semester that center on current events topics; the final project planning process includes choosing the style and tone of the final group presentation.

Strategies for Understanding and Evaluating Messages: Students practice collaborative and respectful group communication by participating in large and small group discussions of textbook concepts and other assigned course material. Through reading quizzes, class discussions, and face-to-face group project planning sessions (to include Zoom meetings if necessary), students demonstrate their understanding of main ideas and supporting details as well as analyze the purpose, audience, type(s) of support, and overall effectiveness of various genres and media of communications, including class texts, assigned video/audio material, and research gathered by students outside of class.

Evaluation and Production of Arguments: Students produce a group speech presentation that is based on

their analysis of perspectives on and arguments about their chosen topic and supported by correctly documented college-level research, a semester-long process that includes choosing a current events topic as a group, researching, group planning, rehearsing, and recording the final presentation. Each group meet face-to-face (to include Zoom meetings if necessary) a minimum of four times over the course of the semester to demonstrate their understanding and execution of a specific group task in preparation for the final presentation, and to analyze the concepts being studied such as small group roles, dealing compassionately with diversity, and small group communication dynamics. Some of this analysis is done through self-evaluation of how the student is applying concepts of small group communication in their assigned small groups and in life beyond the classroom. The final presentation demonstrates understanding of not only the group's chosen topic and the argument(s) that surround(s) that topic, but also of the specific audience for whom the presentation is prepared and the specific purpose of the speech; and the presentation employs clear evidence of conventions of small group communication, such as respect and clarity, as well as conventions of scholarly work like solid academic reasoning and correct documentation of source material.

---

***Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.***

*In this box, provide a narrative that explains how the proposed course addresses **all** of the components of critical thinking.*

Problem Setting: Students examine problems in small group communication through a variety of lenses, including reading about and then identifying examples of small group communication concepts from their own lives or from media to potentially include but not be limited to film, radio, podcasts, interviews, personal interactions, and TV, and discussions may entertain relevant popular media in addition to scholarly examples of course concepts. Students find, engage with (through viewing, listening, and/or reading), write about, and discuss articles and other sources on and examples of small group communications, and in preparation for the final project, articles and other sources on a variety of topics. In the final group presentation, each small group collectively demonstrate a primary purpose by explicitly identifying a topic, defining the perspectives and argument(s) associated with that topic, and discussing the background and nuances of the group topic. In a reflective self-evaluation paper, students also analyze the small-group dynamics and communication that took place during their group work on the final project.

**Evidence Acquisition:** Students are required to hone and demonstrate research and evidence gathering skills in preparation for the final group presentation, to include but not limited to engaging with library resources, seeking appropriate and relevant sources from outside the SFCC library databases and resources, and seeking assistance from the SFCC librarians and/or the professor when the student encounters an obstacle or needs direction.

**Evidence Evaluation:** Students evaluate information as it is shared by speakers, evaluate information contained in various source media, and evaluate sources for their credibility and applicability to the final presentation. Also in preparation for the final group presentation, each student create an annotated bibliography to demonstrate individual evaluation of both SFCC library and outside sources based on their currency, reliability, authority, accuracy, and purpose.

**Reasoning/Conclusion:** Through class discussions, written and verbal assignments, and research tasks, students analyze support in the work of published authors and speakers, as well as within their own writing, and in other media and communications. Students apply their understanding of research, course topics, and assigned course materials in group settings to articulate clear connections among disparate evidence for a variety of listeners, identify a piece of media's central argument and audience, then arrive at valid and supported academic conclusions; students must also demonstrate understanding of and an ability to work with the group dynamics compassionately and respectfully, including when issues like questions and misunderstandings arise.

**Information & Digital Literacy. Authority and Value of Information; Digital Literacy; Information Structure; and Research as Inquiry**

*In this box, provide a narrative that explains how the proposed course addresses 3 of the components of digital literacy.*

Authority and Value of Information: Students are required to assess the reliability and usefulness of media, including (but not limited to) written source material, speeches, podcasts, and online lectures (for instance, TED Talks). In preparation for the final group presentation, each student creates an annotated bibliography to demonstrate evaluation of both SFCC library and outside sources based on currency, reliability, authority, accuracy, and purpose, as well as usefulness for their final project.

Digital Literacy and Information Structure: One or more research assignments and case studies require students to use the library's databases and other electronic resources, such as podcasts, e-books, online lectures, and/or resources like the Films on Demand database. Students are required to demonstrate research gathering skills to include (but not limited to) engaging with diverse library resources, seeking appropriate sources from outside the SFCC library resources, and requesting assistance from the SFCC librarians and/or the professor when the student needs direction. Students incorporate sources ethically into their own written work, documenting sources from all written and verbal assignments in correct MLA or APA style.

Research as Inquiry: The final assigned project requires that students engage in a process of inquiry that identifies a topic, researches and acknowledges the questions or issues surrounding that topic, and uses research to generate an overview, if not a reasonable solution or answer, to at least one of the topic's associated problems or questions, expressed in a small group environment. Students interact in assigned groups to analyze research and arguments so they may collectively create a final presentation that explicitly identifies and defines a pre-approved topic, analyzes perspectives and argument(s) surrounding that topic, and presents those perspectives and argument(s) in a respectful and academically focused college-level discussion, the dynamics of which are under specific scrutiny. In a reflective self-evaluation paper, students then analyze the small-group dynamics and communication that took place as they worked on this inquiry process.

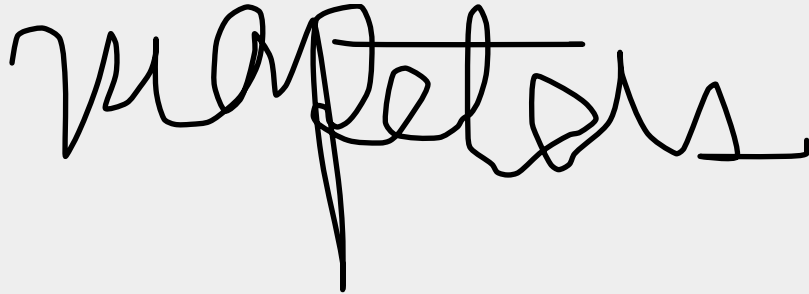


#### D. Assessment Plan (Must be on file with HED by August 1, 2019)

Link to Institution's General Education Assessment Plan

<https://www.sfcc.edu/54536-2/>

This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).



Date

Mar 29 2021

## Upload Assessment

Completed - Mar 29 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

**[COMM 2140 Small Group Communication Assessment Full Write Up \(002\)](#)**

Filename: COMM\_2140\_Small\_Group\_Communication\_8YFZgr4.pdf Size: 79.0 kB

## Upload Rubric

Incomplete

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

**Application: 0000001495**

James Scott - james.scott@nmt.edu

## Summary

**ID:** 0000001495

**Status:** Under Review

**Last submitted:** Mar 29 2021 05:22 PM (MDT)

## Application Form

**Completed** - Mar 29 2021

## Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

# Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

## Contact Information

Name	Mary Dezember
Title	Professor
Phone	575 - 835 - 5931
Email	<a href="mailto:dezember@nmt.edu">dezember@nmt.edu</a>

## Submitting Institution

Name of HEI	New Mexico Institute of Mining and Technology
Submitting Department	Department of Communication, Liberal Arts and Social Sciences

## Chief Academic Officer

Name	Dr. Steve Simpson
Email	<a href="mailto:steve.simpson@nmt.edu">steve.simpson@nmt.edu</a>

## Registrar

Name	James Scott
Email	<a href="mailto:james.scott@nmt.edu">james.scott@nmt.edu</a>

## Is this application for your entire system (ENMU, NMSU, & UNM)?

(No response)

## Institutional Course Information

Prefix	ARTS
Number	272
Title	Art History
Number of credits	3

## Was this course previously part of the New Mexico General Education curriculum?

Yes

## Co-requisite Course

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)

## New Mexico Common Course Information

Prefix	ARTH
Number	2210
Name	Art History

### A. Content Area and Essential Skills

#### To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Creative & Fine Arts - Communication, Critical Thinking, Personal & Social Responsibility

### B. Learning Outcomes

#### List all common course student learning outcomes for the course.

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

##### Student Learning Outcomes

1. Identify major artworks from a variety of regions and time periods. 2. Investigate the methods of producing various works of art. 3. Articulate an understanding and appreciation for the political, social, spiritual, intellectual, and cultural contexts of art forms. 4. Comprehend and apply terms, methodologies and concepts common to studies of art history, developing a language to further understanding of art. 5. Compare works across a range of historical styles and periods.

## Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

None

---

### C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

**Communication. Genre and Medium Awareness, Application and Versatility; Strategies for Understanding and Evaluating Messages; and Evaluation and Production of Arguments.**

*In this box, provide a narrative that explains how the proposed course addresses **all** of the components of communication.*

Focus on visual literacy: students learn to "read" images within the context of the corresponding Western Hemisphere historical, socio-political and cultural time – in both form and content. By using art analysis terms and concepts, and with a method similar to and based on the Feldman Method—specifically 1. Describe 2. Analyze 3. Interpret 4. Reflect--students synthesize purposes and meanings of visual art within the Classical Era and the Modern Era. Students demonstrate visual literacy through a variety of communication genres: written discussion via discussion boards, oral discussion in class, written essay, and image creation. Students communicate by creating images to show methods important to freedom of expression of three modern art styles (Cubism, Fauvism, Surrealism) and share images and comments on discussion board. Students learn to “read literally” and to “read metaphorically” by also seeing images as symbols. Students write a final comprehensive essay.

---

**Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.**

*In this box, provide a narrative that explains how the proposed course addresses **all** of the components of critical thinking.*

Students discover methods to determine if images reinforce the classical/traditional hegemony from the ancient Greeks to the present ingrained in our culture and that are supported by dogma or, instead, if the images question that conditioning, offer innovative thinking and awareness, and promote freedom of expression and modern ideas that can be supported through the scientific method of critical thinking, data and evidence. They must find evidence of the two modes of thinking (1. hegemonic 2. pluralistic) within a film about the US during the Great Depression and the controversial aspects of the WPA supporting the arts. Additionally, students learn to look for “deeper meanings” through symbols.

**Personal & Social Responsibility. *Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global***

*In this box, provide a narrative that explains how the proposed course addresses **2** of the components of personal & social responsibility.*

Emphasis on issues that affect us as citizens sharing one nation, and ultimately, as human beings sharing one planet. Some of these issues include: recognition of how the arts: 1. effect pluralism and equality; 2. address social issues and planetary concerns from war and global warming; 3. can be manipulated to become propaganda. Students write a final comprehensive essay that includes required discussion of the collaboration of art and science in recording and providing data of the melting of glaciers due to global warming.

---

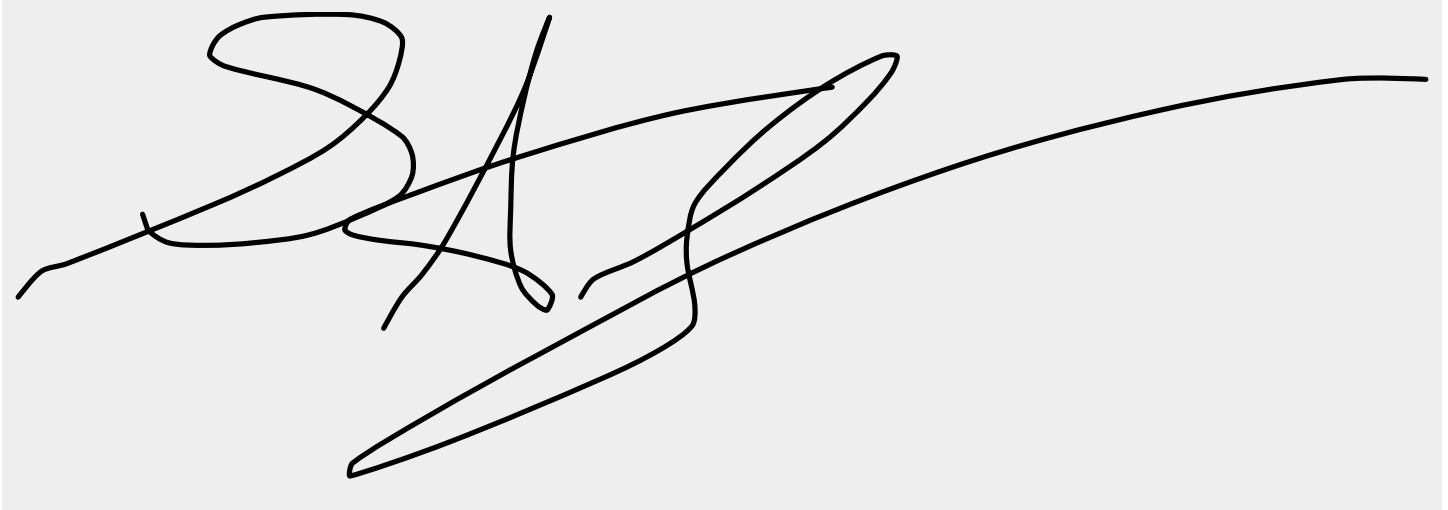
**D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

<https://www.nmt.edu/academicaffairs/assessment/gened.php>



This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).

A large, stylized handwritten signature in black ink on a light gray background. The signature is composed of several overlapping loops and a long, sweeping horizontal stroke that extends towards the right edge of the box.

**Date**

Mar 26 2021

## Upload Assessment

**Completed** - Mar 26 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

[New Mexico Tech](#)

**Filename:** New\_Mexico\_Tech.ARTH\_2210.sample.as\_G5GFVJr.pdf **Size:** 134.4 kB

## Upload Rubric

**Completed** - Mar 26 2021

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

[New Mexico Tech](#)

**Filename:** New\_Mexico\_Tech.ARTH2210.FCS.Sample.2.pdf **Size:** 233.9 kB

# Application: 0000001506

Robert Moore - Robert.Moore@rm01.enmuros.cc.nm.us  
NM General Education Curriculum

## Summary

**ID:** 0000001506

**Status:** Under Review

**Last submitted:** Mar 29 2021 09:40 AM (MDT)

## Application Form

**Completed** - Mar 29 2021

## Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course

# Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

## Contact Information

Name	Robert Moore
Title	Assistant VP
Phone	5756247001
Email	<a href="mailto:robert.moore@roswell.enmu.edu">robert.moore@roswell.enmu.edu</a>

## Submitting Institution

Name of HEI	ENMU-Roswell
Submitting Department	Business

## Chief Academic Officer

Name	Annemarie Oldfield
Email	<a href="mailto:annemarie.oldfield@roswell.enmu.edu">annemarie.oldfield@roswell.enmu.edu</a>

## Registrar

Name	Linda Neel
Email	<a href="mailto:linda.neel@roswell.enmu.edu">linda.neel@roswell.enmu.edu</a>

**Is this application for your entire system (ENMU, NMSU, & UNM)?**

No

**Institutional Course Information**

Prefix	BUSA
Number	1110
Title	Introduction to Business
Number of credits	3

**Was this course previously part of the New Mexico General Education curriculum?**

Yes

**Co-requisite Course**

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)

**New Mexico Common Course Information**

Prefix	BUSA
Number	1110
Name	Introduction to Business

**A. Content Area and Essential Skills**

## To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Social & Behavioral Sciences - Communication, Critical Thinking, Personal & Social Responsibility

## B. Learning Outcomes

**List all common course student learning outcomes for the course.**

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

Students should be able to:

1. Explain how business and entrepreneurship affect the quality of life and the world around us.
2. Explain the characteristics of the different forms of business ownership.
3. Perform basic stakeholder analysis concerning accountability, ethics and social responsibility of business.
4. Demonstrate knowledge of the various dimensions of the business environment including political and legal, socio-cultural, environmental, diversity, economic, technological, and global.
5. Describe the purpose and functions of finance, operations, marketing, management, accounting, and information systems.
6. Demonstrate basic skills such as use of common business terminology, information search skills, presentation and writing skills, and team skills.
7. Describe the purpose and content of a business plan.

## Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

NA

### C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

#### **Communication. Genre and Medium Awareness, Application and Versatility; Strategies for Understanding and Evaluating Messages; and Evaluation and Production of Arguments.**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of communication.*

##### Genre and Medium Awareness

The medium for instruction in this course is English. Students are required to utilize various genre, both digital and printed, for researching current events in business related fields. Representative texts from two written discourse genres are used: a textbook on business for undergraduate students and newspaper articles related to business ('The Wall Street Journal'). Selection of these texts is based on the importance of exposing students with professional or academic interests in business to these genres. To address "Genre and Medium Awareness," students work with online discussions of open-ended questions testing their communication and person-to-person interaction.

##### Application and Versatility

The ultimate goal of the discussion board assignment is to get students talking to each other. Discussion questions ask them to apply the ideas, concepts and tools learned in class to different situations or problems (Medium awareness, application and versatility; Understanding and evaluating messages; Valuation and production of arguments).

A learning management system (LMS) is used by the instructor of this course to create and deliver content, monitor student participation, and assess student performance. Learners interact with other students, with the instructor, and with content through integration of the online and face-to-face environments. Students use the interactive features of the LMS for threaded discussions, video conferencing, and discussion forums.

For this subcomponent "Application and Versatility" skills, with respect to acquiring better communications skills, students evaluate an argument through a critical thinking framework. Twice during the term students are required to search various mediums, digital and printed, for current business events. They are encouraged to search for non-headline situations that are interesting and have a practical impact on their lives. They then are directed to write a summary of the situation including their reflections and evaluation of the business concepts involved. They are to identify all the potential stakeholders and how the situation impacts them. Finally, students are asked to provide personal opinions and the basis for their conclusions. This paper is assessed on the student's understanding of the study, and their explanation of the business implications and situations involved.

Specific chapters discussed in this course cover a variety of communication demands in the management process, communicating with, and motivating employees, and communicating marketing information through various mediums. Students are required to participate in structured, graded discussions over these and other business topics.

#### Strategies for Understanding and Evaluating Messages

In order to understand and evaluate messages at this basic level of business, students must learn a substantial business vocabulary. This course gives students a fluency in fundamental business terms. Oral and written discussions help students build community; explore new ideas; apply core concepts; and gather evidence of understanding. To address "Strategies for Understanding and Evaluating Messages" students practice close readings of resources that have particular value in the context of the course.

#### Evaluation and Production of Arguments.

To argue well and do a good job at evaluating the arguments of others, students need to learn how to use language well. They cannot make sense of an argument without being able to make sense of the language, meaning, and purpose of what is being communicated in the first place. The readings described under the subcategory "Strategies for Understanding and Evaluating Messages," give students exposure to different viewpoints and ideas. Subsequently, students translate their learning into the

"Evaluation and Production of Arguments" by creating and refining their own arguments and adapting them to specific assignment guidelines.

---

***Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.***

*In this box, provide a narrative that explains how the proposed course addresses all of the components of critical thinking.*

The better students are at structuring their thoughts and ideas, the better they will be at expressing themselves. This is where skills with logic and critical reasoning come in. For example, many students find their knowledge is quite good, but they have difficulties in applying this knowledge to particular exam questions.

As described under the subheading "Application and Versatility," twice during the term students are required to search various mediums, digital and printed, for business current events. Then, using their critical thinking skills, they write a summary of the situation including their reflections and evaluation of the business concepts involved. They identify all the potential stakeholders, express how the situation impacts them, and provide personal conclusions and the basis for their conclusions.



**Personal & Social Responsibility. *Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global***

*In this box, provide a narrative that explains how the proposed course addresses 2 of the components of personal & social responsibility.*

This course weaves the essential skills associated with the Personal and Social Responsibility content area throughout the course. The social responsibility ethical framework suggests an individual has an obligation to work and cooperate with other individuals and organizations for the benefit of society at large. The following narrative explains how this course addresses two of the components of personal & social responsibility: “Sustainability and the Natural and Human Worlds” and “Collaboration Skills.”

#### **Sustainability and the Natural and Human Worlds**

Students study sustainability, giving them insights into aspects of the world from business to technology and the environment. In one assignment students are asked to provide an example of a common resource. They are asked to determine whether or not people will use the good too little or too much without government intervention and explain why.

#### **Collaboration Skills**

Trade, a form of collaboration between two societies, exists because different communities have a comparative advantage in the production of tradable goods. In one assignment students are asked to discuss what item that they regularly use was made in another country and who benefited from the purchase of this item – the student or the foreign producer? They are then asked to explain how they think trade between the United States and a poorer nation affects the workers in the poorer nation?

---

#### **D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

[https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan\\_ENMURoswell.pdf](https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan_ENMURoswell.pdf)

This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).

A handwritten signature in black ink, appearing to read "RM / AMO", is written on a light gray rectangular background.

**Date**

Mar 29 2021

## Upload Assessment

**Completed** - Mar 29 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

### [BUSA 1110 Assessment](#)

**Filename:** BUSA\_1110\_Assessment.pdf **Size:** 115.0 kB

## Upload Rubric

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

# Application: 0000001496

Michael Bilopavlovich - michaelb@mesalands.edu  
NM General Education Curriculum

### Summary

**ID:** 0000001496

**Status:** Under Review

**Last submitted:** Mar 26 2021 03:04 PM (MDT)

# Application Form

Completed - Mar 26 2021

## Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

### Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

### Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

### Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.

- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

### Contact Information

Name	Michael Bilopavlovich
Title	Faculty
Phone	575-461-4413 ext. 150
Email	<a href="mailto:michaelb@mesalands.edu">michaelb@mesalands.edu</a>

### Submitting Institution

Name of HEI	Mesalands Community College
Submitting Department	Academic Affairs

### Chief Academic Officer

Name	Natalie Gillard
Email	<a href="mailto:natalieg@mesalands.edu">natalieg@mesalands.edu</a>

### Registrar

Name	Forrest Kaatz
Email	<a href="mailto:forrestk@mesalands.edu">forrestk@mesalands.edu</a>

### Is this application for your entire system (ENMU, NMSU, & UNM)?

No

## Institutional Course Information

Prefix	ENG
Number	299
Title	Capstone Portfolio
Number of credits	3

## Was this course previously part of the New Mexico General Education curriculum?

Yes

## Co-requisite Course

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)

## New Mexico Common Course Information

Prefix	ENGL
Number	2999
Name	Capstone Portfolio Course

## A. Content Area and Essential Skills

## To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Communications - Communication, Critical Thinking, Information & Digital Literacy

## B. Learning Outcomes

### List all common course student learning outcomes for the course.

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

1. Identify artifacts that demonstrate attainment of the six general education competencies:
  - A. Writing
  - B. Oral communication
  - C. Information technology
  - D. Critical thinking
  - E. Scientific reasoning
  - F. Mathematical reasoning
2. Briefly describe each artifact in a reflective essay.
3. Describe in a reflective essay how each artifact successfully meets each criteria identified in the rubrics.
4. Summarize in a reflective essay how the general education competency will impact you in the future and why it is important to your future success.

## Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

N/A

---

### C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

***Communication. Genre and Medium Awareness, Application and Versatility; Strategies for Understanding and Evaluating Messages; and Evaluation and Production of Arguments.***

*In this box, provide a narrative that explains how the proposed course addresses all of the components of communication.*

Students will engage in reading, writing, analysis, research, and discussion activities in which they identify, evaluate and respond to diverse rhetorical situations. Students will use diverse and appropriate communication strategies in various mediums. Students will pursue various reading strategies to seek out, evaluate, and support or rebut key points in diverse example texts. Students will practice applying both theoretical and cultural templates to contextualize their analysis and their written responses. Students will formulate hypotheses, opinions, and position statements – and communicate their conclusions using appropriate rhetorical forms. They will evaluate sources and evidence to support their theses through organized presentation of arguments and appropriately cited references using a designated citation system such as MLA or APA.

Written Communications skills will be assessed through multiple diverse composition assignments, including at least 4 completed and revised formal essays which integrate reading, research, evaluation and analysis, and quotation and citation of sources, as well as diverse homework and reading response assignments requiring different reading and reasoning strategies. Students will receive both formative and summative feedback which they will be expected to incorporate into their revisions. Effective use of digital media and appropriate document formatting will also be assessed.

Oral Communication skills will be assessed through documented participation in class discussion and oral argument (for in-person courses), as well as ability to give and follow instructions and collaborate with other students.



***Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.***

*In this box, provide a narrative that explains how the proposed course addresses all of the components of critical thinking.*

Students will define problems, evaluate issues, and formulate research questions to guide their inquiries. They will complete reading and research tasks to collect, qualify and evaluate sources and data for credibility, relevance, and possible bias. Students will cite their sources in a systematic and respectful manner. Students will consider rhetorical, historical, and cultural contexts as they develop and refine their theses and ideas, and they will effectively communicate their conclusions and their underlying reasoning through written, oral or digital presentations.

Critical thinking will be assessed in the formation and articulation of ideas within students' essay projects as well as in written and oral responses to assigned readings and homework. Students will demonstrate the ability to analyze a text and identify various features, such as rhetorical context, intended audience, credibility and bias, and rhetorical modes.

**Information & Digital Literacy. Authority and Value of Information; Digital Literacy; Information Structure; and Research as Inquiry**

*In this box, provide a narrative that explains how the proposed course addresses **3** of the components of digital literacy.*

Students will acquire, assess, and communicate information across different mediums using digital tools. They will recognize the hazards and advantages of communicating in an integrated digital environment. Students will develop and pursue self-directed research which generates problem solutions or otherwise illuminates the complexity of issues and questions. They will document and share their inquiries using appropriate formats, tools, and digital presentation applications.

Information and digital literacy will be assessed throughout the semester as students utilize digital resources and word processing technology to research, compose, revise, format, and transmit their various assignments. Students will demonstrate competence utilizing research databases and other information tools to gather, organize and evaluate information, as well as their ability to navigate online learning platforms (where applicable) and standard electronic communications tools such as email, online chats, discussion forums, and digital meeting spaces such as Zoom or Skype.

**D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

<https://www.mesalands.edu/wp-content/uploads/2020/01/SLAC-Annual-Report-2018-19-Final.pdf>

**This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).**

NG

MB

## Date

Mar 26 2021

## Upload Assessment

**Completed** - Mar 26 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

### [ENG 299 Sample Assignment Scientific Reasoning](#)

**Filename:** ENG\_299\_Sample\_Assignment\_Scientifi\_R6A0q6n.pdf **Size:** 228.3 kB

## Upload Rubric

**Completed** - Mar 26 2021

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

### [Scientific Reasoning Rubric](#)

**Filename:** Scientific\_Reasoning\_Rubric.pdf **Size:** 27.8 kB

## Application: 0000001281

Julia Deisler - julia.deisler@sfcc.edu  
NM General Education Curriculum

### Summary

**ID:** 0000001281

**Status:** Under Review

**Last submitted:** Mar 28 2021 04:41 PM (MDT)

## Application Form

**Completed** - Mar 22 2021

## Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of

New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

### Contact Information

Name	Emily Stern
Title	Assistant Professor
Phone	5054281467
Email	<a href="mailto:emily.stern@sfcc.edu">emily.stern@sfcc.edu</a>

### Submitting Institution

Name of HEI	Santa Fe Community Colleg
Submitting Department	Humanities and Social Sciences

### Chief Academic Officer

Name	Margaret Peters
Email	<a href="mailto:margaret.peters@sfcc.edu">margaret.peters@sfcc.edu</a>

### Registrar

Name	Kathleen Sena
Email	<a href="mailto:kathleen.sena@sfcc.edu">kathleen.sena@sfcc.edu</a>

### Is this application for your entire system (ENMU, NMSU, & UNM)?

No

### Institutional Course Information

Prefix	HUMN
Number	1150
Title	Introduction to Gender and Culture
Number of credits	3

### Was this course previously part of the New Mexico General Education curriculum?

Yes

### Co-requisite Course

Prefix	
Number	
Title (if applicable)	(No response)

### New Mexico Common Course Information

Prefix	HUMN
Number	1150
Name	Introduction to Culture and Gender Studies

### A. Content Area and Essential Skills

#### To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Humanities - Information & Digital Literacy, Critical Thinking, Personal & Social Responsibility

## B. Learning Outcomes

---

**List all common course student learning outcomes for the course.**

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

There are no learning outcomes listed in the state catalog although this course was given a common course number.

---

## Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

1. Demonstrate knowledge of the various definitions of both culture and gender
2. Describe the interdisciplinary nature of culture and gender studies
3. Describe and discuss the influence of gender and culture in society
4. Critically evaluate the social, political, and historical construction of gender and culture

---

## C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

**Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and**

## **Reasoning/Conclusion.**

*In this box, provide a narrative that explains how the proposed course addresses **all** of the components of critical thinking.*

Problem Setting: This component skill is assessed through the thesis statement for the term paper/project, which asks students to think critically about how gender and culture inform and impact individual and collective experiences, perceptions, and choices. This final Process and Reflection Paper & Annotated Works Cited asks students to discuss their understanding and experience of gender and culture, both respectively and combined, as a lens through which to better understand and think critically about how gender and culture inform and impact individual and collective experiences, perceptions, and choices, drawing from materials studied throughout the semester. Additionally, the class asks students ongoingly to evaluate the social, political, and historical construction of gender and culture in the course of examining questions such as these: What perceptions and definitions have changed or remained the same? How are culture and gender variously defined, and what are the effects of those definitions? How would you describe the interdisciplinary nature of culture and gender studies? What is the influence of gender and culture in society?

Evidence Acquisition. Both in the term paper and in a series of short assignments students are asked to draw research material from a wide variety of sources, including, for example, the SFCC Social Justice Library Guide, SFCC Women in Transition Library Guide, New Mexico Transgender Resource Center, Infographics from the Trans Student Educational Resources site, a locally made video in English and Spanish called I Am Me, [NewMexicoWomen.org](http://NewMexicoWomen.org) research and infographics, and articles and research such as "Breaking the Cycle of Racism in the Classroom: Critical Race Reflections" from Future Teachers of Color and "Imagineering a New Mexican American Girl: Josefina Montoya (1824)" by Dr. Patricia Marina Trujillo. For the shorter assignments, students participate in Weekly Culture and Gender Research and Synthesis Discussions and create a Culture and Gender Digital Journal, and use these materials to create annotated bibliographies to prepare them for researching their term paper. The research paper requires students to use diverse sources (evidence), including primary and secondary sources, and with diverse points of view and perspectives.

Evidence Evaluation: For the graded short assignments students gain practice in evaluating their gathered evidence from different types of sources via examining sources for point of view, evidence of bias, and purpose, as well as practicing more sophisticated analysis. The research paper demonstrates the student's ability to effectively explain ideas and use multiple points of view and experiences across a



variety of sources (including personal experiences) while also applying different lenses (points of view) to examine culture and gender, including an intersectional lens. The rubric includes an evaluation of evidence for credibility (e.g., bias, reliability, validity), and also for its relevance—does the evidence support the analysis, does the analysis also reflect the evidence, was the evidence well understood and accurate, and was the evidence reflective of diverse perspectives?

researching their term paper. The research paper requires students to use diverse sources (evidence), including primary and secondary sources, and with diverse points of view and perspectives.

Reasoning/Conclusion: Students state their understanding of and conclusive findings about student-selected and assigned readings, films, data, and artifacts during weekly synthesis discussions and short assignments, all of which become resources for the final term paper. Furthermore, students develop questions and are asked to arrive at conclusions after evaluating evidence that they believe best addresses their questions.

**Personal & Social Responsibility. *Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global***

*In this box, provide a narrative that explains how the proposed course addresses 2 of the components of personal & social responsibility.*

Intercultural reasoning and intercultural competence: This course is an interdisciplinary introduction to culture and gender by drawing upon historical contexts, relations, data, literature, and stories. The course will explore historical to contemporary representations of culture and gender and use a variety of lenses to analyze their relationships and implications, including local, intersectional, and pop culture. The course encourages intercultural reasoning and intercultural competence by examining various cultural contributions and representations and where, how, and why they were and are situated.

Civic discourse, civic knowledge and engagement - local and global: Based on careful reading of assigned texts and critical reasoning, through class discussions, civic responsibility is addressed across time and culture. In particular, the course's review of culture and gender provides the basis upon which student develop stronger civic knowledge of their own and/or surrounding communicates. Moreover, it opens up civic discourse while students explore misunderstandings, myths, and stereotypes when challenged with multiple truths and evidence-based knowledge.

During such discourse, in all weekly synthesis discussions, culture and gender digital journal, and final term paper, students explore questions, such as:

- Which ideas, values, messages, victories, representations, beliefs, traditions, and ways of thinking about culture and gender do you want to perpetuate in your profession/area of study, family, communities, and the world?
- Which ideas, values, messages, victories, representations, beliefs, traditions, and ways of thinking about culture and gender do you want to reimagine, reorganize, reclaim, change the story, or obliterate all together?
- As students, you are and will continue to contribute to the definitions, values, and representations of gender and culture, and a degree gives you even more access and influence; what do you feel your responsibility is in the shaping of ideas, values, and representations of culture and gender?

Students Do:

- Annotated research and evaluation of sources.
- Write, present, and reflect on analysis and synthesis of shared and cumulative information, using multiple critical lenses across a diversity of representations.
- Regularly explore and apply intercultural and ethical reasoning through collaborative evaluation and analysis, including comparing and contrasting and values-sharing, about relevant and provocative culture and gender issues and opportunities, using information researched and supplied by students.

### **Information & Digital Literacy. *Authority and Value of Information; Digital Literacy; Information Structure; and Research as Inquiry***

*In this box, provide a narrative that explains how the proposed course addresses **3** of the components of digital literacy.*

**Authority and Value of Information:** The value, authority, bias, and reliability of information is assessed through weekly Culture and Gender Synthesis Discussions that are based on a critical reading of student-selected, credible materials as well as of assigned materials. The student's ability to evaluate the authority and value of information is also demonstrated through selecting, using, synthesizing, and citing materials from these discussions as resources for their final term paper.

**Digital Literacy:** Digital literacy is addressed throughout the course. For use in the final term paper, students curate a Culture and Gender Digital Journal. Further, students demonstrate familiarity with

word-processing programs and, in some cases, presentation software for writing assignments. Additionally, students are required to demonstrate the ability to navigate the technological tools frequently used in college settings, such as Canvas, the online library resources offered at the college, and commonly used search engines.

Information Structure: Students are taught to identify and to use credible sources versus non-credible Internet sources, and credible, accurate representations and histories of culture and gender. Through discussion and use in class assignments, students become familiar with the requirements for properly citing a range of source types, including personal interviews and oral histories. Additionally, students are given opportunities to expand commonly distorted or incomplete histories and definitions through further research,

Research as Inquiry: The final term paper, weekly synthesis discussions, and digital journal demonstrate students' abilities to gather information from credible sources, such as databases and peer-reviewed academic journals, which must properly be cited. Additionally, students gather and use local, credible data designed by student-representative groups and communities, personal interviews, and oral storytelling. Students develop their thesis through a scaffolded inquiry process of asking a series of questions with each question based on what students have gleaned from the research thus far. Those questions and subsequent research then help students define their thesis.

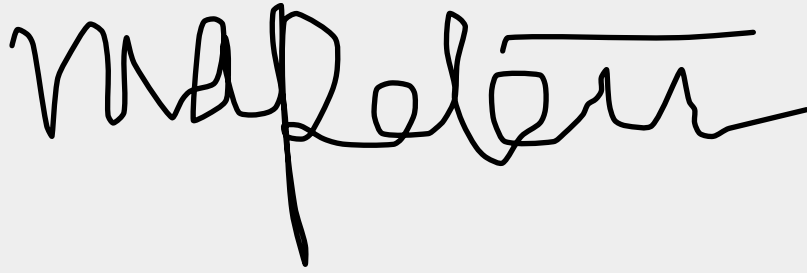
---

#### **D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

<https://www.sfcc.edu/54536-2/>

This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).



**Date**

Mar 21 2021

## Upload Assessment

**Completed** - Mar 21 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

### [SUM 2020 HUMN 1150 GEN ED ASSIGNMENT](#)

**Filename:** SUM\_2020\_HUMN\_1150\_GEN\_ED\_ASSIGNMENT.pdf **Size:** 151.1 kB

## Upload Rubric

**Completed** - Mar 21 2021

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

### [Rubric 1150 Culture Gender \(1\) \(1\)\[1\]](#)

**Filename:** Rubric\_1150\_Culture\_Gender\_1\_11.pdf **Size:** 212.4 kB

# Application: 0000001533

James Scott - james.scott@nmt.edu  
NM General Education Curriculum

## Summary

**ID:** 0000001533

**Status:** Under Review

**Last submitted:** Mar 29 2021 07:13 PM (MDT)

# Application Form

Completed - Mar 29 2021

## Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

### Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

### Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

### Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.

- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

### Contact Information

Name	Stewart Thompson
Title	Asst. Professor
Phone	575 - 835 - 5009
Email	<a href="mailto:stewart.thompson@nmt.edu">stewart.thompson@nmt.edu</a>

### Submitting Institution

Name of HEI	New Mexico Institute of Mining and Technology
Submitting Department	Department of Communication, Liberal arts and Social Sciences

### Chief Academic Officer

Name	Dr. Steve Simpson
Email	<a href="mailto:steve.simpson@nmt.edu">steve.simpson@nmt.edu</a>

### Registrar

Name	James Scott
Email	<a href="mailto:james.scott@nmt.edu">james.scott@nmt.edu</a>

**Is this application for your entire system (ENMU, NMSU, & UNM)?**

(No response)

**Institutional Course Information**

Prefix	PSYC
Number	212
Title	Drug and Behavior
Number of credits	3

**Was this course previously part of the New Mexico General Education curriculum?**

No

**Co-requisite Course**

Prefix	PSYC
Number	1110
Title (if applicable)	General Psychology

**New Mexico Common Course Information**

Prefix	PSYC
Number	2310
Name	Drug and Behavior

**A. Content Area and Essential Skills**

## To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Social & Behavioral Sciences - Communication, Critical Thinking, Personal & Social Responsibility

## B. Learning Outcomes

**List all common course student learning outcomes for the course.**

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

PSYC 2310. Drugs and Behavior

Student Learning Outcomes:

1. Present a classification of drugs that includes the type, effect, legal status, and addiction potential.
2. Explain how drugs affect the brain and behaviors in humans.
3. Distinguish between licit and illicit drugs.
4. Explain which drugs have high potential for dependency.
5. Define dependency and understand the process of how individuals develop drug dependencies.
6. Explain principles of prevention and treatment of drug dependencies.
7. Explain how some people may have a predisposition to become or not become drug dependent.
8. Explain how the research methods in psychopharmacology inform current methods of treatment.



## Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

All sections have identical learning outcomes:

1. Present a classification of drugs that includes the type, effect, legal status, and addiction potential.
2. Explain how drugs affect the brain and behaviors in humans.
3. Distinguish between licit and illicit drugs.
4. Explain which drugs have high potential for dependency.
5. Define dependency and understand the process of how individuals develop drug dependencies.
6. Explain principles of prevention and treatment of drug dependencies.
7. Explain how some people may have a predisposition to become or not become drug dependent.
8. Explain how the research methods in psychopharmacology inform current methods of treatment.

---

### C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

**Communication. Genre and Medium Awareness, Application and Versatility; Strategies for Understanding and Evaluating Messages; and Evaluation and Production of Arguments.**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of communication.*

Genre and Medium Awareness: This course uses traditional written sources such as textbooks and peer reviewed papers, public health pamphlets, and factual documentaries for material. One focus of the course is to have students consider the source, and then judge the validity and reliability of data. For example, a peer reviewed research paper can be better as a source for factual content, but a personal account in a documentary can be more effective at giving a student an appreciation of the negative consequences of addiction. This subject is particularly effective for teaching critical assessment of statements because drug-related data is often manipulated to fit specific agendas: pro-marijuana sources claim many unproven health benefits and minimize health costs, while anti-marijuana sources cite the potential for marijuana as a gateway drug while ignoring a similar potential for alcohol and tobacco.

Application and Versatility. Students engage in discussions in class, and are assigned written and oral presentations for assessment. Although the best approach to these different mediums is not formally taught in this class, feedback is given on effective presentation methods for both written and oral assignments, which builds on previous training so that students can improve their comfort and competence with different mediums.

Strategies for Understanding and Evaluating Messages: The failings of policy communication are discussed in class and addressed by students in the written and oral presentations. For example, the "Just say no" type of campaign to reduce drug use fails because it portrays a worst case scenario as typical and the target audience will know from the experience of their peers that this message is false.

Evaluation and Production of Arguments: In this course there is particular emphasis on evidence based best practice and harm reduction. By engaging in comparison of the effectiveness of different approaches to drug abuse and addiction management, students gain experience in evaluation of arguments. By then applying this critical evidence based approach to their individual written reports and group oral presentations, students gain experience in production of convincing arguments.

***Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.***

*In this box, provide a narrative that explains how the proposed course addresses all of the components of critical thinking.*

Problem Setting: In most countries there is considerable disparity between evidence for best-practices and actual government policies for the treatment of drug abuse and addiction. The reasons for this disparity, the problems this causes, and potential solutions are the focus of this course

Evidence Acquisition: Students use documentaries that compare the perspective of drug users, medical practitioners, social workers, policy makers and law enforcement, and conduct their own research of peer reviewed literature and non-peer reviewed sources.

Evidence Evaluation: In this process students are challenged to think critically about the various information sources.

Reasoning/Conclusion: Students then draw their own conclusions from data and are expected to justify that with sound reasoning, which is formally assessed through written assignments and an oral presentation.

***Personal & Social Responsibility. Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global***

*In this box, provide a narrative that explains how the proposed course addresses 2 of the components of personal & social responsibility.*

Intercultural reasoning and intercultural competence: The sources and discussion of drug use and the problems associated with drug use are by necessity, cross cultural. This subject therefore provides an excellent forum for discussion of National and international cultural factors. Within the USA, marijuana use is similar in African American and non-Hispanic white people, but the arrest and incarceration rates show a considerable racial disparity. The International influence of USA drug use then impacts organized

crime and violence in supplier countries. Finally, comparison of approaches to drug problem management in other countries shows what works or doesn't work elsewhere, but requires students to think about cultural variables if such approaches were tried in the USA, such as the need to first myth bust the 'war on drugs' approach so that policy makers can enact more effective policies without fear of losing votes.

**Sustainability and the natural and human worlds:** Sustainable practices are indirectly discussed in this course. For example, drug enforcement, treatment and violence all have considerable human and natural resource impact which could be ameliorated by better policy and management of the drug problem.

**Ethical reasoning:** A major focus of this class is to have students think about the ethical treatment of drug users and addicts. Material in class and for coursework shows students the variety of people with drug problems may start by self-medicating chronic pain, a psychiatric condition, or psychological trauma. Discussion topics include the ethics of criminalization and incarceration of non-violent offenders, racial disparities in arrests and convictions for drug offences, the impact of US drug demand on government stability and violence in supplier countries, the extensive use of sub-optimal treatments, and the exploitation of addicts by some treatment programs.

**Collaboration skills, teamwork and value systems:** Students are required to work in groups to complete an oral presentation, and assessment includes submission of a work division plan to ensure all team members contribute fairly.

**Civic discourse, civic knowledge and engagement – local and global:** Students watch and report on a selection of documentaries on the impact of drug abuse and addiction, as well as different approaches to management of drug abuse and addiction in different countries. Students also complete a literature based research essay on the impact of a specific drug on individuals and society. Along with instructor-led discussions, this challenges students to think about: the harm to self and others if they abuse drugs or become addicts; and how their actions as clinicians/scientists/policy makers could reduce or increase the harm caused by the disparity between evidence based best practice and government policy for illegal drug use. For example, how they would craft and enact policy to maximize harm reduction. Formal assessment of awareness of personal and social responsibility is through three written assignments and an oral presentation.

#### D. Assessment Plan (Must be on file with HED by August 1, 2019)

Link to Institution's General Education Assessment Plan

<https://www.nmt.edu/academicaffairs/assessment/gened.php>

This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).

A handwritten signature in black ink, appearing to read "S. A. [unclear]", is displayed on a light gray background.

Date

Mar 29 2021

## Upload Assessment

Completed - Mar 29 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

[PSYC-2310 essay assignment](#)

Filename: PSYC-2310\_essay\_assignment.pdf Size: 73.5 kB

## Upload Rubric

Incomplete

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

## Application: 0000001500

Julia Deisler - julia.deisler@sfcc.edu  
NM General Education Curriculum

### Summary

**ID:** 0000001500

**Status:** Under Review

**Last submitted:** Mar 29 2021 01:00 PM (MDT)

## Application Form

**Completed** - Mar 29 2021

## Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

### Contact Information

Name	Elizabeth Towers
Title	Adjunct faculty, art history
Phone	505 428 1731
Email	<a href="mailto:elizabeth.towers@sfcc.edu">elizabeth.towers@sfcc.edu</a>

### Submitting Institution

Name of HEI	Santa Fe Community Colleg
Submitting Department	Arts and Design

### Chief Academic Officer

Name	Margaret Peters
Email	<a href="mailto:margaret.peters@sfcc.edu">margaret.peters@sfcc.edu</a>

## Registrar

Name	Kathleen Sena
Email	<a href="mailto:kathleen.sena@sfcc.edu">kathleen.sena@sfcc.edu</a>

### Is this application for your entire system (ENMU, NMSU, & UNM)?

No

## Institutional Course Information

Prefix	AHST
Number	2110
Title	History of Art I
Number of credits	3

### Was this course previously part of the New Mexico General Education curriculum?

Yes

## Co-requisite Course

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)



## New Mexico Common Course Information

Prefix	AHST
Number	2110
Name	History of Art I

### A. Content Area and Essential Skills

#### To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Humanities - Information & Digital Literacy, Critical Thinking, Personal & Social Responsibility

### B. Learning Outcomes

#### List all common course student learning outcomes for the course.

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

1. Identify major artworks from a variety of regions and time periods. 2. Investigate the methods of producing various works of art. 3. Articulate an understanding and appreciation for the political, social, spiritual, intellectual, and cultural contexts of art forms. 4. Comprehend and apply terms, methodologies and concepts common to studies of art history, developing a language to further understanding of art. 5. Compare works across a range of historical styles and periods. 6. Analyze works of art through writing and discussion.

#### Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

The study of art history by its interdisciplinary nature is an exercise in developing the essential skills of critical thinking, information and digital literacy, and personal and social responsibility. In this course, the Common Course SLOs are a set of actions that directly engage students in these essential skills. For example, “Articulate an understanding and appreciation for the political, social, spiritual, intellectual, and cultural contexts of art forms” (SLO 2) asks the student to utilize all of the components of Critical Thinking Skills. Students develop these essential skills alongside the course learning outcomes through a combination of short essay assignments, group discussions, a research-based paper and essay-based exams.

**Problem Setting:** Problem Setting and Evidence Acquisition are closely linked to each other and feed into one another. Through comparative study, research and use of visual literacy skills, students develop individualized questions that lead them to a well-informed set of positions to address their problem/thesis. Students are guided in this process (through faculty feedback) and practice this combination of component skills in a variety of ways in the course. For example, the Final Exam Study Guide provides parameters of study for the students to set the problem and acquire evidence for the exam. In order to successfully complete the exam, they work with the method of inquiry demonstrated in the course, asking themselves questions such as “What does the subject of the work of art tell me about the culture? How do I relate what I see in the sculpture to the technique and medium used to create it? What is the function of this work of art in society?” Please see AHST 2110 Final Exam attached.

**Evidence Acquisition:** This essential skill is a cornerstone of the course and students gain competency in acquiring evidence by drawing from a wide variety of sources: course reading, additional primary sources, documentary films, video demonstrations of techniques, online museum resources, etc. In this course, alongside the standard academic means to identify and gather information, visual literacy is developed and evaluated as a tandem skill necessary to address the problem. Students practice this visual method of inquiry through formal and iconographic analysis in four assignments, four group discussions, three exams and the research-based paper (See below). Students are asked to gather scholarly evidence to address questions posed, from their course readings, class lectures and discussions. Evidence Acquisition and Evaluation are evaluated in the rubric line “Critical Content.”

**Evidence Evaluation:** This component skill is closely tied to Information and Digital Literacy: Authority and Value of Information with the additional critical thinking requirement that the student “evaluate” evidence for credibility, truth and relevance. Students are consistently challenged to critically evaluate

sources of information, in particular for credibility and relevance to the problem/thesis. In exams, students evaluate key elements of an image in order to determine its origin in time, culture and content. (Please see attached AHST 2110 Final Exam.) Several short writing assignments also give students practice in evaluating said evidence before applying this skill toward the research-based paper. For this paper, Art and Death in Late Antiquity, students are required to critically read a chapter from Imperial Rome and Christian Triumph, 1998 by Jas Elsner and evaluate the thesis: “Roman sarcophagi and catacombs offer us an insight into the creation of new identities and belief systems from Imperial to Early Christian Rome.” In the paper, students are required to thoughtfully discuss three themes from the reading and artworks of their choosing, in their evaluation of Elsner’s ideas.

Reasoning/Conclusion: Students learn to use this method in their own essays from the commentary by art historians, reasoning by other students of art history and faculty feedback. On an ongoing basis, students are asked to create a well-reasoned argument in relation to the evidence they gathered and evaluated for the purpose of addressing their question/problem. (See AHST 2110 Final Exam: Part III for an excellent example.) This essential skill is evaluated under the rubric “Synthesis/Engagement” on writing assignments and essay-based exam questions.

### C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

**Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of critical thinking.*

The study of art history by its interdisciplinary nature is an exercise in developing the essential skills of critical thinking, information and digital literacy, and personal and social responsibility. In this course, the Common Course SLOs are a set of actions that directly engage students in these essential skills. For example, “Articulate an understanding and appreciation for the political, social, spiritual, intellectual, and cultural contexts of art forms” (SLO 2) asks the student to utilize all of the components of Critical Thinking Skills. Students develop these essential skills alongside the course learning outcomes through a combination of short essay assignments, group discussions, a research-based paper and essay-based exams.

**Problem Setting:** Problem Setting and Evidence Acquisition are closely linked to each other and feed into one another. Through comparative study, research and use of visual literacy skills, students develop individualized questions that lead them to a well-informed set of positions to address their problem/thesis. Students are guided in this process (through faculty feedback) and practice this combination of component skills in a variety of ways in the course. For example, the Final Exam Study Guide provides parameters of study for the students to set the problem and acquire evidence for the exam. In order to successfully complete the exam, they work with the method of inquiry demonstrated in the course, asking themselves questions such as “What does the subject of the work of art tell me about the culture? How do I relate what I see in the sculpture to the technique and medium used to create it? What is the function of this work of art in society?” Please see AHST 2110 Final Exam attached.

**Evidence Acquisition:** This essential skill is a cornerstone of the course and students gain competency in acquiring evidence by drawing from a wide variety of sources: course reading, additional primary sources, documentary films, video demonstrations of techniques, online museum resources, etc. In this course, alongside the standard academic means to identify and gather information, visual literacy is developed and evaluated as a tandem skill necessary to address the problem. Students practice this visual method of inquiry through formal and iconographic analysis in four assignments, four group discussions, three exams and the research-based paper (See below). Students are asked to gather scholarly evidence to address questions posed, from their course readings, class lectures and discussions. Evidence Acquisition and Evaluation are evaluated in the rubric line “Critical Content.”

**Evidence Evaluation:** This component skill is closely tied to Information and Digital Literacy: Authority and Value of Information with the additional critical thinking requirement that the student “evaluate” evidence for credibility, truth and relevance. Students are consistently challenged to critically evaluate sources of information, in particular for credibility and relevance to the problem/thesis. In exams, students evaluate key elements of an image in order to determine its origin in time, culture and content.

(Please see attached AHST 2110 Final Exam.) Several short writing assignments also give students practice in evaluating said evidence before applying this skill toward the research-based paper. For this paper, *Art and Death in Late Antiquity*, students are required to critically read a chapter from *Imperial Rome and Christian Triumph*, 1998 by Jas Elsner and evaluate the thesis: “Roman sarcophagi and catacombs offer us an insight into the creation of new identities and belief systems from Imperial to Early Christian Rome.” In the paper, students are required to thoughtfully discuss three themes from the reading and artworks of their choosing, in their evaluation of Elsner’s ideas.

Reasoning/Conclusion: Students learn to use this method in their own essays from the commentary by art historians, reasoning by other students of art history and faculty feedback. On an ongoing basis, students are asked to create a well-reasoned argument in relation to the evidence they gathered and evaluated for the purpose of addressing their question/problem. (See AHST 2110 Final Exam: Part III for an excellent example.) This essential skill is evaluated under the rubric “Synthesis/Engagement” on writing assignments and essay-based exam questions.

**Personal & Social Responsibility. *Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global***

*In this box, provide a narrative that explains how the proposed course addresses 2 of the components of personal & social responsibility.*

Intercultural reasoning and intercultural competence: Students study the arts of multiple civilizations from the prehistoric period through the 14th century, including but not limited to the diverse regions of the Near East, Europe and the Aegean. The course emphasizes the artistic and cultural influences of a civilization upon another civilization, i.e., Egyptian art on the development of Greek art, from which students gain an understanding of the historical interdependence of cultural expression. In practice and with many opportunities to practice this skill, students compare and contrast works of art in writing and group discussions. This component skill is linked to the essential skill of civic discourse, knowledge and engagement.

Civic discourse, civic knowledge and engagement – local and global: This component skill is one the most tangible essential skills developed in the course and realized by the student. Through the contextual study of visual culture, students examine the political, social, spiritual, intellectual and cultural make-up of society and its effects upon the nature and production of art. For example, in group discussions of Apollo of Veii and Augustus of Prima Porta, from their respective Etruscan and Roman cultures, students compare and contrast these two works, asking themselves and each other questions such as “What are the uniquely Etruscan and Roman artistic qualities of each work? How do they relate to one another in cultural ways? What are the Greek influences they share? Is there a synthesis of perspectives on god-like qualities?” Students are exposed to multiple cultural systems and perspectives, which expands the possibility for students to create a dialog between the past and the present, places and people. This essential skill is evaluated under the rubric “Synthesis/Engagement.”

**Information & Digital Literacy. *Authority and Value of Information; Digital Literacy; Information Structure; and Research as Inquiry***

*In this box, provide a narrative that explains how the proposed course addresses **3** of the components of digital literacy.*

Authority and Value of Information: This essential skill is aligned with academic honesty in the ways students recognize the authorship of information (others and their own) and discern the value and validity of information and information systems for research-based inquiry. Students develop this skill in an ongoing and individualized basis through written work that requires evidence of reading the course materials and, when utilizing other sources, citing of authorship with proper citations.

Information Structures: Students are introduced to this skill through evidence evaluation and learn throughout the course ways in which to select, organize and share information they have gathered. Students are guided toward appropriate information structures for art historical inquiry in all assignments. This essential skill is assessed on writing assignments and exams in the rubric "Critical Content."

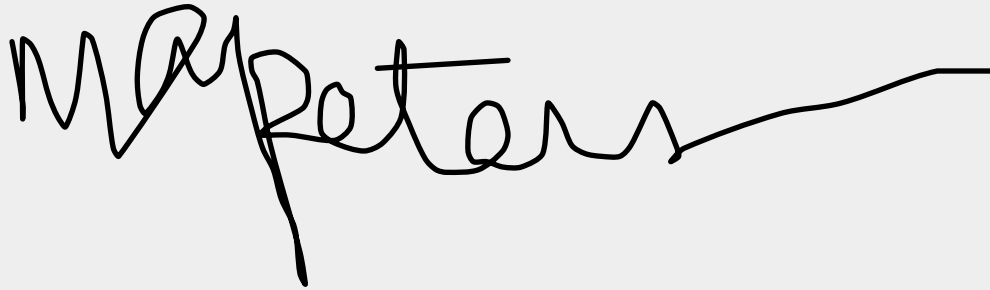
Research as Inquiry: This component skill is aligned with Critical Thinking Skills, in particular Evidence Acquisition and Evidence Evaluation, in that the gathering of information from a range of perspectives and sources is essential to the process of inquiry. Students are asked to be curious in their research and develop questions out of other questions that generate substantive ideas toward a reasonable explanation or multiple explanations. For example on exams (and study guides), students are posed with this question: "How might the subject exemplify beliefs or themes within the culture?" (Please see AHST 2110 Final Exam attached.) Students begin to ask themselves questions such as "What kind of cultural beliefs are represented in this work of art? Does this subject appear in other works we've studied? Is this a theme and what does it mean?" Students learn to use this open-ended method of inquiry demonstrated in lectures, discussions and all coursework.

#### **D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

<https://www.sfcc.edu/54536-2/>

**This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).**

A handwritten signature in black ink, appearing to read "M. Poter", is displayed on a light gray background.

**Date**

Mar 28 2021

### **Upload Assessment**

**Completed** - Mar 29 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

**[SFCC\\_F19\\_AHST2110\\_FinalExam](#)**

**Filename:** SFCC\_F19\_AHST2110\_FinalExam.Towers.pdf **Size:** 1.5 MB

### **Upload Rubric**

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

**Application: 0000001446**

Michael Bilopavlovich - michaelb@mesalands.edu



## Summary

**ID:** 0000001446

**Status:** Under Review

**Last submitted:** Mar 18 2021 05:04 PM (MDT)

## Application Form

**Completed** - Mar 18 2021

## Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

# Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

## Contact Information

Name	Michael Bilopavlovich
Title	Faculty
Phone	5754614413 ext. 150
Email	<a href="mailto:michaelb@mesalands.edu">michaelb@mesalands.edu</a>

## Submitting Institution

Name of HEI	Mesalands Community College
Submitting Department	Academic Affairs

## Chief Academic Officer

Name	Natalie Gillard
Email	<a href="mailto:natalieg@mesalands.edu">natalieg@mesalands.edu</a>

## Registrar

Name	Forrest Kaatz
Email	<a href="mailto:forrestk@mesalands.edu">forrestk@mesalands.edu</a>

**Is this application for your entire system (ENMU, NMSU, & UNM)?**

No

**Institutional Course Information**

Prefix	(No response)
Number	(No response)
Title	(No response)
Number of credits	(No response)

**Was this course previously part of the New Mexico General Education curriculum?**

No

**Co-requisite Course**

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)

**New Mexico Common Course Information**

Prefix	ENGL
Number	2650
Name	World Literature I

**A. Content Area and Essential Skills**

## To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Humanities - Information & Digital Literacy, Critical Thinking, Personal & Social Responsibility

## B. Learning Outcomes

### List all common course student learning outcomes for the course.

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

1. Identify and comprehend key authors and literary works from ancient periods to the Enlightenment.
2. Understand each text's historical and cultural context.
3. Identify and analyze a variety of literary forms, including poetry, plays, and philosophical and religious texts.
4. Compare works from different cultures and historical periods examining genre, style, and content or theme.
5. Analyze how literary works reflect historical, national, cultural, and ethnic differences.

### Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

N/A

## C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

### **Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of critical thinking.*

Students will define problems, evaluate issues, and formulate research questions to guide their inquiries. They will complete reading and research tasks to collect, qualify and evaluate sources and data for credibility, relevance, and possible bias. Students will cite their sources in a systematic and respectful manner. Students will consider rhetorical, historical, and cultural contexts as they develop and refine their theses and ideas, and they will effectively communicate their conclusions and their underlying reasoning through written, oral or digital presentations.

Critical thinking will be assessed in the formation and articulation of ideas within students' essay projects as well as in written and oral responses to assigned readings and homework. Students will demonstrate the ability to analyze a text and identify various features, such as rhetorical context, intended audience, credibility and bias, and rhetorical modes.

---

### **Personal & Social Responsibility. Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global**

*In this box, provide a narrative that explains how the proposed course addresses 2 of the components of*

### Intercultural reasoning and intercultural competence

Through multiple writing and discussion assignments throughout the course, students will Explicate, Compare, and Interpret texts to gain insight into the people of other times and other cultures, and reflect on how their own values and moral structures are both a product of and a reaction to their own native environments. Student responses may take the forms of Argument or Discussion, and students will be encouraged to 'interrogate' texts to discern their deeper meanings. Comparisons with their own experiences will allow students to develop greater sensitivity and an awareness of the diversity of social, political, and cultural issues which characters may face. Considerations of characters' motivations and desires will help students develop a greater appreciation for the ways art (literature) may illuminate psychology and the human condition.

### Ethical Reasoning

Drawing on history, psychology and their own experiences, students will analyze the characters, motivations and sense of ethical responsibilities portrayed by characters and cultures in works of literature. Many stories and novels involve moral dilemmas and difficult choices; studying the evaluation, decision-making process and consequences of choice by others helps students formulate and examine their own approach to matters of ethics, integrity, philosophy, and what it takes to lead a 'moral life'.

### Collaboration skills, teamwork and value systems

Through discussion, debate, group projects, and presentations, students will practice collaborative and interactive modes of inquiry and the respectful free exchange and critique of ideas. Collaboration and group projects promote planning skills, division of labor, esprit de corps and mutual accountability - which are all highly prized skills in academia and the contemporary workplace.

The habits of mutual respect, collaboration, and cooperative problem-solving may also impact how young adults will react to larger societal dilemmas such as racism, gender equality, environmental responsibility, and income inequality.

**Information & Digital Literacy. Authority and Value of Information; Digital Literacy; Information Structure; and Research as Inquiry**

*In this box, provide a narrative that explains how the proposed course addresses **3** of the components of digital literacy.*

Students will acquire, assess, and communicate information across different mediums using digital tools. They will recognize the hazards and advantages of communicating in an integrated digital environment. Students will develop and pursue self-directed research which generates problem solutions or otherwise illuminates the complexity of issues and questions. They will document and share their inquiries using appropriate formats, tools, and digital presentation applications.

Information and digital literacy will be assessed throughout the semester as students utilize digital resources and word processing technology to research, compose, revise, format, and transmit their various assignments. Students will demonstrate competence utilizing research databases and other information tools to gather, organize and evaluate information, as well as their ability to navigate online learning platforms (where applicable) and standard electronic communications tools such as email, online chats, discussion forums, and digital meeting spaces such as Zoom or Skype.

**D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

<https://www.mesalands.edu/wp-content/uploads/2020/01/SLAC-Annual-Report-2018-19-Final.pdf>

**This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).**

hG

MB

## Date

Mar 18 2021

## Upload Assessment

**Completed** - Mar 18 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

### [ENGL 2650 Sample Assignment World Lit 1](#)

**Filename:** ENGL\_2650\_Sample\_Assignment\_World\_Lit\_1\_\_.pdf **Size:** 75.3 kB

## Upload Rubric

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

## Application: 0000001418

Don Scroggins - don.scroggins@clovis.edu  
NM General Education Curriculum

### Summary

**ID:** 0000001418

**Status:** Under Review

**Last submitted:** Mar 16 2021 02:09 PM (MDT)

## Application Form

**Completed** - Mar 10 2021

## Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills



The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students do to develop the essential skills throughout the course.

## Contact Information

Name	Don Scroggins
Title	Division Chair for Science and Math
Phone	575-769-4909
Email	<a href="mailto:scrogginsd@clovis.edu">scrogginsd@clovis.edu</a>

## Submitting Institution

Name of HEI	Clovis Community College
Submitting Department	Science

## Chief Academic Officer

Name	Dr. Robin Jones
Email	<a href="mailto:jonesr@clovis.edu">jonesr@clovis.edu</a>

## Registrar

Name	Kari Smith
Email	<a href="mailto:smithk@clovis.edu">smithk@clovis.edu</a>

## Is this application for your entire system (ENMU, NMSU, & UNM)?

Yes

## Institutional Course Information

Prefix	BIOL
Number	2210C
Title	Principles of Biology: Cellular and Molecular Biology Lecture and Lab
Number of credits	4

**Was this course previously part of the New Mexico General Education curriculum?**

Yes

**Co-requisite Course**

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)

**New Mexico Common Course Information**

Prefix	BIOL
Number	2210C
Name	Principles of Biology: Cellular and Molecular Biology Lecture and Lab

**A. Content Area and Essential Skills**

**To which area should this course be added?**

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Science - Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning

---

**B. Learning Outcomes**

---

## List all common course student learning outcomes for the course.

Common Course Student Learning Outcomes (find Common Course SLOs at:

<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

### Lecture:

1. Apply the scientific method to develop and evaluate hypotheses and propose an experiment to test a scientific hypothesis related to cell biology and molecular biology.
2. Describe the distinguishing characteristics of various biological molecules (water, carbohydrates, lipids, proteins, and nucleic acids). (HED Area 3, Competency 3)
3. Compare and contrast the basic features of cells and how prokaryotic cells differ from eukaryotic cells. (HED Area 3, Competency 3)
4. Understand how organisms maintain homeostasis in a dynamic environment.
5. Describe how biological molecules are acquired and how they are subsequently used to meet the metabolic needs of organisms. (HED Area 3, Competency 3)
6. Describe membrane structure and function.
7. Describe and analyze the nature of bioenergetic transformations and metabolism within the cell.
8. Describe the processes of cellular respiration and photosynthesis.
9. Analyze with specific detail the processes of DNA replication, transcription, and translation.
10. Analyze with specific detail the types, mechanisms, and regulation of cellular division.
11. Assess important applications of cell and molecular biology to energy use, medicine, and other day-to-day processes. (HED Area 3, Competency 1,3,4,5)

### Lab:

1. Describe and apply the scientific method to solve problems in biological context
2. Demonstrate knowledge of laboratory safety skills and procedures.
3. Practice principles of scientific method while conducting laboratory activities and experiments.
4. Perform laboratory activities using relevant laboratory equipment, chemical reagents, and supplies to observe biological specimens, to measure variables, and to design and conduct experiments.
5. Operate light microscopes, prepare wet mount slides, and use stains.
6. Exhibit ability to use pipettes and other volumetric measuring devices, chemical glassware, balances, pH meters or test papers, spectrophotometers, and separation techniques, such as chromatography and/or electrophoresis to perform activities relevant to other course competencies.
7. Analyze and report data generated during laboratory activities and experiments.

## Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

n/a

---

### C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

***Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.***

*In this box, provide a narrative that explains how the proposed course addresses **all** of the components of critical thinking.*

The Problem Setting in this course is scientific inquiry via the scientific method. Students learn how to use the scientific method as a means to acquire data/evidence, analyze and evaluate the data, and ultimately develop a reasonable answer or conclusion to a hypothesis. Laboratory assignments and reports are the primary assessment tool for Critical Thinking Skills. In the lab assignments students will learn how to collect data from an experiment based on a hypothesis, organize the data into appropriate tables/charts/graphs, analyze the data in its organized form, make judgements and evaluate the validity of the data, and develop a sound conclusion regarding the relationship between the data and the hypothesis. In the laboratory reports, students learn how to gather information through science literature research and learn how to distinguish that information which is relevant, significant, and appropriate to the laboratory assignments. Other assessment tools for Critical Thinking Skills include written exams, discussion forums, and quizzes.

***Quantitative Reasoning. Communication/Representation of Quantitative Information; Analysis of Quantitative Arguments; and Application of Quantitative Models***

*In this box, provide a narrative that explains how the proposed course addresses **all** of the components of quantitative reasoning.*

Students will learn how to communicate and represent quantitative data from laboratory assignments and science literature by organizing it into data tables, charts, and graphs; i.e., cellular growth rates. Students learn how to analyze and explain the significance of the organized data and identify any trends that the data may contain; i.e., exponential or linear growth rates. Students will also learn how quantitative models can be applied to predict possible outcomes, i.e., growth and development at the organismal level. Quantitative Reasoning Skills will be assessed with written exams, lab reports/presentations, discussion forums, and quizzes.

**Personal & Social Responsibility. *Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global***

*In this box, provide a narrative that explains how the proposed course addresses **2** of the components of personal & social responsibility.*

Students will examine human culture in the context of biology, the impacts of physical, chemical and environmental conditions on biology and health, including sustainable practice. Students will learn ethical reasoning skills during class discussions concerning biology and applicable current research. Students will discuss the cell structure, function, physiological needs, causes and ecology of cellular diseases, and the implications of humans as drivers of environmental and biological change. Collaboration skills, teamwork, and value systems are developed throughout the course as students are required to work with one another to learn cellular and molecular biology and use their combined skills towards civic engagement. Assessment will occur via formal written exams, lab assignments, quizzes and discussion forums.

#### **D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

<http://www.clovis.edu/pathwaychannels/faculty/assessment/CCCGenEdAssessmentHandbook.pdf>



This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).



**Date**

Mar 5 2021

## Upload Assessment

**Completed** - Mar 5 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

### [Final Exam2 BIOL 2110C Cell and Molecular](#)

**Filename:** Final\_Exam2\_BIOL\_2110C\_Cell\_and\_Molecular.pdf **Size:** 3.1 MB

## Upload Rubric

**Completed** - Mar 5 2021

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

### [BIOL 2110C Sample Syllabus](#)

**Filename:** BIOL\_2110C\_Sample\_Syllabus.pdf **Size:** 172.0 kB

# Application: 0000001491

Michael Bilopavlovich - michaelb@mesalands.edu  
NM General Education Curriculum

**Summary**

**ID:** 0000001491

**Status:** Under Review

**Last submitted:** Mar 25 2021 09:11 PM (MDT)

## Application Form

**Completed** - Mar 25 2021

## Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

### Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

### Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

### Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

### Contact Information

Name	Michael Bilopavlovich
Title	Faculty
Phone	575-461-4413 ext. 150
Email	<a href="mailto:michaelb@mesalands.edu">michaelb@mesalands.edu</a>

### Submitting Institution

Name of HEI	Mesalands Community College
Submitting Department	Academic Affairs

### Chief Academic Officer

Name	Natalie Gillard
Email	<a href="mailto:natalieg@mesalands.edu">natalieg@mesalands.edu</a>

### Registrar

Name	Forrest Kaatz
Email	<a href="mailto:forrestk@mesalands.edu">forrestk@mesalands.edu</a>

**Is this application for your entire system (ENMU, NMSU, & UNM)?**

No

**Institutional Course Information**

Prefix	Math
Number	112
Title	Trigonometry
Number of credits	3

**Was this course previously part of the New Mexico General Education curriculum?**

Yes

**Co-requisite Course**

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)

**New Mexico Common Course Information**

Prefix	MATH
Number	1230
Name	Trigonometry

**A. Content Area and Essential Skills**

**To which area should this course be added?**

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Mathematics - Communication, Critical Thinking, Quantitative Reasoning

---

**B. Learning Outcomes**

---

**List all common course student learning outcomes for the course.**

Common Course Student Learning Outcomes (find Common Course SLOs at:

<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

1. Students will be able to define and evaluate the trigonometric functions as functions of angle in both degree and radian measure using the definitions in terms of  $x$ ,  $y$ , and  $r$ ; as the ratio of sides of a right triangle; using the unit circle; using reference angles, commonly used ( $0^\circ$ ,  $30^\circ$ ,  $45^\circ$ ,  $60^\circ$ ,  $90^\circ$ ) angles and using a calculator.
2. Students will be able to solve right triangles. They will be able to draw a sketch in an applied problem when necessary.
3. Students will be able to solve non-right triangles using the law of sines and the law of cosines.
4. Students will be able to prove trigonometric identities and apply addition and subtraction, double-angle, half-angle and power reduction formulas.
5. Students will be able to graph the six trigonometric functions, their transformations and their inverses.
6. Students will be able to use algebraic methods, including the use of identities and inverses, to solve trigonometric equations and demonstrate connections to graphical and numerical representations of the solutions.
7. Students will be able to add and subtract vectors in two dimensions. They will be able to use the dot product to project one vector onto another and to determine the angle between two vectors. They will be able to solve a variety of word problems using vectors.
8. Students will be able to work with polar coordinates; this includes graphing in polar coordinates and transforming an equation with polar coordinates into one with rectangular coordinates, and vice versa.
9. Students will be able to work with the trigonometric form of complex numbers, including using De Moivre's formula.

## Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

N/A

---

### C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

**Communication. Genre and Medium Awareness, Application and Versatility; Strategies for Understanding and Evaluating Messages; and Evaluation and Production of Arguments.**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of communication.*

Throughout this course, students will practice genre and media awareness, application, and versatility through group study of course concepts and problems. Generally, it is through conversation with others that students can appreciate how different methods and approaches can be used to solve problems to come to the same solution. Students will share knowledge about opportunities and practices in engineering and mathematics related communities. The instructor will facilitate these class discussions in both oral and written form.

Students will practice strategies for understanding and evaluating messages as they try new approaches and develop new math awareness through application problems and projects. Using various scenarios and simulations, students will demonstrate mastery of trigonometric function value applications among many other skills. Students will be expected to give detailed step by step processes that demonstrates their understanding to solve problems. Students will practice the evaluation and production of arguments as they translate English-language sentences into algebraic expressions and equations. Students will be expected to illustrate and solve a variety of problems using a combination of spoken, written, and symbolic mathematical language. For example, students may be asked to explain to each other how to construct the "unit circle." This paired response should stimulate important discussions and help students who are struggling to see concepts from a different perspective.



**Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of critical thinking.*

Throughout Math 1230, students will demonstrate fundamental mathematical skills and a knowledge of how to perform basic trigonometric operations through homework assignments, projects, and quizzes. For example, students may be asked to formulate a problem or question from a work industry related field to include angles and force vectors simultaneously. In addition, they will develop procedures for accurately performing these calculations. Students will need to discern and discuss how trigonometric problems will be used in real world applications and how they might acquire the necessary information needed to solve a problem. Discerning which variable remains an unknown will be assessed by homework sets and quizzes. Critically reading story problems to identify unknown quantities and represent those as variables will be routinely be demonstrated by lecture presentations, homework sets, group work and chapter tests. Students will have to work problems that require understanding of how the use of degrees verses radian measure and to then apply these forms of measurement to different types of problems. Students will also use trigonometric function values to solve application problems simulating real world events. Students will have to use critical thinking to determine which operations are required to solve the particular circumstances in a story problem. This skill will help students formulate a decision or a recommendation about the information that is presented in the problem.

**Quantitative Reasoning. Communication/Representation of Quantitative Information; Analysis of Quantitative Arguments; and Application of Quantitative Models**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of quantitative reasoning.*

By the end of the course students will have reinforced the trigonometric skills necessary for successful use of in engineering fields by expressing quantitative information symbolically, graphically and in oral communication. Students will have demonstrated mathematical concepts by solving a variety of problems based on applications from the real world. Much of the learning of quantitative procedures is done with group work, formal assessments and weekly homework assignments. Students will demonstrate the graphical analysis of periodic functions, and expressing results in terms of amplitude, period, and phase shift. Students will solve basic trigonometric equations and become familiar with all angle values within a given period that satisfy the equation. Students will become familiar with the unit circle and trigonometric value approximations for applications and problem-solving procedures: critically reading the problem until a quantity that's unknown is identified and labeled as a variable; find the relationships using the unknown quantity; building an equation using those relationships; solving the corresponding equation; and checking the answer to ascertain that the answer is valid or not. Students will demonstrate these skills throughout the semester in written form using math symbols and notation when necessary as well as oral communication in discussion with their peers and the instructor. These skills will be assessed formally and informally through class discussions, homework assignments, projects, and exams.

---

**D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

<https://www.mesalands.edu/wp-content/uploads/2020/01/SLAC-Annual-Report-2018-19-Final.pdf>

---

This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).



**Date**

Mar 25 2021

## Upload Assessment

**Completed** - Mar 25 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

[Math 1230 Sample Assessment March 2021](#)

**Filename:** Math\_1230\_Sample\_Assessment\_March\_2021.pdf **Size:** 4.1 MB

## Upload Rubric

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

# Application: 0000001444

Michael Bilopavlovich - michaelb@mesalands.edu  
NM General Education Curriculum

### Summary

**ID:** 0000001444

**Status:** Under Review

**Last submitted:** Mar 18 2021 04:31 PM (MDT)

## Application Form

**Completed** - Mar 18 2021

# Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout

the course.

### Contact Information

Name	Michael Bilopavlovich
Title	Faculty
Phone	5754614413 ext. 150
Email	<a href="mailto:michaelb@mesalands.edu">michaelb@mesalands.edu</a>

### Submitting Institution

Name of HEI	Mesalands Community College
Submitting Department	Academic Affairs

### Chief Academic Officer

Name	Natalie Gillard
Email	<a href="mailto:natalieg@mesalands.edu">natalieg@mesalands.edu</a>

### Registrar

Name	Forrest Kaatz
Email	<a href="mailto:forrestk@mesalands.edu">forrestk@mesalands.edu</a>

### Is this application for your entire system (ENMU, NMSU, & UNM)?

No

### Institutional Course Information

Prefix	PSY
Number	101
Title	Introductory Psychology
Number of credits	3

**Was this course previously part of the New Mexico General Education curriculum?**

Yes

**Co-requisite Course**

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)

**New Mexico Common Course Information**

Prefix	PSYC
Number	1110
Name	Introduction to Psychology

**A. Content Area and Essential Skills**

**To which area should this course be added?**

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Social & Behavioral Sciences - Communication, Critical Thinking, Personal & Social Responsibility

## B. Learning Outcomes

---

**List all common course student learning outcomes for the course.**

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

1. Explain how the scientific method and psychological research methodologies are used to study the mind and behavior.
2. Recall key terms, concepts, and theories in the areas of neuroscience, learning, memory, cognition, intelligence, motivation, and emotion, development, personality, health, disorders and therapies, and social psychology.
3. Explain how information provided in this course can be applied to life in the real world.
4. Identify the major theoretical schools of thought that exist in psychology as they relate to the self, the culture, and the society.

---

### **Institution-specific Student Learning Outcomes**

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

N/A

## C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

***Communication. Genre and Medium Awareness, Application and Versatility; Strategies for Understanding and Evaluating Messages; and Evaluation and Production of Arguments.***

*In this box, provide a narrative that explains how the proposed course addresses all of the components of communication.*

Students are required to communicate effectively in written responses to; reaction paper assignments, research papers, and essay test portions, and presentations. The strategies for Understanding and Evaluating Messages is reinforced in the assignment involving looking at past communication of past societies in the misunderstanding of cultures that is described in the Personal and Social Responsibility section. Students are actively involved in the evaluation of their thoughts as well as others. The Production of Arguments is evaluated in the reaction papers that present diverse topics that they are allowed to express their views and develop an argument with past societies and generations that might have resulted in a more positive outcome. They are to respond to other students sharing their views and still maintain others' views as they continue dialogue. The students are encouraged to have effective and productive communication continually throughout this psychology course. The use of teams and small groups in the Categories of Schizophrenia assignment allow students to grow in the areas of versatility and team communication skills.



**Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of critical thinking.*

Students will clearly delineate several psychology issues that promote critical thinking. Students will examine the works of several prominent psychologists, such as Erickson, Skinner, Piaget, Freud, Plutchik, and others. Students are then asked to look at the evidence they present through their research and evaluate their research and draw conclusions. Learning in this area of Critical Thinking involves; lecture, individual research, Comparison Reaction Papers. The means of evaluation include; Written Exams including essay questions, and the research samples, and Comparison Reaction Papers. Students are given several clinical cases and asked to evaluate and problem solve possible psychological affects and challenged to develop possible improvement areas based on the learning outcomes that they have just examined in the class. Students are given the periodic challenge to “question the facts” and think for themselves about the New and Classical Psychology areas that we are currently studying. This was really evident this semester as scientist began to question Carbon 14 dating even within their own scientific community. Students are asked to compare and contrast much of the psychology curriculum with introspect to themselves and others.

**Personal & Social Responsibility. *Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global***

*In this box, provide a narrative that explains how the proposed course addresses 2 of the components of personal & social responsibility.*

The argument and counter argument model afforded by the Comparison Reaction Papers allow students to ethically reason on specific issues on both local and global levels. One such assignment in this class is to write a personal introspective paper on a week of their life if they were autistic. We do similar papers on; bipolar and do a unique activity where the students team up in small groups (learning valuable teamwork skills) to do a short video simulating one of the classes of Schizophrenia and the other students have to guess what category they are trying to simulate. Examining cultural differences has really become of more fundamental importance in recent times. To address this area of Personal Social Responsibility we take a look at history and look at cultures that were misunderstood and do a study as if we could travel back in time and what we could have done to solve the cultural misunderstanding of different groups. Students are given topics that allow them to formulate ethical reasoning and develop conclusions based on their ethical thoughts and reactions, and share and discuss the same development of ethical thoughts of others. We also do an assignment that includes interviewing residents of a nursing home, or retirement center looking for value systems and civic knowledge that either was effective or ineffective in that person's realm of family and community and solicit their reflective advice from someone in the last chapter of life to them as a student entering into their realm of beginning to have an impact on their local and global wellbeing.

---

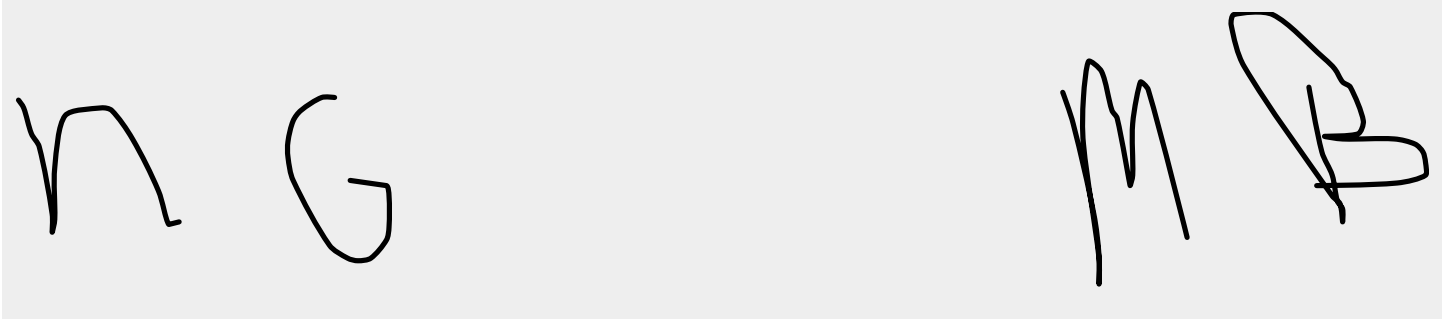
**D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

<https://www.mesalands.edu/wp-content/uploads/2020/01/SLAC-Annual-Report-2018-19-Final.pdf>

---

This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).



**Date**

Mar 18 2021

## Upload Assessment

**Completed** - Mar 18 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

### [Down Syndrome Assignment](#)

**Filename:** Down\_Syndrome\_Assignment.pdf **Size:** 69.4 kB

## Upload Rubric

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

# Application: 0000001466

Suzanne Balch - suzbal62@hotmail.com  
NM General Education Curriculum

### Summary

**ID:** 0000001466  
**Status:** Under Review  
**Last submitted:** Mar 25 2021 10:08 AM (MDT)

## Application Form

# Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.

- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

### Contact Information

Name	Suzanne Balch-Lindsay
Title	Asst VPAA
Phone	5755622314
Email	<a href="mailto:Suzanne.Balch@enmu.edu">Suzanne.Balch@enmu.edu</a>

### Submitting Institution

Name of HEI	Eastern New Mexico University
Submitting Department	Art

### Chief Academic Officer

Name	Jamie Laurenz
Email	<a href="mailto:jamie.Laurenz@enmu.edu">jamie.Laurenz@enmu.edu</a>

### Registrar

Name	DeLynn Bargas
Email	<a href="mailto:DeLynn.Bargas@enmu.edu">DeLynn.Bargas@enmu.edu</a>

### Is this application for your entire system (ENMU, NMSU, & UNM)?

No

## Institutional Course Information

Prefix	ARTH
Number	1110
Title	Art Appreciation
Number of credits	3

## Was this course previously part of the New Mexico General Education curriculum?

Yes

## Co-requisite Course

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)

## New Mexico Common Course Information

Prefix	ARTH
Number	1110
Name	Art Appreciation

## A. Content Area and Essential Skills

## To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Creative & Fine Arts - Communication, Critical Thinking, Personal & Social Responsibility

## B. Learning Outcomes

### List all common course student learning outcomes for the course.

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

1. Trace the development of diverse art and architecture styles
2. Compare and contrast the major art and architectural styles
3. Use art terms and explain basic art concepts
4. Analyze the visual elements and design principles in masterworks of art
5. Describe masterpieces objectively, with emphasis on contemporary works
6. Gain general knowledge of the history of artistic production
7. Understand how both art and the study of art relates to other disciplines, such as philosophy, history, archeology, theater, and music
8. Distinguish the elements and principles of design and explain how they are being used in a given piece of art

### Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

**\*\*SUBMITTED as R&R on request from the A&T committee, May 2020.\*\***

## C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

***Communication. Genre and Medium Awareness, Application and Versatility; Strategies for Understanding and Evaluating Messages; and Evaluation and Production of Arguments.***

*In this box, provide a narrative that explains how the proposed course addresses **all** of the components of communication.*

During this course, students produce simple, easy to execute artworks designed for beginner students, and scaffolded writing assignments that work towards a paper and a presentation. Through the scaffolded assignments, they are able to build skills of visual and language-based analysis. They learn the basic skills of visual analysis, formal analysis and contextual analysis through worksheets, the textbook and class exercises. This has applications in other fields where they have to analyze visual data alongside language-based information. Their journals require reflection on topics and prompts that generate skill sets in evaluating visual and language-based messages. By first analyzing the artworks and writing about art in the text book, then creating their own arguments in their paper draft that is revised by the instructor, they learn how to evaluate and produce their own arguments. The drafting process helps them obtain skills necessary across disciplines in University level courses.



***Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.***

*In this box, provide a narrative that explains how the proposed course addresses all of the components of critical thinking.*

For the paper draft and slideshow presentation in this course, students select a topic from a series of options related to politics, identity, culture and visual formal choices. They then learn how to elaborate on that topic thereby learning how to set a problem and find solutions through gathering evidence. Students are prompted to gather scholarly evidence from the book and outside sources that supports the theme selected for their assignments, and are required evaluate that evidence to ensure it is relevant to their particular topic. They then use the comparative model to discuss several artworks according to the theme, and finish their assignments with their own conclusions on the topic. They are provided worksheets that explain how to structure an academic paper, from the thesis statement, introduction paragraphs to conclusion as a guide and model in how to generate their own papers and presentations that engage skills of critical thinking.

**Personal & Social Responsibility. *Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global***

*In this box, provide a narrative that explains how the proposed course addresses **2** of the components of personal & social responsibility.*

The core content of this course is a textbook that addresses art and creativity from a broad and culturally pluralistic view. They are exposed to historical information about art as a cross-cultural endeavor. Because they must learn to see different forms of art making and craft as valid, they exercise ethical reasoning. The book and the unit links expose the students to artists engaging sustainability and sensitivity to the natural world, via material sensitivity (for example: artists who use cast off / recycled materials as art material and indigenous artists whose worldview incorporates holding the natural world and the materials within it as sacred and worthy of careful use). During class exercises, they respond to each others artworks and writing with facilitative feedback, learning ethical collaborative skills. The course focuses on the importance of art in local communities, but also how it is a part of cultural diaspora and survival of cultural traditions, increasing student understanding of the role of art and creativity in civic discourse and community engagement.

---

#### **D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

<https://www.enmu.edu/about/public-documents/assessment/general-education-assessment-reports>

---

This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).



**Date**

Mar 24 2021

## Upload Assessment

**Completed** - Mar 24 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

[ENMU ARTH 1110 R&R Art Appreciation](#)

**Filename:** ENMU\_ARTH\_1110\_RR\_Art\_Appreciation.pdf **Size:** 168.8 kB

## Upload Rubric

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

# Application: 0000001476

Michael Bilopavlovich - michaelb@mesalands.edu  
NM General Education Curriculum

### Summary

**ID:** 0000001476

**Status:** Under Review

**Last submitted:** Mar 24 2021 09:06 PM (MDT)

# Application Form

Completed - Mar 24 2021

## Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

### Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

### Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

### Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.

- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

### Contact Information

Name	Michael Bilopavlovich
Title	Faculty
Phone	575-461-4413 ext. 150
Email	<a href="mailto:michaelb@mesalands.edu">michaelb@mesalands.edu</a>

### Submitting Institution

Name of HEI	Mesalands Community College
Submitting Department	Academic Affairs

### Chief Academic Officer

Name	Natalie Gillard
Email	<a href="mailto:natalieg@mesalands.edu">natalieg@mesalands.edu</a>

### Registrar

Name	Forrest Kaatz
Email	<a href="mailto:forrestk@mesalands.edu">forrestk@mesalands.edu</a>

**Is this application for your entire system (ENMU, NMSU, & UNM)?**

No

**Institutional Course Information**

Prefix	PHYS
Number	115
Title	Introduction to Physics
Number of credits	4

**Was this course previously part of the New Mexico General Education curriculum?**

Yes

**Co-requisite Course**

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)

**New Mexico Common Course Information**

Prefix	PHYS
Number	1115C
Name	Survey of Physics with Lab

**A. Content Area and Essential Skills**

## To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Science - Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning

## B. Learning Outcomes

**List all common course student learning outcomes for the course.**

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

1. Apply concepts of classical mechanics (such as velocity, acceleration, force, inertia, momentum, torque, work, energy) to simple static and dynamic systems.
2. Apply concepts of thermodynamics (such as heat, temperature, internal energy, entropy) to simple processes.
3. Apply concepts of electricity and magnetism (such as fields, potential, charge conservation, static and dynamic induction) to simple circuits, motors, and other simple contrivances.
4. Apply simple geometric and wave optics in simple situations.
5. Test ideas using modern laboratory equipment.
6. Estimate experimental uncertainties.
7. Use computers to analyze and report laboratory results.
8. Draw appropriate conclusions from quantitative scientific observations.
9. Accurately and clearly communicate the results of scientific experiments.

## Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

N/A

---

### C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---



**Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of critical thinking.*

Science is not just a collection of facts and figures - students are expected to not just recall facts and information, but to use critical thinking to apply what they have learned to new situations. This is especially true of homework assignments and laboratory activities, where students cannot answer questions simply by copying their course notes or textbook, but must synthesize what they have learned. Through using scientific inquiry and methods throughout the semester, students encounter and are assessed with open-ended questions and problems on homework assignments, laboratory exercises and exams. First, the students must understand what the problem is asking (problem setting) and identify any relevant course discussion or data collection (evidence acquisition). Students will also be required to use critical thinking skills in acquiring data, discerning the unknown factors of the problem, evaluating the data to determine a possible solution pathway, and finally incorporating the data into an equation to produce a reasonably accurate conclusion. As a result, students evaluate what they already know and extrapolate and explore these ideas in new situations which allows them to develop appropriate problem-solving strategies to successfully calculate answers to the problems they may encounter (evidence evaluation).

Another important aspect of critical thinking in PHYS 1115 involves the construction of scientific arguments. Most generally, students are expected to not just state their answers, but to provide thorough explanations and support. More broadly, students should begin to challenge claims, demand data, and recognize scientific reasoning (i.e. scientific laws are not and can never be proven, but they have a wide body of evidence supporting them). In this way, students are trained to be skeptical of claims that seem to contradict well-established theories. Instead, they are encouraged to do their own research whenever appropriate and draw well-informed conclusions (reasoning/conclusion).

**Quantitative Reasoning. Communication/Representation of Quantitative Information; Analysis of Quantitative Arguments; and Application of Quantitative Models**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of quantitative reasoning.*

Physics is a quantitative science which is used in describing our conceptual model of the universe. While PHYS 1115 is largely a conceptual course, quantitative reasoning is a fundamental skill in any science and is introduced in appropriate contexts in this course. Basic physics formulas and their applications are introduced. Students are expected to recognize how variables are used in these formulas and to use quantitative reasoning to predict an outcome. In some cases, they will directly use these formulas to solve simple computations. More commonly, these skills are utilized in the form of proportional reasoning (i.e. if  $x$  is doubled, what happens to  $y$ ?) (application of quantitative arguments). In addition, students should identify that any scientific argument should be supported by data, which has a quantitative backing. They are introduced to the idea of orders of magnitude and explore that different quantities can use vastly different scales (i.e. distances can just as easily be quoted in nanometers ( $10^{-9}$  m) or kilometers (1000 m)).

Additionally, they should be able to predict reasonable sizes of certain quantities (for example, while 100 Newtons is a reasonable amount of force in daily experience, 100 Coulombs of charge is an extraordinarily large amount) (communication/representation of quantitative information). In their laboratory activities students will formulate measurements, create summary data tables and apply quantitative reasoning to the interpretation and plotting of graphs, including correctly identifying axes scales, reading off direct values of data, and analyzing patterns and trends (analysis of quantitative arguments).

Much as with critical thinking, quantitative reasoning skills are demonstrated by the instructor during class time as a model to guide students. Homework assignments and laboratory activities require deeper application of quantitative reasoning on their own time, followed by tests which evaluate whether a minimum level of quantitative reasoning has been achieved.

**Personal & Social Responsibility. *Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global***

*In this box, provide a narrative that explains how the proposed course addresses **2** of the components of personal & social responsibility.*

The central theme of PHYS 1115 is energy. In particular, the course focuses on the physics of energy transformations as they occur in our daily lives. Central to this theme are the environmental impacts of our societal dependence on various energy sources (intercultural reasoning and intercultural competence). As society realizes the need for renewable energy, students in this course must consider and analyze the pros and cons of various energy sources, including impacts on the climate that may result well after the implementation of a new source of energy. Students are encouraged to research the issues and draw their own conclusions by considering a wide variety of arguments and scientific tools. The ideas of energy efficiency, wasted energy and their impact on sustainability are also explored (sustainability and the natural and human worlds).

Additionally, this course encourages collaboration and teamwork both inside and outside the classroom. PHYS 1115 is a student-centered course, meaning that students are not passive observers, but rather must take an active role during class time. This expectation encourages students to be actively engaged with their peers during class time. In the laboratory activities, students form teams to investigate the physics concepts under investigation. All group members are expected to participate and contribute to the data acquisition and the groups' understanding of the activity. As a result, students' network with their peers and share responsibility (collaboration skills, teamwork, and value systems).

---

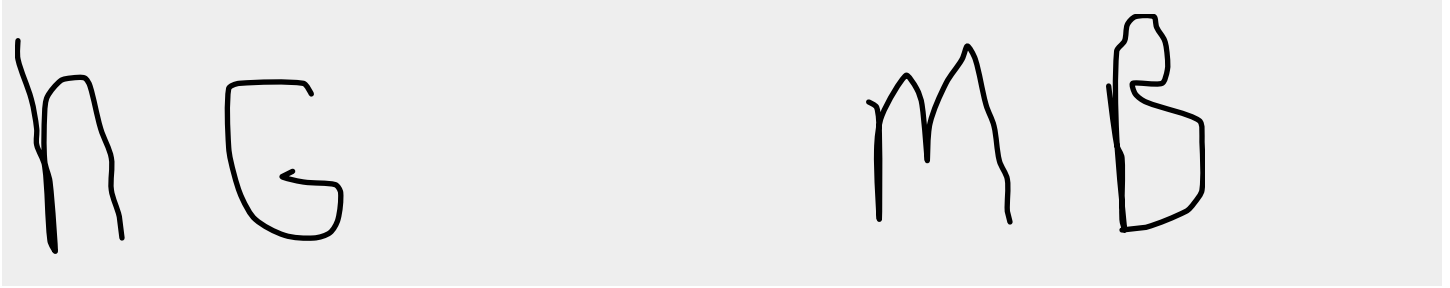
**D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

<https://www.mesalands.edu/wp-content/uploads/2020/01/SLAC-Annual-Report-2018-19-Final.pdf>

---

This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).

A handwritten signature in black ink on a light gray background. The signature consists of the letters 'H', 'G', 'M', and 'B' written in a stylized, cursive-like font.

**Date**

Mar 24 2021

## Upload Assessment

**Completed** - Mar 24 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

[\*\*PHYS 1115C Sample Assessment March 2021\*\*](#)

**Filename:** PHYS\_1115C\_Sample\_Assessment\_March\_2021.pdf **Size:** 1.1 MB

## Upload Rubric

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

# Application: 0000001415

A. BAILEY Pagels - pagelsa@wnmu.edu  
NM General Education Curriculum

**Summary**

**ID:** 0000001415

**Status:** Under Review

**Last submitted:** Mar 23 2021 03:12 PM (MDT)

## Application Form

# Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.

- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

### Contact Information

Name	Ashley Bailey Pagels
Title	Admin to the Provost
Phone	575-538-6207
Email	<a href="mailto:pagelsa@wnmu.edu">pagelsa@wnmu.edu</a>

### Submitting Institution

Name of HEI	Western New Mexico University
Submitting Department	Academic Affairs

### Chief Academic Officer

Name	William Jack Crocker
Email	<a href="mailto:William.Crocker@wnmu.edu">William.Crocker@wnmu.edu</a>

### Registrar

Name	Betsy Miller
Email	<a href="mailto:Betsy.Miller@wnmu.edu">Betsy.Miller@wnmu.edu</a>

### Is this application for your entire system (ENMU, NMSU, & UNM)?

Yes

## Institutional Course Information

Prefix	SOWK
Number	2110
Title	Introduction to Human Services and Social Work
Number of credits	3

## Was this course previously part of the New Mexico General Education curriculum?

Yes

## Co-requisite Course

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)

## New Mexico Common Course Information

Prefix	SOWK
Number	2110
Name	Introduction to Human Services and Social Work

## A. Content Area and Essential Skills

## To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Social & Behavioral Sciences - Communication, Critical Thinking, Personal & Social Responsibility

## B. Learning Outcomes

**List all common course student learning outcomes for the course.**

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

1. Explain the interactions of social institutions, cultural factors, dimensions of identity, and the environment with the human development and behavior of individuals.
2. Demonstrate knowledge of the social work profession's focus on addressing contemporary social issues in the United States.
3. Describe the mission and services provided by social service agencies at the regional, national, and global levels.
4. Demonstrate a basic understanding of the social work profession, its history, career opportunities, and contemporary issues facing social workers in the United States today.
5. Recognize how students' knowledge, skills, and attitudes impact their competence as helping professionals.



## Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

6. Gain an understanding of the importance of ethical practice and critical thinking in the realm of social work.
7. Recognize the extent to which a culture's structures and values may oppress, marginalize, alienate, create, or enhance privilege and power.
8. Gain an understanding of the forms and mechanisms of oppression and discrimination.

---

### C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

**Communication. Genre and Medium Awareness, Application and Versatility; Strategies for Understanding and Evaluating Messages; and Evaluation and Production of Arguments.**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of communication.*

This course requires students to engage in effective communication across various genres, including oral communication through community engagement, assignments, and discussions; written communication through written assignments including essays, reports, and papers; and digital communication through the use of online discussion boards and electronically submitted assignments. In order to understand and evaluate messages, students are required to apply strategies such as reading for main points, seeking key arguments, and apply theoretical lenses to reading assignments including reading the course textbook, reading and analyzing multiple codes of ethics, reading the news as it relates to the current events assignment, and making proposals related to service learning components. Students must evaluate codes of ethics from varying professions, evaluating sources and distinguishing between key aspects of each code and use correct APA style to describe their findings and make a case for their own personal ethics. Students must also demonstrate the ability to evaluate the authority of sources and integrate support for their own claims by distinguishing from news sources to determine what truth is and to analyze the ways that social workers can address problems related to current events integrating evidence from research. Students submit most work in the course in correctly formatted APA style.

***Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.***

*In this box, provide a narrative that explains how the proposed course addresses all of the components of critical thinking.*

The course requires students to engage in critical thinking around issues, both historical and current, that may disempower, oppress, or marginalize individuals or groups as a means of understanding how the profession of social work seeks to challenge these injustices. Students are required to regularly engage as learners through the presentation of lectures, videos, and exercises as well as to independently engage in learning about past and current events that affect people such as the passage of new laws, challenges of current laws, natural or man-made disasters, and other events that create problems or opportunities in society. Students critically examine their power as potential change agents once engaged in regularly seeking knowledge about their social environment. To evaluate learning in this areas, students engage in regular graded discussions as well as a current events paper that asks the student to describe a significant current event and discusses how social workers would engage in action around the student's identified current event.

**Personal & Social Responsibility. Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global**

*In this box, provide a narrative that explains how the proposed course addresses **2** of the components of personal & social responsibility.*

The course includes study surrounding personal and professional ethics as well as an introduction to understanding cultural awareness as both are values of the profession of social work. Students are also exposed to the concept of civic engagement through current events and the exposure to the historical context of the profession of social work. Students in the course evaluate the difference between codes of ethics and codes of conduct as well as an exploration of personal or familial values. Students engage in discussion related to Kohlberg's Moral Development Theory as well as other developmental theories that can impact values and ethics. Students engage the concept of diversity by discussing concepts related to stereotypes, power and privilege, and cultural competence. All sections of the course discuss social inequity while students in service-learning sections directly engage in activities to address social inequity. Learning in these areas is evaluated by participation in graded and ungraded group discussion as well as by the completion of assignments including an ethics comparison paper, a current events paper, a paper describing an immersive intercultural experience undertaken by the student, and for students in service-learning sections, the completion of a community service learning project and reflection on their experience.

#### **D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

<https://academic.wnmu.edu/wp-content/uploads/sites/82/2019/07/WNMU-General-Education-Assessment-Plan-2019-2020.pdf>

This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).



**Date**

Mar 23 2021

## Upload Assessment

**Completed** - Mar 23 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

### [SOWK 2110Communication addendum](#)

**Filename:** SOWK\_2110Communication\_addendum.pdf **Size:** 268.7 kB

## Upload Rubric

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

## Application: 0000001528

Michael Bilopavlovich - michaelb@mesalands.edu  
NM General Education Curriculum

### Summary

**ID:** 0000001528

**Status:** Under Review

**Last submitted:** Mar 29 2021 04:59 PM (MDT)

## Application Form

**Completed** - Mar 29 2021

## Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

## Contact Information

Name	Michael Bilopavlovich
Title	Faculty
Phone	5754614413 ext. 150
Email	<a href="mailto:michaelb@mesalands.edu">michaelb@mesalands.edu</a>

## Submitting Institution

Name of HEI	Mesalands Community College
Submitting Department	Academic Affairs

## Chief Academic Officer

Name	Natalie Gillard
Email	<a href="mailto:natalieg@mesalands.edu">natalieg@mesalands.edu</a>

## Registrar

Name	Forrest Kaatz
Email	<a href="mailto:forrestk@mesalands.edu">forrestk@mesalands.edu</a>

## Is this application for your entire system (ENMU, NMSU, & UNM)?

No

## Institutional Course Information

Prefix	ENG
Number	210
Title	Experiential Learning Portfolio
Number of credits	1

**Was this course previously part of the New Mexico General Education curriculum?**

Yes

**Co-requisite Course**

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)

**New Mexico Common Course Information**

Prefix	ENGL
Number	2994
Name	Experiential Learning Portfolio

**A. Content Area and Essential Skills**

**To which area should this course be added?**

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Communications - Communication, Critical Thinking, Information & Digital Literacy



## B. Learning Outcomes

---

**List all common course student learning outcomes for the course.**

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

1. Philosophy of experiential learning students will create a portfolio and score 70% or better on the following concepts:
  - a. Define experiential learning and contrast how it differs from traditional classroom-based instruction.
  - b. Explain why experience does not always constitute learning.
2. Identifying experiential learning activities students will score 70% or better on a portfolio which includes the following:
  - a. List non-collegiate activities that may result in experiential learning.
  - b. Recognize other activities or accomplishments that may be evidence of experiential learning.
  - c. Discuss criteria for assessing validity of experiential learning.
  - d. Identify and document the student's own experiential learning experiences.
3. Learning outcome statements students will score 70% or better on a portfolio which includes the following :
  - a. Demonstrate the ability to construct a concise narrative
  - b. Documenting life experiences, incorporating correct grammar and syntax.
4. Express life experiences and identify specific learning that has resulted from those experiences.
5. Portfolio construction students will score 70% or better on a portfolio which includes the following:
  - a. Demonstrate the use of proper formatting in constructing a portfolio.
  - b. Organize and present life experiences in a manner that effectively
  - c. Portrays one's skills and background.
  - d. Document life experiences in an orderly and systematic manner.

## Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

N/A

---

### C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

**Communication. Genre and Medium Awareness, Application and Versatility; Strategies for Understanding and Evaluating Messages; and Evaluation and Production of Arguments.**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of communication.*

Students will engage in reading, writing, analysis, research, and discussion activities in which they identify, evaluate and respond to diverse rhetorical situations. Students will use diverse and appropriate communication strategies in various mediums. Students will pursue various reading strategies to seek out, evaluate, and support or rebut key points in diverse example texts. Students will practice applying both theoretical and cultural templates to contextualize their analysis and their written responses. Students will formulate hypotheses, opinions, and position statements – and communicate their conclusions using appropriate rhetorical forms. They will evaluate sources and evidence to support their theses through organized presentation of arguments and appropriately cited references using a designated citation system such as MLA or APA.

Written Communications skills will be assessed through multiple diverse composition assignments, including at least 4 completed and revised formal essays which integrate reading, research, evaluation and analysis, and quotation and citation of sources, as well as diverse homework and reading response assignments requiring different reading and reasoning strategies. Students will receive both formative and summative feedback which they will be expected to incorporate into their revisions. Effective use of digital media and appropriate document formatting will also be assessed.

Oral Communication skills will be assessed through documented participation in class discussion and oral argument (for in-person courses), as well as ability to give and follow instructions and collaborate with other students.

**Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of critical thinking.*

Students will define problems, evaluate issues, and formulate research questions to guide their inquiries. They will complete reading and research tasks to collect, qualify and evaluate sources and data for credibility, relevance, and possible bias. Students will cite their sources in a systematic and respectful manner. Students will consider rhetorical, historical, and cultural contexts as they develop and refine their theses and ideas, and they will effectively communicate their conclusions and their underlying reasoning through written, oral or digital presentations.

Critical thinking will be assessed in the formation and articulation of ideas within students' essay projects as well as in written and oral responses to assigned readings and homework. Students will demonstrate the ability to analyze a text and identify various features, such as rhetorical context, intended audience, credibility and bias, and rhetorical modes.

**Information & Digital Literacy. Authority and Value of Information; Digital Literacy; Information Structure; and Research as Inquiry**

*In this box, provide a narrative that explains how the proposed course addresses **3** of the components of digital literacy.*

Students will acquire, assess, and communicate information across different mediums using digital tools. They will recognize the hazards and advantages of communicating in an integrated digital environment. Students will develop and pursue self-directed research which generates problem solutions or otherwise illuminates the complexity of issues and questions. They will document and share their inquiries using appropriate formats, tools, and digital presentation applications.

Information and digital literacy will be assessed throughout the semester as students utilize digital resources and word processing technology to research, compose, revise, format, and transmit their various assignments. Students will demonstrate competence utilizing research databases and other information tools to gather, organize and evaluate information, as well as their ability to navigate online learning platforms (where applicable) and standard electronic communications tools such as email, online chats, discussion forums, and digital meeting spaces such as Zoom or Skype.

---

**D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

<https://www.mesalands.edu/wp-content/uploads/2020/01/SLAC-Annual-Report-2018-19-Final.pdf>

---

This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).

N G M B

Date

Mar 29 2021

## Upload Assessment

Completed - Mar 29 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

[Sample Assignment ENG 210 ENGL 2994](#)

Filename: Sample\_Assignment\_ENG\_210\_ENGL\_2994.pdf Size: 100.1 kB

## Upload Rubric

Incomplete

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

# Application: 0000001513

Michael Bilopavlovich - michaelb@mesalands.edu  
NM General Education Curriculum

Summary

ID: 0000001513

Status: Under Review

Last submitted: Mar 29 2021 03:08 PM (MDT)

## Application Form

# Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.

- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

### Contact Information

Name	Michael Bilopavlovich
Title	Faculty
Phone	5754614413 ext. 150
Email	<a href="mailto:michaelb@mesalands.edu">michaelb@mesalands.edu</a>

### Submitting Institution

Name of HEI	Mesalands Community College
Submitting Department	Academic Affairs

### Chief Academic Officer

Name	Natalie Gillard
Email	<a href="mailto:natalieg@mesalands.edu">natalieg@mesalands.edu</a>

### Registrar

Name	Forrest Kaatz
Email	<a href="mailto:forrestk@mesalands.edu">forrestk@mesalands.edu</a>

### Is this application for your entire system (ENMU, NMSU, & UNM)?

No



## Institutional Course Information

Prefix	HIST
Number	101
Title	Survey of American History to 1877
Number of credits	3

## Was this course previously part of the New Mexico General Education curriculum?

Yes

## Co-requisite Course

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)

## New Mexico Common Course Information

Prefix	HIST
Number	1110
Name	United States History I

## A. Content Area and Essential Skills

**To which area should this course be added?**

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Humanities - Information & Digital Literacy, Critical Thinking, Personal & Social Responsibility

---

**B. Learning Outcomes**

---

**List all common course student learning outcomes for the course.**

Common Course Student Learning Outcomes (find Common Course SLOs at:

<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

Upon successful completion of this course the student will be able to accomplish the following with at least 70% accuracy:

1. Students will be able to EXPLAIN in their work how humans in the past shaped their own unique historical moments and were shaped by those moments, and how those cultures changed over the course of the centuries for the history of the United States from the pre-colonial period to the immediate aftermath of the Civil War. Bloom Taxonomy's Cognitive Process: REMEMBER AND UNDERSTAND
2. Students will DISTINGUISH between primary and secondary sources, IDENTIFY and EVALUATE evidence and EMPATHIZE with people in their historical context. Bloom Taxonomy's Cognitive Process: ANALYZE, REMEMBER, EVALUATE, CREATE
3. Students will SUMMARIZE and APPRAISE different historical interpretations and evidence in order to CONSTRUCT past events. Bloom Taxonomy's Cognitive Process: UNDERSTAND, EVALUATE, APPLY
4. Students will IDENTIFY historical arguments in a variety of sources and EXPLAIN how they were constructed, EVALUATING credibility, perspective, and relevance. Bloom Taxonomy's Cognitive Process: REMEMBER, UNDERSTAND, EVALUATE
5. Students will CREATE well-supported historical arguments and narratives that demonstrate an awareness of audience. Bloom Taxonomy's Cognitive Process: CREATE, APPLY 8
6. Students will APPLY historical knowledge and historical thinking "in order to infer what drives and motivates human behavior in both past and present." Bloom Taxonomy's Cognitive Process: APPLY, ANALYZE 9

## Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

N/A

---

### C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

***Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.***

*In this box, provide a narrative that explains how the proposed course addresses all of the components of critical thinking.*

Students will be given historical problems to analyze either through discussions, journals, or a paper. They will have to use creative skills and critical thinking as they work through these problems. In the discussions, students will be asked to describe the problem as it exists in History as well as to compare this problem to another problem in history or to current problems in our society. Students will at times wrestle with cognitive dissonance as they learn about more history, which is sometimes different from stories they grew up with. They must use critical thinking to develop new understanding of the material and to articulate that understanding in new ways.

Students will, during the course of discussion, evaluate each others' arguments and bring in research of their own to move the conversation forward in an academic way. In this collaborative approach, students will be exposed to new ideas and must find a way to reconcile them with scholarly conversation. Students will reason through their own arguments and the arguments of their peers, coming to new conclusions. In their own research, students will need to evaluate sources based upon historical accuracy and trustworthiness so that they can make sound arguments in discussions and the paper. In the journaling activities, students will use their critical thinking to understand a specific event or series of events they found interesting and articulate how they came to a new understanding of the material.

**Personal & Social Responsibility. Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global**

*In this box, provide a narrative that explains how the proposed course addresses 2 of the components of personal & social responsibility.*

Due to the nature of historical inquiry, students necessarily will interact with societal and cultural situations. Through their study of this historical time period, they will need to evaluate social and cultural mores both as they existed in the past and how they are viewed in today's world. Students are expected to be respectful and thoughtful as they explore these topics and to be sensitive to others' worldviews as they discuss social issues. Sometimes in culture, there are those who live and think very differently to ourselves, and students will discuss these topics in a professional and academic manner. Students will study various techniques those in the past had for solving environmental problems such as farming using irrigation, road building, urbanization or pollution; discovering that sometimes past methods were brought forward in history to still be used in the modern day.

In the study of subaltern history, (the history of minority groups such as Native Americans, women, African Americans, and the LGBTQ community) students will be able to evaluate the treatment of those cultures and how that treatment has changed over time, touching on societal ethics' failures and triumphs. Students will evaluate reasons for the marginalization of other cultures through Anglo ethnocentricity, Paternalism, and Patriarchy; and will work collaboratively to reason through cultural differences by the use of academic discussions. At times, they will be asked to bring personal anecdotes to the discussion, enabling a more intimate discussion through specific examples. Through journaling, students will discuss their personal experiences with history, discovering and reasoning through their own biases. Students will understand that by studying history, we can better understand the problems of the present.

**Information & Digital Literacy. Authority and Value of Information; Digital Literacy; Information Structure; and Research as Inquiry**

*In this box, provide a narrative that explains how the proposed course addresses **3** of the components of digital literacy.*

In this day and age, most students are familiar with the internet and computers. Students will turn in all their work online, and so will need to be able to navigate the class website in order to successfully complete their assignments. Because this is an online course, the students will need to be comfortable with digital literacy and able to find information on the internet. Students will be able to do their research online as well as using primary documents based on the Word Wide Web that will be provided by their instructor. The class uses Youtube videos to illustrate some concepts, as well as using primary sources published by universities, so the internet is instrumental in providing much ancillary information to the class.

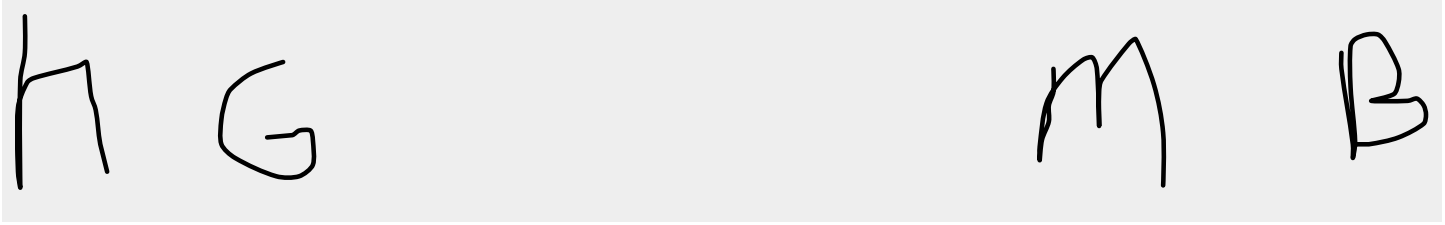
Students will become more and more familiar with use of the school website as they progress through the class, learning different ways to turn in their work. They will understand that not all websites are trustworthy for historical information as some may have been written in an “armchair” fashion by non-experts, or they may belong to organizations who have a bias toward funneling their readers toward the organization as in the case of tourism-based websites who are attempting to bring business toward their community. Students will learn, following their instructor’s examples, how to evaluate information they find on the internet so that they can integrate it into their work. Students will be expected to properly cite sources they bring from the internet for evaluation by the instructor to ensure historical accuracy.

**D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

<https://www.mesalands.edu/wp-content/uploads/2020/01/SLAC-Annual-Report-2018-19-Final.pdf>

This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).

A handwritten signature in black ink, consisting of the letters 'H', 'G', 'M', and 'B' spaced out.

**Date**

Mar 29 2021

## Upload Assessment

**Completed** - Mar 29 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

### [HIST 1110 Sample Assignment](#)

**Filename:** HIST\_1110\_Sample\_Assignment.pdf **Size:** 107.0 kB

## Upload Rubric

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

## Application: 0000001510

Michael Bilopavlovich - michaelb@mesalands.edu  
NM General Education Curriculum

### Summary

**ID:** 0000001510

**Status:** Under Review

**Last submitted:** Mar 29 2021 12:02 PM (MDT)

## Application Form

**Completed** - Mar 29 2021



# Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout

the course.

### Contact Information

Name	Michael Bilopavlovich
Title	Faculty
Phone	5754614413 ext. 150
Email	<a href="mailto:michaelb@mesalands.edu">michaelb@mesalands.edu</a>

### Submitting Institution

Name of HEI	Mesalands Community College
Submitting Department	Academic Affairs

### Chief Academic Officer

Name	Natalie Gillard
Email	<a href="mailto:natalieg@mesalands.edu">natalieg@mesalands.edu</a>

### Registrar

Name	Forrest Kaatz
Email	<a href="mailto:forrestk@mesalands.edu">forrestk@mesalands.edu</a>

### Is this application for your entire system (ENMU, NMSU, & UNM)?

No

### Institutional Course Information

Prefix	CHEM
Number	113
Title	General Chemistry
Number of credits	4

**Was this course previously part of the New Mexico General Education curriculum?**

Yes

**Co-requisite Course**

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)

**New Mexico Common Course Information**

Prefix	CHEM
Number	1216
Name	General Chemistry

**A. Content Area and Essential Skills**

**To which area should this course be added?**

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Science - Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning

## B. Learning Outcomes

---

**List all common course student learning outcomes for the course.**

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

1. Students of chemistry basics will:
  - A. Describe the main features of atoms and molecules
  - B. Explain the Periodic Table
  - C. List methods of measurement in chemistry
2. Students of the structure of atoms and molecules will:
  - A. Describe atomic structure
  - B. Describe molecular structure
3. Students of chemical reactions will:
  - A. Explain the principles of chemical equations
  - B. Describe the main elements of stoichiometry
4. Students of gases, light, and periodicity will:
  - A. Describe the behavior of gases
  - B. Explain the relationship between atoms and light
  - C. Atomic structure and periodicity
5. Students of bonding and intermolecular forces will:
  - A. Outline the fundamentals of bonding
  - B. Describe the nature of multiple bonds
  - C. Explain the structure of macromolecules
  - D. Describe the principle intermolecular forces
6. Students of the rates of chemical reactions will:
  - A. Describe the principles that govern the rates of reactions
  - B. Explain the main features of experimental kinetics

7. Students of chemical equilibria will:

- A. Outline the main features of dynamic equilibrium
- B. List the types of equilibria
- C. Explain the principles of thermodynamics and equilibrium

---

### **Institution-specific Student Learning Outcomes**

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

N/A

---

### **C. Narrative**

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

**Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of critical thinking.*

Students will develop inferences and problem solving solutions based on data that they derive from the ten labs, lectures, and inference assignments. Students will collect evidence, and evaluate that evidence continually throughout the course using the different labs, lectures, and articles. Some examples in the class include; the Flame Test Lab, Measuring Mass Lab, Photoelectric Effect Lab, and Ideal vs Real Gas Law Lab. Some Examples of the Inference assignments in addition to the labs that promote Critical Thinking include; Carbon 14 Validity, Nuclear Usage in the future, and What will future fuels look like. In all these assignments students are given data, not answers promoting Critical Thinking. They will have to form conclusions that are scientifically valid given their research and data. Critical Thinking is key to this course and developing scientific logic, students are constantly challenged to think beyond the given facts and postulates and see if they appear to be applicable in each research area in the course. One such area in this course is molecular bonding and the bond types that can occur and change the structure of the molecule. Students must use a computer model to examine the possible molecular bonding of several compounds, ions, and isotopes, and determine which ones would be the most stable and which ones would most likely not exist in nature outside the Chemistry Lab.

**Quantitative Reasoning. Communication/Representation of Quantitative Information; Analysis of Quantitative Arguments; and Application of Quantitative Models**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of quantitative reasoning.*

Students are given data practice activities throughout the course in which they are to examine quantitative information and assess its relevance and analyze the data for cumulative conclusions. Examples include; measuring pH values and then determining conjugate acid base pairs; describing the difference between cis and a trans isomer; and whether a reaction will be spontaneous at a given temperature and pressure using Entropy. In each of these examples students have to gather and interpret data and use that data in Quantitative Reasoning Students use scientific equipment to quantitatively determine data. Triple beam and analytical balances as used to collect much of the data that the students analyze. In one example students have to determine the percent error from using a triple beam balance vs using an analytical balance. Students also experience Quantitative Reasoning as they use ashless filter paper to determine the amount of arsenic in the local tap water. Students have to develop Scientific charts and graphs constantly throughout the course which we can assess the effectiveness of the student's quantitative collection skills. One example of this and Application of Quantitative Models in this class includes calculation of and graphing zero, first, and second order reactions and then predicting the half -life of the reactions.

**Personal & Social Responsibility. Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global**

*In this box, provide a narrative that explains how the proposed course addresses 2 of the components of personal & social responsibility.*

Students are asked to ethically reason on scientific issues on both local and global levels. The mix of science and the people that both formulate and use the science is experienced by the students as they develop intercultural reasoning and intercultural differences. Some examples include calculation of their own CO2 print on the environment. Learning validity and value of a resource has become a major part of teaching personal and social responsibility in today's social media world. In this class we look at claims that are made and look at the validity to determine if it is science research based or merely opinion. This valuable part of the class not only educates the students about fact vs theory, it gives them more responsibility as they go on to become scientists, or even businessmen whose statements about science need to be valid and not merely opinion. Students have to collaborate and use teamwork in the labs as the course data is often synthesized for the total research data to be relevant. Our College gets several international students and we team students from different cultures together to allow each one to learn from the other, and appreciate the differences that they have. Another good example of this is when the data is aggregated from the entire class and they look at mean values and not just individual values. The diversity of how to handle civic issues and world concerns is a vital area for the course and students have the effects of science, but also have to look at the effect of the research on people and society. Looking at how past scientist dealt with nuclear waste gives our students a great insight into their personal and social responsibility as scientists, as one assignment called, "What I would do different" looks directly at personal and social responsibility.

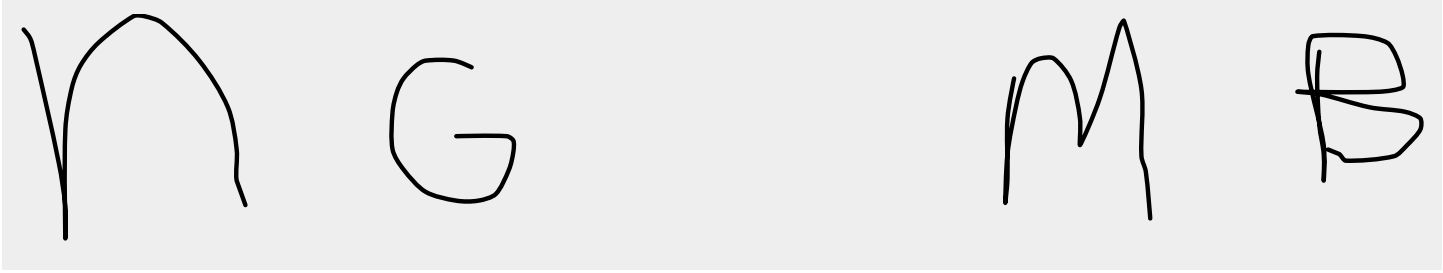
#### **D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

<https://www.mesalands.edu/wp-content/uploads/2020/01/SLAC-Annual-Report-2018-19-Final.pdf>



This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).

A handwritten signature in black ink on a light gray background. The signature consists of the letters 'N', 'G', 'M', and 'B' written in a stylized, cursive-like font.

**Date**

Mar 29 2021

## Upload Assessment

**Completed** - Mar 29 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

[\*\*Your contribution to carbon dioxide to the global atmosphere \(002\)\*\*](#)

**Filename:** Your\_contribution\_to\_carbon\_dioxide\_HpBAk2e.pdf **Size:** 213.7 kB

## Upload Rubric

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

# Application: 0000001441

Michael Bilopavlovich - michaelb@mesalands.edu  
NM General Education Curriculum

### Summary

**ID:** 0000001441

**Status:** Under Review

**Last submitted:** Mar 18 2021 02:31 PM (MDT)

## Application Form

**Completed** - Mar 18 2021

# Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout

the course.

### Contact Information

Name	Michael Bilopavlovich
Title	Faculty
Phone	5754614413 ext. 150
Email	<a href="mailto:michaelb@mesalands.edu">michaelb@mesalands.edu</a>

### Submitting Institution

Name of HEI	Mesalands Community College
Submitting Department	Academic Affairs

### Chief Academic Officer

Name	Natalie Gillard
Email	<a href="mailto:natalieg@mesalands.edu">natalieg@mesalands.edu</a>

### Registrar

Name	Natalie Gillard
Email	<a href="mailto:natalieg@mesalands.edu">natalieg@mesalands.edu</a>

### Is this application for your entire system (ENMU, NMSU, & UNM)?

No

### Institutional Course Information

Prefix	ENG
Number	201 C
Title	Types of Literature: Drama
Number of credits	3

**Was this course previously part of the New Mexico General Education curriculum?**

Yes

**Co-requisite Course**

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)

**New Mexico Common Course Information**

Prefix	ENGL
Number	2350
Name	Introduction to Drama

**A. Content Area and Essential Skills**

**To which area should this course be added?**

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Humanities - Information & Digital Literacy, Critical Thinking, Personal & Social Responsibility

## B. Learning Outcomes

---

**List all common course student learning outcomes for the course.**

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

1. Identify, define, and analyze elements of the dramatic form and performance.
2. Demonstrate an understanding of the historical and cultural contexts for plays.
3. Compare and contrast plays of different types and from different periods
4. Identify common dramatic themes

---

### **Institution-specific Student Learning Outcomes**

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

N/A

---

## C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

***Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.***

*In this box, provide a narrative that explains how the proposed course addresses all of the components of critical thinking.*

Students will define problems, evaluate issues, and formulate research questions to guide their inquiries. They will complete reading and research tasks to collect, qualify and evaluate sources and data for credibility, relevance, and possible bias. Students will cite their sources in a systematic and respectful manner. Students will consider rhetorical, historical, and cultural contexts as they develop and refine their theses and ideas, and they will effectively communicate their conclusions and their underlying reasoning through written, oral or digital presentations.

Critical thinking will be assessed in the formation and articulation of ideas within students' essay projects as well as in written and oral responses to assigned readings and homework. Students will demonstrate the ability to analyze a text and identify various features, such as rhetorical context, intended audience, credibility and bias, and rhetorical modes.

***Personal & Social Responsibility. Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global***

*In this box, provide a narrative that explains how the proposed course addresses 2 of the components of personal & social responsibility.*

Intercultural reasoning and intercultural competence

Through multiple writing and discussion assignments throughout the course, students will Explicate, Compare, and Interpret texts to gain insight into the people of other times and other cultures, and reflect on how their own values and moral structures are both a product of and a reaction to their own native environments. Student responses may take the forms of Argument or Discussion, and students will be encouraged to 'interrogate' texts to discern their deeper meanings. Comparisons with their own experiences will allow students to develop greater sensitivity and an awareness of the diversity of social, political, and cultural issues which characters may face. Considerations of characters' motivations and

desires will help students develop a greater appreciation for the ways art (literature) may illuminate psychology and the human condition.

### Ethical Reasoning

Drawing on history, psychology and their own experiences, students will analyze the characters, motivations and sense of ethical responsibilities portrayed by characters and cultures in works of literature. Many stories and novels involve moral dilemmas and difficult choices; studying the evaluation, decision-making process and consequences of choice by others helps students formulate and examine their own approach to matters of ethics, integrity, philosophy, and what it takes to lead a 'moral life'.

### Collaboration skills, teamwork and value systems

Through discussion, debate, group projects, and presentations, students will practice collaborative and interactive modes of inquiry and the respectful free exchange and critique of ideas. Collaboration and group projects promote planning skills, division of labor, esprit de corps and mutual accountability - which are all highly prized skills in academia and the contemporary workplace.

The habits of mutual respect, collaboration, and cooperative problem-solving may also impact how young adults will react to larger societal dilemmas such as racism, gender equality, environmental responsibility, and income inequality.

**Information & Digital Literacy. Authority and Value of Information; Digital Literacy; Information Structure; and Research as Inquiry**

*In this box, provide a narrative that explains how the proposed course addresses **3** of the components of digital literacy.*

Students will acquire, assess, and communicate information across different mediums using digital tools. They will recognize the hazards and advantages of communicating in an integrated digital environment. Students will develop and pursue self-directed research which generates problem solutions or otherwise illuminates the complexity of issues and questions. They will document and share their inquiries using appropriate formats, tools, and digital presentation applications.

Information and digital literacy will be assessed throughout the semester as students utilize digital resources and word processing technology to research, compose, revise, format, and transmit their various assignments. Students will demonstrate competence utilizing research databases and other information tools to gather, organize and evaluate information, as well as their ability to navigate online learning platforms (where applicable) and standard electronic communications tools such as email, online chats, discussion forums, and digital meeting spaces such as Zoom or Skype.

**D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

<https://www.mesalands.edu/wp-content/uploads/2020/01/SLAC-Annual-Report-2018-19-Final.pdf>

**This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).**

NG

MB



## Date

Mar 18 2021

## Upload Assessment

**Completed** - Mar 18 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

### [ENGL 2350 Sample Assignment](#)

**Filename:** ENGL\_2350\_Sample\_Assignment\_.pdf **Size:** 64.3 kB

## Upload Rubric

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

## Application: 0000001488

Robert Moore - Robert.Moore@rm01.enmuros.cc.nm.us  
NM General Education Curriculum

### Summary

**ID:** 0000001488

**Status:** Under Review

**Last submitted:** Mar 25 2021 02:53 PM (MDT)

## Application Form

**Completed** - Mar 25 2021

## Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students do to develop the essential skills throughout the course.

### Contact Information

Name	Robert Moore
Title	Assistant VP
Phone	5756247001
Email	<a href="mailto:robert.moore@roswell.enmu.edu">robert.moore@roswell.enmu.edu</a>

### Submitting Institution

Name of HEI	ENMU-Roswell
Submitting Department	Science

### Chief Academic Officer

Name	Annemarie Oldfield
Email	<a href="mailto:annemarie.oldfield@roswell.enmu.edu">annemarie.oldfield@roswell.enmu.edu</a>

### Registrar

Name	Linda Neel
Email	<a href="mailto:linda.neel@roswell.enmu.edu">linda.neel@roswell.enmu.edu</a>

### Is this application for your entire system (ENMU, NMSU, & UNM)?

No

### Institutional Course Information

Prefix	BIOL
Number	2225
Title	Anatomy and Physiology II
Number of credits	3

**Was this course previously part of the New Mexico General Education curriculum?**

Yes

**Co-requisite Course**

Prefix	BIOL
Number	2225L
Title (if applicable)	Anatomy and Physiology II Laboratory

**New Mexico Common Course Information**

Prefix	BIOL
Number	2225
Name	Anatomy and Physiology II Lecture + Lab

**A. Content Area and Essential Skills**

**To which area should this course be added?**

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Science - Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning

## B. Learning Outcomes

---

**List all common course student learning outcomes for the course.**

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

### BIOL 2225 Anatomy and Physiology II

1. Identify and describe the major anatomical features of the endocrine, cardiovascular, lymphatic, respiratory, digestive, urinary, and reproductive systems.
2. Analyze the physiological roles of the endocrine, cardiovascular, lymphatic, respiratory, digestive, urinary, and reproductive systems in maintaining homeostasis in the human body.
3. Explain how fluid and electrolyte balance is maintained in the human body.
4. Compare and contrast the anatomy and physiology of male and female reproductive systems.
5. Describe pregnancy from conception to parturition including human growth and development from zygote to newborn.
6. Explain heredity and genetic control.

### BIOL 2225 L Anatomy and Physiology II Lab

1. Apply the scientific method correctly.
2. Collect, analyze, and interpret scientific data.
3. Use laboratory equipment, such as a microscope, correctly and safely.
4. Identify the anatomical components of human tissues, organs, and organ systems using prepared microscope slides, models, diagrams, illustrations, or cadaver specimens.
5. Describe the functional characteristics of human tissues, organs, and organ systems using prepared microscope slides, models, diagrams, illustrations, or cadaver specimens.
6. Analyze the physiological processes of the endocrine, cardiovascular, lymphatic, respiratory, digestive, urinary, and reproductive systems.
7. Analyze the physiological processes of fluid and electrolyte balance and acid base balance in the human body.
8. Analyze heredity and genetic control.

## Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

NA

---

### C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

**Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of critical thinking.*

One way that critical thinking skills are assessed in the lecture course is that for each chapter of the text, students use a database program that has thousands of questions for each chapter that span the range of Bloom's Taxonomy that are assigned for homework. I can assess student understanding in multiple ways and at multiple levels. For example, questions start with the basics like identifying the names of the major cellular structures or principal muscles, which is important for our course. Then, I assess their ability to apply their functions to conditions and symptoms when the regular homeostatic mechanisms are disrupted. Another high-level activity for students utilizes interactive animations. These high-resolution, comprehensive animations cover complex physiological processes and require the student to answer questions, interact with the artwork, and drive the animation forward. They must demonstrate an understanding in order for the animation to continue. It is an active learning animation, rather than just a passive viewing experience. The assignments not only require the students to view and participate in the animation; they tag them to a series of questions beginning with remembering baseline information from the animation and ramping up to higher level, case study-like questions and problems.

For the laboratory course, the goal is to promote critical thinking and relate learning to real world scenarios rather than rely mainly on rote memorization of scattered facts. One way this is accomplished is by using clinical case studies. These allow us to create learning environments that give students opportunities to apply, analyze, synthesize, and evaluate information. For example, after a discussion of blood and heart in lecture, the students are presented with a case study in lab. The students are broken into groups of three or four and given a case study concerning an older adult that has experienced a stroke and is taken to the emergency room to assess his condition. In a stepwise fashion, students are expected to interpret his ECG, blood work, and other relevant findings, advise treatment for the stroke, rehabilitation, and the patient's eventual recovery. After answering several groups of questions, students are brought back together to discuss their individual group answers. Each group of students is asked, at random, to present one part of the case to the entire class and share their findings. See Attachment 1 - An Elderly Anomaly Case Study and Questions.

**Quantitative Reasoning. Communication/Representation of Quantitative Information; Analysis of Quantitative Arguments; and Application of Quantitative Models**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of quantitative reasoning.*

The majority of the quantitative reasoning skills are taught in the laboratory course. However, during lecture basic measurements, conversions, graphing, and how to interpret graphs are discussed and illustrated. In the laboratory, quantitative reasoning is used throughout the semester. For example, during lecture a discussion of the cardiovascular system is discussed. This includes an explanation of the electrocardiogram (ECG). ECG tracings — the diagnostic tool that analyzes the electrical function of the heart and measure voltage (vertical measurement) versus time (horizontal measurement) is further discussed during lab. Students are divided into small groups and given ECG tracings and expected to be able to calculate heart rate, P wave, T wave, PR interval, ST segment, and the QRS complex. We work a few problems together and a few problems are given to work on during lab and for homework. Additionally, students must be able to explain what each of these items represents and/or measures. For a part of their cardiovascular quiz, students are expected to be able to calculate and explain all of these values.

All experiments revolve around the use of the scientific method, data collection, interpretation of data, making conclusions, and making recommendations for further studies. All lab meetings require students to gather quantitative data. This data is then analyzed and interpreted. Students are taught to use Word, Excel, and PowerPoint to illustrate data in various formats. Basic statistical information is taught and used by students like central tendency (mean, median, and mode), hypothesis testing and statistical significance, and probability.



**Personal & Social Responsibility. Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global**

*In this box, provide a narrative that explains how the proposed course addresses 2 of the components of personal & social responsibility.*

During lecture, the normal homeostatic mechanisms of the human body are discussed for each body system. However, abnormal health conditions and disease states are discussed, especially as it relates to New Mexico. Students are exposed to address conditions like heart disease, cancer, emphysema, stroke, and diabetes. Students collaborate with each other in both the lecture and lab settings. This is especially true for the lab as students are able to form small groups to work with each other and move around the room more easily. Each week students work in groups to complete lab activities. Some grades are based on group projects and group participation. See Participation Rubric. Group participation is used for the purpose of promoting gains in content knowledge and critical thinking as well as demonstrating the importance of collaboration and teamwork.

As previously mentioned, student groups are formed to work on clinical case studies. The groups are required to work through assigned cases in a clinical manner to identify important questions and variables, state hypotheses, integrate important content information (supported by lecture), analyze data, and draw reasoned clinical conclusions on possible diagnoses and the involved anatomy. Clinical case studies serve to connect student experiences to textbook content, making them more relevant to student daily life. This increases student engagement and reinforces clinical principles and critical thinking

Many, if not all, of the students taking this course are looking for a career in one of the health professions. Professionalism is a core competency for all healthcare professionals and delivering the highest quality patient care is of utmost importance. Professionalism and ethics are often addressed as part of the clinical cases under review.

#### **D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

[https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan\\_ENMURoswell.pdf](https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan_ENMURoswell.pdf)

**This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).**

A handwritten signature in black ink, appearing to read "Rm / Amc", is displayed on a light gray background.

**Date**

Mar 25 2021

## **Upload Assessment**

**Completed** - Mar 25 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

### **BIOL 2225 Assignment**

**Filename:** BIOL\_2225\_Assignment.pdf **Size:** 958.9 kB

## **Upload Rubric**

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

**Application: 0000001440**

## Summary

**ID:** 0000001440

**Status:** Under Review

**Last submitted:** Mar 18 2021 01:53 PM (MDT)

## Application Form

**Completed** - Mar 18 2021

## Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

### Contact Information

Name	Michael Bilopavlovich
Title	Faculty
Phone	5754614413 ext. 150
Email	<a href="mailto:michaelb@mesalands.edu">michaelb@mesalands.edu</a>

### Submitting Institution

Name of HEI	Mesalands Community College
Submitting Department	Academic Affairs

### Chief Academic Officer

Name	Natalie Gillard
Email	<a href="mailto:natalieg@mesalands.edu">natalieg@mesalands.edu</a>

## Registrar

Name	Forrest Kaatz
Email	<a href="mailto:forrestk@mesalands.edu">forrestk@mesalands.edu</a>

### Is this application for your entire system (ENMU, NMSU, & UNM)?

No

### Institutional Course Information

Prefix	COM
Number	101
Title	Interpersonal Communications
Number of credits	3

### Was this course previously part of the New Mexico General Education curriculum?

Yes

### Co-requisite Course

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)

## New Mexico Common Course Information

Prefix	COMM
Number	2120
Name	Interpersonal Communication

### A. Content Area and Essential Skills

#### To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Communications - Communication, Critical Thinking, Information & Digital Literacy

### B. Learning Outcomes

#### List all common course student learning outcomes for the course.

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

1. Define and describe basic interpersonal communication terms and concepts
2. Identify and analyze interpersonal communication across a variety of personal and professional contexts in both face-to-face and mediated forms.
3. Identify and demonstrate a variety of skills that will enhance interpersonal communication
4. Analyze a variety of purposes and goals in interpersonal communication interactions
5. Recognize diversity and ethical considerations in interpersonal interactions

## Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

N/A

---

### C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

**Communication. Genre and Medium Awareness, Application and Versatility; Strategies for Understanding and Evaluating Messages; and Evaluation and Production of Arguments.**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of communication.*

Students will demonstrate Genre and Medium Awareness, Application and Versatility through written and oral assignments including group projects, discussions, and assessment response papers. Students will demonstrate Strategies for Understanding and Evaluating Messages, Evaluation and Production Argument in a written project on a selected Communication Theory. Students are asked to communicate effectively in written reflective responses to an online discussion prompt dealing with a Communication Theory from the weekly reading. All student posts are required to include qualified examples from these sources to produce sound arguments. Students are directed to use a scholarly tone and use the proper citation system for referencing. Once students initially post, they each evaluate a minimum of two posts of their classmates via generated rebuttal and/or concurring replies as strategies for understanding and evaluating messages. The final written project will be chosen from one of the Communication Theories discussed in the semester forums. The final paper is to be three pages in length with at least two properly cited (APA) sources. The sources must include an online and printed resource. Students will be required to present the three-page paper in oral form in conjunction with the written manuscript. This is a semester long project and includes research of not only the forum discussions, but also Communication Concepts. By completing self-assessments and through introspection, students complete written assignments on their listening ability, their view of self, and emotional intelligence. Students access web-based personality and self-assessments, they then read and interpret their results in order to complete a written assessment that is either submitted in hard-copy or uploaded to the Learning Management System.



**Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of critical thinking.*

Students will evaluate interpersonal relationship and issues within those relationships, including gathering and interpreting of information necessary to mediate the issue(s) and address/solve the relationship issue/problem through discussions, written work, and a written assessments. Students are asked to communicate effectively in written and oral reflective responses on an online discussion constructed from the weekly readings and a final paper constructed from one of the weekly forum topics. All student posts are required to produce sound arguments and insights from the weekly materials. Once students initially post, they each evaluate a minimum of one post from their classmates via generated rebuttal and/or concurring replies as strategies for understanding and evaluating messages. Students are also asked to construct a final three-page paper on one of the weekly topics. Students are directed to use a scholarly tone and use the proper citation system for referencing (APA for disciplined area of study; Communication). The paper must include the topic, thesis, introduction, body and conclusion with resources to follow. Students are to address one of the theories covered in the weekly forums in a coherent and analytical manner. This paper will then be presented orally by the students for a final grade. The presentation will be assessed with a grading rubric encompassing the outline, resources, and content of the paper.

**Information & Digital Literacy. Authority and Value of Information; Digital Literacy; Information Structure; and Research as Inquiry**

*In this box, provide a narrative that explains how the proposed course addresses **3** of the components of digital literacy.*

Students complete self-assessments online and conduct research communication concepts for their final project. Students are provided an overview of site and source credibility and are shown how to search for scholarly articles. Students set up digital means for communication and often utilize Google Meet and video chat to complete projects. Digital video and software are utilized throughout the semester to accomplish projects and assignments. Students are required to cite not only textual information, but to also find scholarly research to support their views and cite and reference them correctly. Courses all have a shell on the Learning Management System and students are required to log-into that system to check grades and to access information for the course. Information on plagiarism is covered and the ethics of communication is covered in the course as well. Student's work must be typed and is either submitted in hard-copy in class, uploaded to the course in the Learning Management System, or at times e-mailed to the instructor.

---

**D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

<https://www.mesalands.edu/wp-content/uploads/2020/01/SLAC-Annual-Report-2018-19-Final.pdf>

---

This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).



**Date**

Mar 18 2021

## Upload Assessment

**Completed** - Mar 18 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

### [COMM 2120 Interpersonal Communication Sample Assignment](#)

**Filename:** COMM\_2120\_Interpersonal\_Communication\_\_T1o2LNN.pdf **Size:** 74.9 kB

## Upload Rubric

**Completed** - Mar 18 2021

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

### [COMM 2120 Rubric](#)

**Filename:** COMM\_2120\_Rubic.pdf **Size:** 152.3 kB

# Application: 0000001518

Robert Moore - Robert.Moore@rm01.enmuros.cc.nm.us  
NM General Education Curriculum

## Summary

**ID:** 0000001518

**Status:** Under Review

**Last submitted:** Mar 29 2021 02:25 PM (MDT)

## Application Form

# Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.

- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

### Contact Information

Name	Robert Moore
Title	Assistant VP
Phone	5756247001
Email	<a href="mailto:robert.moore@roswell.enmu.edu">robert.moore@roswell.enmu.edu</a>

### Submitting Institution

Name of HEI	ENMU-Roswell
Submitting Department	Science

### Chief Academic Officer

Name	Annemarie Oldfield
Email	<a href="mailto:annemarie.oldfield@roswell.enmu.edu">annemarie.oldfield@roswell.enmu.edu</a>

### Registrar

Name	Linda Neel
Email	<a href="mailto:linda.neel@roswell.enmu.edu">linda.neel@roswell.enmu.edu</a>

### Is this application for your entire system (ENMU, NMSU, & UNM)?

No

## Institutional Course Information

Prefix	CHEM
Number	1110
Title	Chemistry in Our Community
Number of credits	3

## Was this course previously part of the New Mexico General Education curriculum?

Yes

## Co-requisite Course

Prefix	CHEM
Number	1110L
Title (if applicable)	Chemistry in Our Community Lab

## New Mexico Common Course Information

Prefix	CHEM
Number	1110
Name	Chemistry in Our Community Lecture + Lab

## A. Content Area and Essential Skills

## To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Science - Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning

## B. Learning Outcomes

**List all common course student learning outcomes for the course.**

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

1. Define and explain basic chemical terms, principles and concepts.
2. Recognize simple compounds.
3. Utilize the scientific method to analyze arguments.
4. Interpret information from data presented in charts, graphs, tables and spreadsheets.
5. Balance chemical and nuclear reactions and solve simple stoichiometry problems.
6. Analyze the quality of an argument provided in support of a position.
7. Identify reliable government and scientific websites for accessing data relevant to current local, national and international issues.
8. Understand and explain the basic chemistry behind and major issues of debate concerning topics such as air and water quality, global climate change, use of fossil fuels, nuclear power, and alternative energy sources.

## Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

NA

---

### C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---



**Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of critical thinking.*

All essential skills are exercised during as an application of the scientific method in Chemistry for Today lecture and laboratory course. Students practice critical thinking skills in several contexts and assessments: class discussions, viewing videos, reading assigned articles, discussion postings, laboratory exercises and formal exams.

**Problem Setting**

Problem setting is a part of scientific inquiry and an initial step in the scientific method. In lecture students practice problem setting by close reading a timely news article or video then participating in a class discussion, discussion posting or answering an essay-style question on a formal exam. The students identify key talking points in the article/video and develop the over-all argument that summarizes the problem. In laboratory, students practice problem setting by making observations and considering what is already known vs. what we need to know within a chemistry-based experimental setting.

**Evidence Acquisition and Evaluation**

Students practice evidence acquisition by researching outside sources for facts and other substantiation to support their idea about a topic or opinion. Extending what was described in the previous section, the article/video sets up a context in which students must develop an informed, evidence-based opinion around the topic. In laboratory, students gather evidence to support a hypothesis and gather evidence while conducting an experiment or investigation. Students review data, interpret results and evaluate whether or not those results support their working hypothesis.

**Reasoning/Conclusion**

Students utilize reasoning skills to when addressing open-ended questions asking them to discuss and summarize their own conclusions about a topic. Discussion postings allow students ample time to craft a carefully considered argument or response. In a laboratory setting, students review all of their progress during a lab exercise and draft lab report to summarize key interpretations, data sets and conclusions.

**Quantitative Reasoning. *Communication/Representation of Quantitative Information; Analysis of Quantitative Arguments; and Application of Quantitative Models***

*In this box, provide a narrative that explains how the proposed course addresses all of the components of quantitative reasoning.*

Students practice quantitative reasoning by examining texts and manipulating given data sets. The students complete quantitative exercises as part of class discussions and formal exams. Class discussion is most often used as a formative method for evaluating initial student understanding while formal exams and laboratory reports are used for summative assessment.

**Communication/Representation of Quantitative Information**

In both lecture and laboratory, students practice communication and representation of quantitative information by examining written news articles within a chemistry context. They examine the presented data to extract meaning from graphs, tables and diagrams. Students also examine written description of data to develop correlations and trends. Students evaluate the author's interpretation of the data and compare such with their own analysis. In the laboratory, students research a product and deliver an oral presentation on the applied chemistry within the product.

**Analysis of Quantitative Arguments**

In both lecture and laboratory, students analyze data by close examination of written journal articles. Students develop description of a study group and determine meaning of data trends as applied to the study group. Students compare their own interpretation to the author's interpretation of the data and evaluate the comparison for similarities and differences.

**Application of Quantitative Models**

In both lecture and laboratory, student practice using quantitative models by using given data sets to design representative tables, graphs or diagrams. Students also use data sets to calculate common statistical information to describe the data set.

**Personal & Social Responsibility. Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global**

*In this box, provide a narrative that explains how the proposed course addresses 2 of the components of personal & social responsibility.*

#### Sustainability and Ethical Reasoning

Throughout the term, students relate chemistry with the human impact on the environment. Students learn how chemical means are used to minimize human impact and how environmental chemistry can impact living systems. Students learn the immediate and long-term impact of these interactions as well as the sustainability of the interactions. Students practice ethical reasoning during class discussion or discussion postings in response to assigned text/articles and videos. Students identify ethical concerns and explain ways to address the concerns within a chemistry context.

#### Collaboration Skills and Teamwork

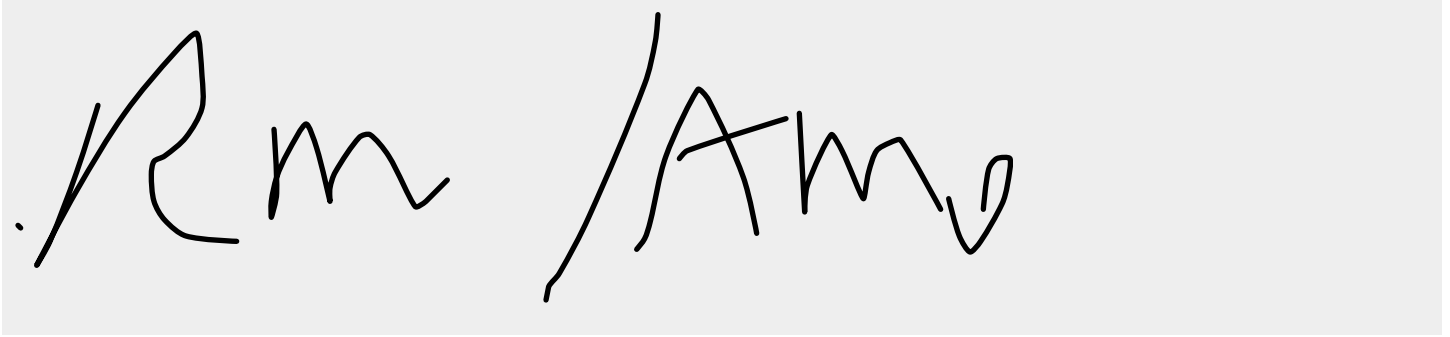
In laboratory, students collaborate by working in small groups to complete experiments and laboratory exercises. The lab sessions provide opportunities for students to discuss and develop a single cohesive solution to open-ended questions that are based in a sustainability or socially responsible context.

#### **D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

[https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan\\_ENMURoswell.pdf](https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan_ENMURoswell.pdf)

This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).

A handwritten signature in black ink on a light gray background. The signature appears to be "Rm / Amv" written in a cursive, stylized font.

**Date**

Mar 29 2021

## Upload Assessment

**Completed** - Mar 29 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

### [CHEM 1110 ASSESSMENT](#)

**Filename:** CHEM\_1110\_ASSESSMENT.pdf **Size:** 528.5 kB

## Upload Rubric

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

# Application: 0000001501

Julia Deisler - julia.deisler@sfcc.edu  
NM General Education Curriculum

### Summary

**ID:** 0000001501

**Status:** Under Review

**Last submitted:** Mar 29 2021 09:39 PM (MDT)

## Application Form

# Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.

- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

### Contact Information

Name	Elizabeth Towers
Title	Adjunct faculty, art history
Phone	505 428 1731
Email	<a href="mailto:elizabeth.towers@sfcc.edu">elizabeth.towers@sfcc.edu</a>

### Submitting Institution

Name of HEI	Santa Fe Community Colleg
Submitting Department	Arts and Design

### Chief Academic Officer

Name	Margaret Peters
Email	<a href="mailto:margaret.peters@sfcc.edu">margaret.peters@sfcc.edu</a>

### Registrar

Name	Kathleen Sena
Email	<a href="mailto:kathleen.sena@sfcc.edu">kathleen.sena@sfcc.edu</a>

### Is this application for your entire system (ENMU, NMSU, & UNM)?

No

## Institutional Course Information

Prefix	ARTH
Number	2120
Title	History of Art II
Number of credits	3

## Was this course previously part of the New Mexico General Education curriculum?

Yes

## Co-requisite Course

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)

## New Mexico Common Course Information

Prefix	ARTH
Number	2020
Name	History of Art II

## A. Content Area and Essential Skills

## To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Humanities - Information & Digital Literacy, Critical Thinking, Personal & Social Responsibility

## B. Learning Outcomes

### List all common course student learning outcomes for the course.

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

1. Identify major artworks from a variety of regions and time periods. 2. Investigate the methods of producing various works of art. 3. Articulate an understanding and appreciation for the political, social, spiritual, intellectual, and cultural contexts of art forms. 4. Comprehend and apply terms, methodologies and concepts common to studies of art history, developing a language to further understanding of art. 5. Compare works across a range of historical styles and periods. 6. Analyze works of art through writing and discussion.

### Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

NA



## C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

### **Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.**

*In this box, provide a narrative that explains how the proposed course addresses **all** of the components of critical thinking.*

The study of art history by its interdisciplinary nature is an exercise in developing the essential skills of critical thinking, information and digital literacy, and personal and social responsibility. In this course, the Common Course SLOs are a set of actions that directly engage students in these essential skills. For example, "Articulate an understanding and appreciation for the political, social, spiritual, intellectual, and cultural contexts of art forms" (SLO 2, 3, 5 and 6 asks the student to utilize all of the components of Critical Thinking Skills. Students develop these essential skills alongside the course learning outcomes through a combination of short essay assignments, group discussions, a research-based paper and essay-based exams.

Problem Setting: Problem Setting and Evidence Acquisition are closely linked to each other and feed into one another. Through comparative study, research and use of visual literacy skills, students develop individualized questions that lead them to a well-informed set of positions to address their problem/thesis. Students are guided in this process (through faculty feedback) and practice this combination of component skills in a variety of ways in the course. For example, the Exam Study Guides provide parameters of study for the students to set the problem and acquire evidence for the exam. In order to successfully complete an exam, they work with the method of inquiry demonstrated in the course, asking themselves questions such as "What does the subject of the work of art tell me about the culture? How do I relate what I see in the sculpture to the technique and medium used to create it? What is the function of this work of art in society?" Please see ARTH 2120 Exam II attached.

Evidence Acquisition: This essential skill is a cornerstone of the course and students gain competency in acquiring evidence by drawing from a wide variety of sources: course reading, additional primary sources, documentary films, video demonstrations of techniques, online museum resources, etc. In this course, alongside the standard academic means to identify and gather information, visual literacy is developed and evaluated as a tandem skill necessary to address the problem. Students practice this visual method of inquiry through formal and iconographic analysis in essay assignments, group discussions, exams and research-based paper or project (See below). Students are asked to gather scholarly evidence to address questions posed, from their course readings, class lectures and discussions. Evidence Acquisition and Evaluation are evaluated in the rubric line “Critical Content.”

Evidence Evaluation: This component skill is closely tied to Information and Digital Literacy: Authority and Value of Information with the additional critical thinking requirement that the student “evaluate” evidence for credibility, truth and relevance. Students are consistently challenged to critically evaluate sources of information, in particular for credibility and relevance to the problem/thesis. In exams, students evaluate key elements of an image in order to determine its origin in time, culture and content. (Please see attached ARTH 2120 Exam II.) Several short writing assignments also give students practice in evaluating said evidence before applying this skill toward the research-based paper. For this paper, The Painter of Modern Life, students are required to critically read an excerpt from “The Painter of Modern Life,” 1863 by Charles Baudelaire and evaluate the ideal qualities the author defines for a Modern artist. In the paper, students are required to thoughtfully discuss three of these qualities, and one Modern artist and their work, in conjunction with the role of the artist in 19th c society.

Reasoning/Conclusion: Students learn to use this method in their own essays from the commentary by art historians, reasoning by other students of art history and faculty feedback. On an ongoing basis, students are asked to create a well-reasoned argument in relation to the evidence they gathered and evaluated for the purpose of addressing their question/problem. (See ARTH Exam II: Part III for an excellent example.) This essential skill is evaluated under the rubric “Synthesis/Engagement” on writing assignments and essay-based exam questions.

**Personal & Social Responsibility. *Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global***

*In this box, provide a narrative that explains how the proposed course addresses 2 of the components of personal & social responsibility.*

reasoning and intercultural competence: Students study the arts of multiple civilizations from the 14th c to the modern era, including but not limited to the cultures of Western Europe, aspects of some non-western cultures, and the United States. The course emphasizes the cultural and artistic influences of a civilization upon another civilization, i.e., the Protestant Reformation and Counter Reformation on the development of the arts of the Baroque period, from which students gain an understanding of the historical interdependence of cultural expression. In practice and with many opportunities to practice this skill, students compare and contrast works of art in writing and group discussions. This component skill is linked to the essential skill of civic discourse, knowledge and engagement.

Civic discourse, civic knowledge and engagement – local and global: This component skill is one the most tangible essential skills developed in the course and realized by the student. Through the contextual study of visual culture, students examine the political, social, spiritual, intellectual and cultural make-up of society and its effects upon the nature and production of art. For example, in a group discussion of the “Degenerate Art” exhibition, 1937 and upon viewing of a documentary film of this era, students discuss the exhibition, early 20th c modernism and avant-garde art, asking themselves and each other questions such as “What was the political nature of the exhibition? In what ways were modern art and avant-garde artistic ideas perceived? Which qualities of modern art were criticized and censored? How did German Expressionist artists respond? In what ways did this period affect the course of modern art? ” Students are exposed to multiple cultural systems and perspectives, which expands the possibility for students to create a dialog between the past and the present, places and people. This essential skill is evaluated under the rubric “Synthesis/Engagement.”

**Information & Digital Literacy. Authority and Value of Information; Digital Literacy; Information Structure; and Research as Inquiry**

*In this box, provide a narrative that explains how the proposed course addresses 3 of the components of digital literacy.*

and Value of Information: This essential skill is aligned with academic honesty in the ways students recognize the authorship of information (others and their own) and discern the value and validity of information and information systems for research-based inquiry. Students develop this skill in an ongoing and individualized basis through written work which requires evidence of reading the course materials and, when utilizing other sources, citing of authorship with proper citations.

Information Structures: Students are introduced to this skill through evidence evaluation and learn throughout the course ways in which to select, organize and share information they have gathered. Students are guided toward appropriate information structures for art historical inquiry in all assignments. This essential skill is assessed on writing assignments and exams in the rubric "Critical Content."

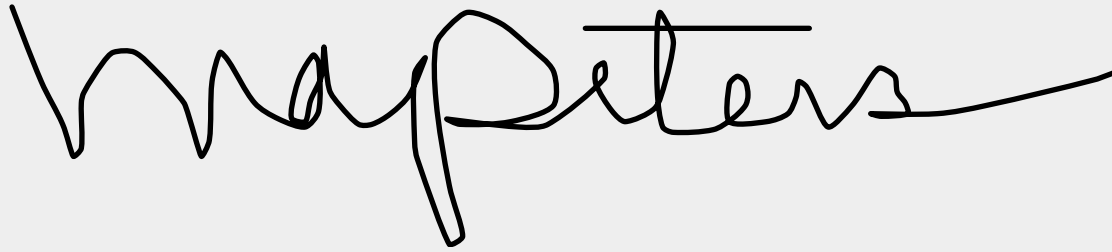
Research as Inquiry: This component skill is aligned with Critical Thinking Skills, in particular Evidence Acquisition and Evidence Evaluation, in that the gathering of information from a range of perspectives and sources is essential to the process of inquiry. Students are asked to be curious in their research and develop questions out of other questions that generate substantive ideas toward a reasonable explanation or multiple explanations. For example on exams (and study guides), students are posed with this question: "How might the subject exemplify beliefs or themes within the culture?" (Please see ARTH 2120 Exam II attached.) Students begin to ask themselves questions such as "What kind of cultural beliefs are represented in this work of art? Does this subject appear in other works we've studied? Is this a theme and what does it mean?" Students learn to use this open-ended method of inquiry demonstrated in lectures, discussions and all coursework.

#### D. Assessment Plan (Must be on file with HED by August 1, 2019)

Link to Institution's General Education Assessment Plan

<https://www.sfcc.edu/54536-2/>

This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).

A handwritten signature in black ink, appearing to read "M. Peters", is displayed on a light gray background.

Date

Mar 29 2021

## Upload Assessment

Completed - Mar 29 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

[SFCC\\_F20\\_ARTH2120\\_ExamII\\_Towers](#)

Filename: SFCC\_F20\_ARTH2120\_ExamII\_Towers.pdf Size: 397.4 kB

## Upload Rubric

Completed - Mar 29 2021

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

[ARTH 2120 Rubric for essays & essay questions Critical Thinking](#)

Filename: ARTH\_2120\_Rubric\_for\_essays\_\_essay\_\_kakFULY.pdf Size: 39.1 kB

**Application: 0000001522**

## Summary

**ID:** 0000001522

**Status:** Under Review

**Last submitted:** Mar 29 2021 03:37 PM (MDT)

## Application Form

**Completed** - Mar 29 2021

## Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

### Contact Information

Name	Michael Bilopavlovich
Title	Faculty
Phone	5754614413 ext. 150
Email	<a href="mailto:michaelb@mesalands.edu">michaelb@mesalands.edu</a>

### Submitting Institution

Name of HEI	Mesalands Community College
Submitting Department	Academic Affairs

### Chief Academic Officer

Name	Natalie Gillard
Email	<a href="mailto:natalieg@mesalands.edu">natalieg@mesalands.edu</a>

## Registrar

Name	Forrest Kaatz
Email	<a href="mailto:forrestk@mesalands.edu">forrestk@mesalands.edu</a>

### Is this application for your entire system (ENMU, NMSU, & UNM)?

No

## Institutional Course Information

Prefix	HIST
Number	121
Title	Survey of Western Civilization I
Number of credits	3

### Was this course previously part of the New Mexico General Education curriculum?

Yes

## Co-requisite Course

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)



New Mexico Common Course Information

Prefix	HIST
Number	1150
Name	World History I

A. Content Area and Essential Skills

To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Humanities - Information & Digital Literacy, Critical Thinking, Personal & Social Responsibility

B. Learning Outcomes

## List all common course student learning outcomes for the course.

Common Course Student Learning Outcomes (find Common Course SLOs at:

<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

1. Students will be able to EXPLAIN in their work how humans in the past shaped their own unique historical moments and were shaped by those moments, and how those cultures changed over the course of the centuries for the history of the western world from ancient times to the early modern era.  
Bloom Taxonomy's Cognitive Process: REMEMBER AND UNDERSTAND
2. Students will DISTINGUISH between primary and secondary sources, IDENTIFY and EVALUATE evidence and EMPATHIZE with people in their historical context.  
Bloom Taxonomy's Cognitive Process: ANALYZE, REMEMBER, EVALUATE, CREATE
3. Students will SUMMARIZE and APPRAISE different historical interpretations and evidence in order to CONSTRUCT past events.  
Bloom Taxonomy's Cognitive Process: UNDERSTAND, EVALUATE, APPLY
4. Students will IDENTIFY historical arguments in a variety of sources and EXPLAIN how they were constructed, EVALUATING credibility, perspective, and relevance.  
Bloom Taxonomy's Cognitive Process: REMEMBER, UNDERSTAND, EVALUATE
5. Students will CREATE well-supported historical arguments and narratives that demonstrate an awareness of audience.  
Bloom Taxonomy's Cognitive Process: CREATE, APPLY
6. Students will APPLY historical knowledge and historical thinking "in order to infer what drives and motivates human behavior in both past and present."  
Bloom Taxonomy's Cognitive Process: APPLY, ANALYZE 14

---

## Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

N/A

## C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

### **Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.**

*In this box, provide a narrative that explains how the proposed course addresses **all** of the components of critical thinking.*

Students will be given historical problems to analyze either through discussions, journals, or a paper. They will have to use creative skills and critical thinking as they work through these problems. In the discussions, students will be asked to describe the problem as it exists in History as well as to compare this problem to another problem in history or to current problems in our society. Students will at times wrestle with cognitive dissonance as they learn about more history, which is sometimes different from stories they grew up with. They must use critical thinking to develop new understanding of the material and to articulate that understanding in new ways.

Students will, during the course of discussion, evaluate each others' arguments and bring in research of their own to move the conversation forward in an academic way. In this collaborative approach, students will be exposed to new ideas and must find a way to reconcile them with scholarly conversation. Students will reason through their own arguments and the arguments of their peers, coming to new conclusions. In their own research, students will need to evaluate sources based upon historical accuracy and trustworthiness so that they can make sound arguments in discussions and the paper. In the journaling activities, students will use their critical thinking to understand a specific event or series of events they found interesting and articulate how they came to a new understanding of the material.

**Personal & Social Responsibility. *Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global***

*In this box, provide a narrative that explains how the proposed course addresses 2 of the components of personal & social responsibility.*

Due to the nature of historical inquiry, students necessarily will interact with societal and cultural situations. Through their study of this historical time period, they will need to evaluate social and cultural mores both as they existed in the past and how they are viewed in today's world. Students are expected to be respectful and thoughtful as they explore these topics and to be sensitive to others' worldviews as they discuss social issues. Sometimes in culture, there are those who live and think very differently to ourselves, and students will discuss these topics in a professional and academic manner. Students will study various techniques those in the past had for solving environmental problems such as farming using irrigation, road building, urbanization or pollution; discovering that sometimes past methods were brought forward in history to still be used in the modern day.

In the study of subaltern history, (the history of minority groups such as Native Americans, women, African Americans, and the LGBTQ community) students will be able to evaluate the treatment of those cultures and how that treatment has changed over time, touching on societal ethics' failures and triumphs. Students will evaluate reasons for the marginalization of other cultures through Anglo ethnocentricity, Paternalism, and Patriarchy; and will work collaboratively to reason through cultural differences by the use of academic discussions. At times, they will be asked to bring personal anecdotes to the discussion, enabling a more intimate discussion through specific examples. Through journaling, students will discuss their personal experiences with history, discovering and reasoning through their own biases. Students will understand that by studying history, we can better understand the problems of the present.

**Information & Digital Literacy. Authority and Value of Information; Digital Literacy; Information Structure; and Research as Inquiry**

*In this box, provide a narrative that explains how the proposed course addresses **3** of the components of digital literacy.*

In this day and age, most students are familiar with the internet and computers. Students will turn in all their work online, and so will need to be able to navigate the class website in order to successfully complete their assignments. Because this is an online course, the students will need to be comfortable with digital literacy and able to find information on the internet. Students will be able to do their research online as well as using primary documents based on the Word Wide Web that will be provided by their instructor. The class uses Youtube videos to illustrate some concepts, as well as using primary sources published by universities, so the internet is instrumental in providing much ancillary information to the class.

Students will become more and more familiar with use of the school website as they progress through the class, learning different ways to turn in their work. They will understand that not all websites are trustworthy for historical information as some may have been written in an “armchair” fashion by non-experts, or they may belong to organizations who have a bias toward funneling their readers toward the organization as in the case of tourism-based websites who are attempting to bring business toward their community. Students will learn, following their instructor’s examples, how to evaluate information they find on the internet so that they can integrate it into their work. Students will be expected to properly cite sources they bring from the internet for evaluation by the instructor to ensure historical accuracy.

---

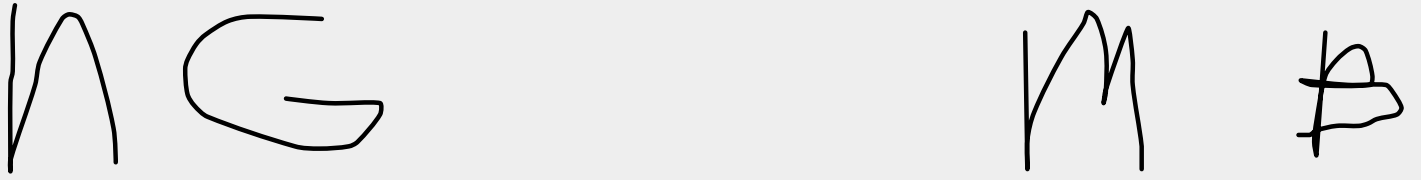
**D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

<https://www.mesalands.edu/wp-content/uploads/2020/01/SLAC-Annual-Report-2018-19-Final.pdf>

---

This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).



**Date**

Mar 29 2021

## Upload Assessment

**Completed** - Mar 29 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

[HIST 1150 Sample Assessment Assignment](#)

**Filename:** HIST\_1150\_Sample\_Assessment\_Assignment.pdf **Size:** 91.9 kB

## Upload Rubric

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

# Application: 0000001425

Robert Moore - Robert.Moore@rm01.enmuros.cc.nm.us  
NM General Education Curriculum

**Summary**

**ID:** 0000001425

**Status:** Under Review

**Last submitted:** Mar 25 2021 11:03 AM (MDT)

## Application Form

**Completed** - Mar 25 2021

# Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout

the course.

### Contact Information

Name	Robert Moore
Title	Assistant VP
Phone	5756247001
Email	<a href="mailto:robert.moore@roswell.enmu.edu">robert.moore@roswell.enmu.edu</a>

### Submitting Institution

Name of HEI	ENMU-Roswell
Submitting Department	Science

### Chief Academic Officer

Name	Annemarie Oldfield
Email	<a href="mailto:annemarie.oldfield@roswell.enmu.edu">annemarie.oldfield@roswell.enmu.edu</a>

### Registrar

Name	Linda Neel
Email	<a href="mailto:linda.neel@roswell.enmu.edu">linda.neel@roswell.enmu.edu</a>

### Is this application for your entire system (ENMU, NMSU, & UNM)?

No

### Institutional Course Information



Prefix	PHYS
Number	1115
Title	Survey of Physics
Number of credits	3

**Was this course previously part of the New Mexico General Education curriculum?**

No

### Co-requisite Course

Prefix	PHYS
Number	1115L
Title (if applicable)	Survey of Physics Lab

### New Mexico Common Course Information

Prefix	PHYS
Number	1115
Name	Survey of Physics Lecture + Lab

### A. Content Area and Essential Skills

**To which area should this course be added?**

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Science - Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning

## B. Learning Outcomes

---

**List all common course student learning outcomes for the course.**

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

Upon completion of this course, the student will be able to: 1. Apply concepts of classical mechanics (such as velocity, acceleration, force, inertia, momentum, torque, work, energy) to simple static and dynamic systems. 2. Apply concepts of thermodynamics (such as heat, temperature, internal energy, entropy) to simple processes. 3. Apply concepts of electricity and magnetism (such as fields, potential, charge conservation, static and dynamic induction) to simple circuits, motors, and other simple electrical contrivances. 4. Apply simple geometric and wave optics in simple situations.

---

### **Institution-specific Student Learning Outcomes**

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

Optional: 1. Apply quantum theory in simple situations such as the Bohr model of the atom, dual nature of light, atomic spectra. 2. Apply simple concepts of relativity.

---

## C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

**Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of critical thinking.*

By the end of this course students will be required to exercise a high level of critical thinking skills in solving application problems dealing with Newtonian motion, circular motion, and free body diagrams. For example, students might be asked to find the final velocity of an object in free fall just before it hits the ground. Students will need to apply equations of freefall as well as identifying the variables and the constants in the given equations. As is typical in most college level physics courses, the students will need to identify the correct equation to apply in a given situation, making sure the units are proper and the answer makes sense. Physics problems can vary in difficulty, but generally require a high level of inductive and deductive reasoning and critical thinking. Because the variety of problems are vast, it is especially important to understand and apply the correct formula to the physical situation being described. Each week students will have homework that relates to the lecture and these assignments require critical thinking skills. Finally, students will be assessed for critical thinking at the end of the course by means of a final exam that covers content and the skills developed throughout the semester. The learning outcomes vary from chapter to chapter, but critical thinking is the basis for physics.

**Quantitative Reasoning. Communication/Representation of Quantitative Information; Analysis of Quantitative Arguments; and Application of Quantitative Models**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of quantitative reasoning.*

By the end of this course students will have to demonstrate a mastery of a variety of quantitative skills related to physics. Physics is probably the scientific field most dependent on mathematics and quantitative literacy. Students will be working a multitude of problems involving detailed calculations that require basic math skills to complex problems like solving roots of quadratic equations to find the time needed for an object to reach a certain height, when only the force of gravity acts on a body. These computations are essential in solving all kinds of physics problems from motion in one dimension, motion in two dimensions, force diagrams, vectors, rotational velocity and acceleration, etc. Students will work assigned problems as homework and we will often discuss solutions and the steps to solution for difficult problems. In addition, an awareness of the units and their meanings is important in communicating the solution. Likewise, statistically calculations, like mean and standard deviation, are required in the physics lab. The manner in which these skills are assessed are primarily through homework, formal summative assessments at the end of each chapters/modules; In addition to homework and chapter tests, learning is assessed through a comprehensive final exam at the end of the semester.

**Personal & Social Responsibility. *Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global***

*In this box, provide a narrative that explains how the proposed course addresses 2 of the components of personal & social responsibility.*

In keeping with the advice of the Association of American Colleges and Universities (AAC&U); ENMUR science courses aspire to foster and form in our students: (1) a striving for excellence, by developing a strong work ethic, (2) acting on a sense of personal and academic integrity, ranging from honesty to moral principles of ethics and character development, (3) contribution to a larger community, now and in the future, (4) taking serious the perspective of others (5) ethical and moral reasoning. The key to this part of education is the fact that our Physics courses integrate these outcomes into our classroom discussions and laboratory experiments. Having clear deadlines and classroom expectations inherently develops a strong work ethic and time management skills needed for life and employment. Our expectation to complete one's own homework and tests is explicitly stated in our Student Handbook and syllabus, while making room for collaboration. This collaboration is most clearly seen during physics lab time, when students engage in conversation, share ideas, challenge assumptions, problem solve by listening to other's opinions, and coming to a solution that works for all. Lastly, while classroom lectures and conversations tend to be centered around content of the physical world, the motion of bodies, and the forces at work in our Universe, we do allow time for thought about how this all contributes to the greater human experience of exploration of the unknown, development of technologies that bring advancement to our society, and a general sense of one's own responsibility to the planet, the plant and animal kingdom, and humanity itself. These skills are developed through reflective articles like the one cited below. These papers are collected and time for discussion is allowed during class, at least once a semester.

#### **D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

[https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan\\_ENMURoswell.pdf](https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan_ENMURoswell.pdf)

**This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).**

A handwritten signature in black ink, appearing to read "RM / AMO", is displayed on a light gray background.

**Date**

Mar 12 2021

## **Upload Assessment**

**Completed** - Mar 12 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

### **PHYS 1115 HW 1**

**Filename:** PHYS\_1115\_HW\_1.pdf **Size:** 502.6 kB

## **Upload Rubric**

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

**Application: 0000001423**

## Summary

**ID:** 0000001423

**Status:** Under Review

**Last submitted:** Mar 25 2021 10:56 AM (MDT)

## Application Form

**Completed** - Mar 25 2021

## Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

### Contact Information

Name	Robert Moore
Title	Assistant VP
Phone	5756247001
Email	<a href="mailto:robert.moore@roswell.enmu.edu">robert.moore@roswell.enmu.edu</a>

### Submitting Institution

Name of HEI	ENMU-Roswell
Submitting Department	Science

### Chief Academic Officer

Name	Annemarie Oldfield
Email	<a href="mailto:annemarie.oldfield@roswell.enmu.edu">annemarie.oldfield@roswell.enmu.edu</a>



## Registrar

Name	Linda Neel
Email	<a href="mailto:linda.neel@roswell.enmu.edu">linda.neel@roswell.enmu.edu</a>

### Is this application for your entire system (ENMU, NMSU, & UNM)?

No

### Institutional Course Information

Prefix	PHYS
Number	1230
Title	Algebra-based Physics I
Number of credits	3

### Was this course previously part of the New Mexico General Education curriculum?

Yes

### Co-requisite Course

Prefix	PHYS
Number	1230L
Title (if applicable)	Algebra-based Physics I Lab

## New Mexico Common Course Information

Prefix	PHYS
Number	1230
Name	Algebra-based Physics I Lecture + Lab

### A. Content Area and Essential Skills

#### To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Science - Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning

### B. Learning Outcomes

#### List all common course student learning outcomes for the course.

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

1. Demonstrate converting units and other aspects of dimensional analysis in the working of numerical problems. 2. Apply principles of Newtonian mechanics to predict and account for simple phenomena modeled by the motion of particles in one and two dimensions. 3. Apply principles of Newtonian mechanics to predict and account for simple phenomena modeled by the motion of a rigid body in two dimensions. 4. Apply Newton's theory of gravitation to circular orbits and demonstrate understanding of how Kepler's laws of planetary motion provide the empirical foundation for Newton's theory. 5. Apply the mathematics of vectors to the principles of Newtonian mechanics. 6. Apply principles of Newtonian mechanics to the case of static and dynamic incompressible fluids, including Archimedes's and Bernoulli's principles.

## Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

1. Describe the fundamental properties of periodic motion.
2. Explain and apply the basic concepts of sound and wave motion.
3. Explain the basic concepts of heat and thermodynamics.

---

### C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

**Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of critical thinking.*

By the end of this course students will be required to exercise a high level of critical thinking skills in solving application problems dealing with Newtonian motion, circular motion, and free body diagrams. For example, students might be asked to find the final velocity of an object in free fall just before it hits the ground. Students will need to apply equations of freefall as well as identifying the variables and the constants in the given equations. As is typical in most college level physics courses, the students will need to identify the correct equation to apply in a given situation, making sure the units are proper and the answer makes sense. Physics problems can vary in difficulty, but generally require a high level of inductive and deductive reasoning and critical thinking. Because the variety of problems are vast, it is especially important to understand and apply the correct formula to the physical situation being described. Each week students will have homework that relates to the lecture and these assignments require critical thinking skills. Finally, students will be assessed for critical thinking at the end of the course by means of a final exam that covers content and the skills developed throughout the semester. The learning outcomes vary from chapter to chapter, but critical thinking is the basis for physics.

**Quantitative Reasoning. Communication/Representation of Quantitative Information; Analysis of Quantitative Arguments; and Application of Quantitative Models**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of quantitative reasoning.*

By the end of this course students will have to demonstrate a mastery of a variety of quantitative skills related to physics. Physics is probably the scientific field most dependent on mathematics and quantitative literacy. Students will be working a multitude of problems involving detailed calculations that require basic math skills to complex problems like solving roots of quadratic equations to find the time needed for an object to reach a certain height, when only the force of gravity acts on a body. These computations are essential in solving all kinds of physics problems from motion in one dimension, motion in two dimensions, force diagrams, vectors, rotational velocity and acceleration, etc. Students will work assigned problems as homework and we will often discuss solutions and the steps to solution for difficult problems. In addition, an awareness of the units and their meanings is important in communicating the solution. Likewise, statistically calculations, like mean and standard deviation, are required in the physics lab. The manner in which these skills are assessed are primarily through homework, formal summative assessments at the end of each chapter/module. In addition to homework and chapter tests, learning is assessed through a comprehensive final exam at the end of the semester.

**Personal & Social Responsibility. *Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global***

*In this box, provide a narrative that explains how the proposed course addresses 2 of the components of personal & social responsibility.*

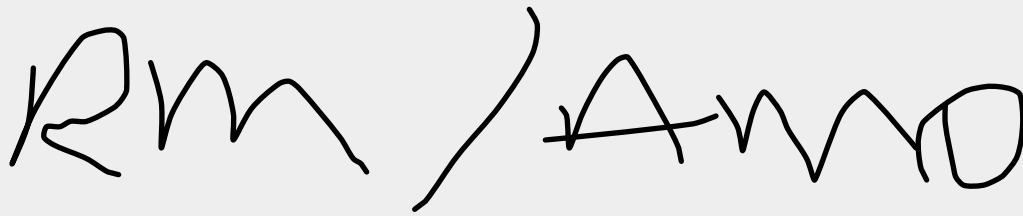
In keeping with the advice of the Association of American Colleges and Universities (AAC&U); ENMUR science courses aspire to foster and form in our students: (1) a striving for excellence, by developing a strong work ethic, (2) acting on a sense of personal and academic integrity, ranging from honesty to moral principles of ethics and character development, (3) contribution to a larger community, now and in the future, (4) taking serious the perspective of others (5) ethical and moral reasoning. The key to this part of education is the fact that our Physics courses integrate these outcomes into our classroom discussions and laboratory experiments. Having clear deadlines and classroom expectations inherently develops a strong work ethic and time management skills needed for life and employment. Our expectation to complete one's own homework and tests is explicitly stated in our Student Handbook and syllabus, while making room for collaboration. This collaboration is most clearly seen during physics lab time, when students engage in conversation, share ideas, challenge assumptions, problem solve by listening to other's opinions, and coming to a solution that works for all. Lastly, while classroom lectures and conversations tend to be centered around content of the physical world, the motion of bodies, and the forces at work in our Universe, we do allow time for thought about how this all contributes to the greater human experience of exploration of the unknown, development of technologies that bring advancement to our society, and a general sense of one's own responsibility to the planet, the plant and animal kingdom, and humanity itself. These skills are developed through reflective articles like the one cited below. These papers are collected and time for discussion is allowed during class, at least once a semester.

## D. Assessment Plan (Must be on file with HED by August 1, 2019)

Link to Institution's General Education Assessment Plan

[https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan\\_ENMURoswell.pdf](https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan_ENMURoswell.pdf)

**This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).**

A handwritten signature in black ink, appearing to read "Rm / Anm", is displayed on a light gray background.

**Date**

Mar 11 2021

## Upload Assessment

**Completed** - Mar 11 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

### [PHYS 1230 HW 1](#)

**Filename:** PHYS\_1230\_HW\_1.pdf **Size:** 502.6 kB

## Upload Rubric

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

# Application: 0000001319

Philip Baca - baca@nmmi.edu  
NM General Education Curriculum

## Summary

**ID:** 0000001319

**Status:** Under Review

**Last submitted:** Apr 5 2021 03:07 PM (MDT)

## Application Form

**Completed** - Apr 5 2021

## Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course



# Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

## Contact Information

Name	PHILIP BACA
Title	Associate Dean of Social Sciences
Phone	5756248497
Email	<a href="mailto:baca@nmml.edu">baca@nmml.edu</a>

## Submitting Institution

Name of HEI	New Mexico Military Institute
Submitting Department	Business Administration

## Chief Academic Officer

Name	Douglas J. Murray, PhD
Email	<a href="mailto:DMurray@NMML.edu">DMurray@NMML.edu</a>

## Registrar

Name	Chris Wright
Email	<a href="mailto:Wright@NMML.edu">Wright@NMML.edu</a>

### Is this application for your entire system (ENMU, NMSU, & UNM)?

(No response)

### Institutional Course Information

Prefix	GEOG
Number	2140
Title	Economic Geography
Number of credits	3

### Was this course previously part of the New Mexico General Education curriculum?

Yes

### Co-requisite Course

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)

### New Mexico Common Course Information

Prefix	GEOG
Number	2140
Name	Economic Geography

### A. Content Area and Essential Skills

## To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Social & Behavioral Sciences - Communication, Critical Thinking, Personal & Social Responsibility

## B. Learning Outcomes

**List all common course student learning outcomes for the course.**

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

### Student Learning Outcomes

1. Explain the free market economy and its place in the global economy (NMMI Obj. 1,2,3,8,10)
2. Demonstrate knowledge of micro and macro-economic issues affecting allocation decisions (NMMI Obj. 2,3)
3. Categorize the factors of production and factor markets; (NMMI Obj. 2)
4. Support the four types of market structures, the conditions necessary for each to exist and the behaviors of each within the market; (NMMI Obj. 2)
5. Define an economic landscape.
6. Explain sectors of the economy and identify locations on the earth's surface and give examples where each sector is important to an economic system.
7. Define, explain and apply central place theory to systems of cities and local tertiary activities.
8. Define and modify von Thuen's land rent model so that it may be used to analyze an urban landscape

## Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

There are no additional Student Learning Outcomes.

---

### C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

**Communication. Genre and Medium Awareness, Application and Versatility; Strategies for Understanding and Evaluating Messages; and Evaluation and Production of Arguments.**

*In this box, provide a narrative that explains how the proposed course addresses **all** of the components of communication.*

Genre and Medium Awareness Application and Versatility: Discussions (both online and in-class) require students to respond to videos, textbook content or course prompts. Weekly written assignments require students to summarize, analyze and or reflect on assigned readings from textbooks, journal articles or relevant videos. Regularly, students are given a prompt/question/real-world scenario and are asked to explain and illustrate by creating a brief presentation to share with their classmates. Students also take chapter quizzes to communicate what they have learned about the course content. Students communicate what they have learned in a variety of ways including discussion (online or in class), article analysis in which students are expected to apply what they have learned about course concepts to real-world examples; summary and response papers where students read a journal article or watch a relevant video and summarize the main points and reflect on the application of the content to the real world.

Strategies for Understanding and Evaluating Messages: Throughout the semester students are given articles where they identify the author's main points and evidence. The students are then required to identify counter points along with evidence to support those points. Students must also show that they understand the points by critically evaluating the points for audience, purpose, and context.

Evaluation and Production of Arguments: Throughout the semester students will evaluate sources and the validity of their claims while working with case studies, in-class discussions, and article analysis. Students will support their own claims with valid sources that must be cited using MLA citations.

Students will be assessed throughout the semester through case study write-ups and article analysis.

---

**Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.**

*In this box, provide a narrative that explains how the proposed course addresses **all** of the components of critical thinking.*

Concentrates on economic patterns. The course introduces several theories of economic activity: general theory of land use, agricultural location theory, plant location theory, central place theory; with emphasis on cultural economic relationships.

**Problem Setting** - Every chapter in the textbook has case briefs that require students to identify the economic issues. As students read the briefs they are taking note of the economic problems or questions for each situation. The students are asked to state the economic problem or question in their own words and ensuring that the appropriate context of the situation is understood. There are also full case studies connected to each chapter that is used to reinforce this skill.

**Evidence Acquisition** - The case studies that are used to reinforce the chapter material require students to identify relevant information and data that can be used to address the economic problem or question. Case studies often times contain noise (information and data that is not relevant to the economic problem or question), students often times have a hard time sorting through the relevant and irrelevant information and data. As they progress through the semester and work with more case studies they improve this skill.

**Evidence Evaluation** - Throughout the semester students are given articles from journals, newspapers, and the internet. Students must evaluate the article and discuss the validity of the author, author's thesis, and the author's conclusion. This requires the students to evaluate the evidence and data for credibility, bias, and validity.

**Reasoning/Conclusion** - Students throughout the semester, while working with the briefs, articles, and case studies develop conclusions, solutions, and outcomes. These conclusions are based on the economic problems or questions they developed and, the relevant information and data gathered. The conclusions should reflect an informed, well-reasoned evaluation. The more students work through the economic situations their evaluations improve.

**Assessment** - Critical thinking is assessed throughout the semester on exams, article analysis, and case study write-ups. Exams contain short answer questions that contain economic situations and students must identify the economic problems or questions as well as identify possible solutions. Article analysis and case study write-ups require students to evaluate evidence and develop informed, well-reasoned conclusions.

**Personal & Social Responsibility. *Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global***

*In this box, provide a narrative that explains how the proposed course addresses **2** of the components of personal & social responsibility.*

Ethical Reasoning - Students analyze ethical issues that arise from economic activity and general land use. Students use ethical principles of right and wrong, morality and immorality, good and bad to explain ethical issues and propose solutions. Students use techniques of moral reasoning and argumentation necessary to analyze moral issues in economics, apply general ethical principles, and understand current moral issues in economics. This is done throughout the course using briefs, articles, and case studies for reinforcement.

Collaboration Skills, teamwork, and values systems - Demonstrate effective and ethical collaboration in support of meeting identified group goals. (Accountability is implied with “ethical.”) Students demonstrate effective and ethical collaboration through group case study presentations. Students must present a case study in class. The presentation must identify the main issue or problem, analyze all economic issues, comment on effective solutions and strategies, and link the case study to course readings and additional research.

Assessment – Assessment of personal and social responsibility is done throughout the semester using exams and the group case study presentations. The exams contain questions dealing with ethical issues and students must demonstrate the use of moral reasoning and argumentation to analyze these ethical issues. The group case study presentation assesses the students’ collaboration skills and teamwork.

#### **D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

<https://www.nmmi.edu/assessment-plans/>

This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).



**Date**

Apr 5 2021

## Upload Assessment

**Completed** - Apr 5 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

[Economic Geography critical-analysis-rubric](#)

**Filename:** Economic\_Geography\_critical-analysis-rubric.pdf **Size:** 283.3 kB

## Upload Rubric

**Completed** - Apr 5 2021

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

[Economic Geography critical-analysis-rubric](#)

**Filename:** Economic\_Geography\_critical-analysi\_dco5aQF.pdf **Size:** 283.3 kB

# Application: 0000001457

Dinah Hamilton - dinah.hamilton@enmu.edu  
NM General Education Curriculum

**Summary**



**ID:** 0000001457

**Status:** Under Review

**Last submitted:** Mar 24 2021 12:34 PM (MDT)

## Application Form

**Completed** - Mar 24 2021

## Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

### Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

### Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

### Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

### Contact Information

Name	Dinah Hamilton
Title	Department Chair
Phone	(575) 315-1160
Email	<a href="mailto:Dinah.Hamilton@enmu.edu">Dinah.Hamilton@enmu.edu</a>

### Submitting Institution

Name of HEI	ENMU-Ruidoso
Submitting Department	History, Humanities and Social Sciences

### Chief Academic Officer

Name	Coda Omness
Email	<a href="mailto:Coda.Omness@enmu.edu">Coda.Omness@enmu.edu</a>

### Registrar

Name	Amy Means
Email	<a href="mailto:Amy.Means@enmu.edu">Amy.Means@enmu.edu</a>

**Is this application for your entire system (ENMU, NMSU, & UNM)?**

No

**Institutional Course Information**

Prefix	SOCI
Number	2310
Title	Contemporary Social Problems
Number of credits	3

**Was this course previously part of the New Mexico General Education curriculum?**

Yes

**Co-requisite Course**

Prefix	ENGL
Number	1110
Title (if applicable)	Composition 1

**New Mexico Common Course Information**

Prefix	SOCI
Number	2310
Name	Contemporary Social Problems

**A. Content Area and Essential Skills**

## To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Social & Behavioral Sciences - Communication, Critical Thinking, Personal & Social Responsibility

## B. Learning Outcomes

### List all common course student learning outcomes for the course.

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

1. Identify and explain major social problems in the United States, and how social problems become constructed as problems.
2. Describe and analyze policy related solutions associated with social problems from various perspectives.
3. Critically examine social problems through the use of sociological theories, methods, and empirical techniques.
4. Identify connections, both national and global between social problems and social inequities (e.g. social class, race/ethnicity, and gender/sexuality).

### Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

NA

## C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

**Communication. Genre and Medium Awareness, Application and Versatility; Strategies for Understanding and Evaluating Messages; and Evaluation and Production of Arguments.**

*In this box, provide a narrative that explains how the proposed course addresses **all** of the components of communication.*

Throughout the semester students are required to discuss and debate critical social challenges, perspectives, worldviews, and policies, on a range of social problems facing the world. Students explore creative alternatives and solutions found both domestically and internationally which might reasonably be adapted to address contemporary social challenges. Students are introduced to genre and medium awareness as part of a larger discussion of how social issues are presented through propaganda, “kitchen-table” platforms of social media versus politicians, academicians and foreign leaders.

Student assignments use case studies, course communications, course discussion postings, and annotations of professional articles. All students will participate in course discussion forums and provide peer and instructor feedback regarding discussion topics, postings, and issues. Students use MLA formatting for all papers, and must cite any quoted material within discussion forums.

Students use peer-reviewed data sources and statistics from governmental or professional institutions. They are required to formulate arguments and conclusions based on sound data within the discussion forums, and to cite their sources according to MLA standards. Within the discussion forum, they may be challenged by the instructor or other students to factor in other issues or data as part of the reasoning process.

Guidelines presented by the instructor encourage participation by all students, cultural sensitivity in

remarks, and the consideration of varied viewpoints. Peer-reviewed articles, court opinions, and op-ed pieces by respected contemporary thinkers provide a varied and reasoned backdrop for ethical discussions and papers. The instructor provides informal feedback and factors for additional consideration throughout discussions.

Students examine websites of extreme bias to identify agendas, use fact-checking bibliographies to harvest primary evidence sources, and use award-winning journalism to build arguments. They also must utilize peer-reviewed articles to develop strong annotated bibliographies as foundations for their own conclusions. Finally, they are required to use primary sources from governmental and non-governmental organizations to explore current and past legislation on issues under discussion.

***Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.***

*In this box, provide a narrative that explains how the proposed course addresses all of the components of critical thinking.*

Students will prepare a paper demonstrating an understanding of the difference between an unsupported opinion or bias, and a position supported by researchable facts from reliable and reputable sources.

The course research paper is developed from a topic list is provided by the instructor, and includes two segments. The first segment is an annotated bibliography of the five peer-reviewed sources that will be used for the final paper. The annotated articles must include two pro, two con, and one neutral article. These choices offer an opportunity to develop evidence

acquisition skills. The final paper integrates the articles into a conclusion in which they evaluate the article content for credibility, bias, accuracy, and relevance to the topic. These assignments dovetail to help students differentiate fact from myth/opinion and propaganda. The two assignments require students to set aside simplistic sound bites in favor of scholarly explorations of socio-cultural and political issues.

Students will demonstrate an understanding of the difference between an unsupported opinion or bias, and a position supported by researchable facts from reliable and reputable sources.

The course begins by exploring ideological influences that impact perception, presentation, and solutions for contemporary social problems. Here, students explore the influence of religious and political lenses as they relate to world view, bias, and civil discourse surrounding responsible approaches to social issues, such as a determination that a problem exists at all, whether it broadly affects society, as well as causes and solutions. Student discussions apply these measures to each module, assessing relevancy in terms of moral, democratic, and social perspectives. Additional foundations for the exploration of social problems includes ethical engagement, economic motivations and political pressures.

From this academic posture, students explore issues such as racial tensions, family structures, healthcare, population/migration, criminal justice, and education. As each new module is introduced and assessed, students discuss areas of intersectionality with previous issues studied.

**Personal & Social Responsibility. Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global**

*In this box, provide a narrative that explains how the proposed course addresses 2 of the components of personal & social responsibility.*

Each student discussion exercise requires a 250 word primary post and at least two 150 responses to their peers demonstrating their understanding of social challenges, perspectives, worldviews, and policies. Students are to look at creative alternatives and solutions found both domestically and globally which might reasonably be adapted to address the most challenging social issues of our times.

Each module focuses on individual contributions and social responsibilities. Discussion prompts emphasize examples drawn from current events which shift according to the national focus of attention during the course. This allows the course to remain relevant in real time, and to demonstrate the importance of personal and social responsibility as it relates to the issue of the day. For instance, during contemporary discussions within the module on racial tensions, white supremacy and voter suppression may receive more focus than interracial marriage. In the current climate, violence against Asians might also be highlighted. Discussions on healthcare might center on the intersectionality of the pandemic with insurance, medical response, social responsibility economic allocations, and workplace safety, whereas pre-pandemic, these considerations might have been addressed within the context of the Affordable Care Act.

Guidelines presented by the instructor encourage participation by all students, cultural sensitivity in remarks, and the consideration of varied viewpoints. Peer-reviewed articles, court opinions, and respected op-ed pieces by contemporary thinkers are required to all provide a varied and reasoned backdrop for ethical discussions and papers. The instructor provides informal feedback and factors for additional consideration throughout discussions.



#### D. Assessment Plan (Must be on file with HED by August 1, 2019)

Link to Institution's General Education Assessment Plan

The assessment plan is currently under construction and will be available on the college website.

**This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).**



**Date**

Mar 24 2021

## Upload Assessment

**Completed** - Mar 24 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

### [SOCI 2310 Belief Systems](#)

**Filename:** SOCI\_2310\_\_Belief\_Systems.pdf **Size:** 185.9 kB

## Upload Rubric

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

**Application: 0000001497**

## Summary

**ID:** 0000001497

**Status:** Under Review

**Last submitted:** Mar 29 2021 05:23 PM (MDT)

## Application Form

**Completed** - Mar 29 2021

## Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

### Contact Information

Name	Theresa Apodaca
Title	Instructor
Phone	575-517-9159
Email	<a href="mailto:Theresa.apodaca@nmt.edu">Theresa.apodaca@nmt.edu</a>

### Submitting Institution

Name of HEI	New Mexico Institute of Mining and Technology
Submitting Department	Department of Communication, Liberal Arts and Social Sciences

### Chief Academic Officer

Name	Dr. Steve Simpson
Email	<a href="mailto:steve.simpson@nmt.edu">steve.simpson@nmt.edu</a>

## Registrar

Name	James Scott
Email	<a href="mailto:james.scott@nmt.edu">james.scott@nmt.edu</a>

## Is this application for your entire system (ENMU, NMSU, & UNM)?

(No response)

## Institutional Course Information

Prefix	THEA
Number	1210
Title	Introduction to Acting
Number of credits	3

## Was this course previously part of the New Mexico General Education curriculum?

No

## Co-requisite Course

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)

## New Mexico Common Course Information

Prefix	THEA
Number	1210
Name	Introduction to Acting

### A. Content Area and Essential Skills

---

#### To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Creative & Fine Arts - Communication, Critical Thinking, Personal & Social Responsibility

---

### B. Learning Outcomes

---

#### List all common course student learning outcomes for the course.

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

THEA 1210 Introduction to Acting

---

## Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

1. Develop fundamental physical, vocal, analytical, and imaginative skills for acting for the stage.
2. Apply fundamental techniques of voice and movement for the stage.
3. Apply principles of play text analysis to understand story, character, and meaning.
4. Gain a better understanding of an actor's approach to goals, tactics, and obstacles.
5. Engage in character creation and development while preparing and performing in scenes from various plays.
6. Learn a common vocabulary to help discuss the process of acting.
7. Employ collaborative methods of work with a partner and in groups.
8. Observe and evaluate acting skills of other actors.

---

### C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

**Communication. Genre and Medium Awareness, Application and Versatility; Strategies for Understanding and Evaluating Messages; and Evaluation and Production of Arguments.**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of communication.*

Acting incorporates many of the skills needed for communication. The purpose of a performance is to entertain the audience; therefore, through a variety of games, activities, and exercises students will develop an awareness of individual and ensemble physicality in order to communicate emotion, thought and aesthetic intention for the audience. Technique is the core of any art form but the more actors know about genre awareness of history, philosophy, and the world in general, the more background they can bring to their roles. Strategies for understanding and evaluating messages so that they are clear to the audience are taught through body language, speech (articulation and enunciation) and listening exercises. For everyone to be on the same page, common vocabulary will be used to help discuss the process of acting (for example: improvisation, body positions, and areas on the stage). Improvisation exercise will help develop fundamental physical, vocal, analytical, and imaginative skills. Students will explore the idea of why it's important for characters to have objectives and gain a better understanding of an actor's approach to goals, tactics, and obstacles through various skits. Students will engage in character creation and development while preparing and performing monologues and scenes from scripted texts and improvisations.

Rubrics will be used to assess individual performances and group scene performances to evaluate if the acting skills have been learned and how well they're utilized in performances. Creating low-stakes assessments and giving immediate, positive feedback helps students to directly experience successful developments of the skills they learned which in turn promotes a "growth" mindset that supports internal motivation.

**Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of critical thinking.*

Critical thinking skills are important in acting so that characters and circumstances are believable to the audience. It is up to the actor to bring the words from a script alive on stage (with the help from a director). This is done by reading scripts and understanding the conflicts and interactions between the characters to resolve the problem at the end of the play (or scene). In the theater world, problem setting is basically the conflict that carries on throughout the play until there is a resolution at the end, be it positive or negative. Therefore, reading scripts and deciding what the context implies is important for the students to make sense of the plot and character relationships in order to evaluate the worthiness of the story. Students will learn that it's important for a play to be purposeful (arouse emotions), varied with characters and plot, engaging to maintain interest, and the events in the play must be logical to reach a valid conclusion. Therefore, critiquing a play will articulate possible interpretations of a script or performance clearly and effectively; students will do this orally through class discussion or in writing. Another important critical thinking skill is evaluating peer performances. Specific guidelines will be used to help students give constructive feedback to their peers' performances. Understanding a character is very important for the performance to be successful. Students will be asked to identify a character's given circumstances and write a character analysis using a list of questions as guidelines to enhance their characters persona from their monologues. Assessment of the character analysis will be used along with the actor's monologue in exuding the character (in other words, bringing printed words to life). Learning acting skills and applying those skills in various performances from scenes from scripts is using creative processes to solve problems, which can be directly applicable to virtually any job students may have.



**Personal & Social Responsibility. *Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global***

*In this box, provide a narrative that explains how the proposed course addresses **2** of the components of personal & social responsibility.*

Personal and social responsibility go hand in hand with collaboration skills, teamwork and value systems in the theater world. Acting is involved teamwork (even if it's a monologue!), therefore collaborating and being responsible for yourself and others breeds success in performances. Students will work independently in preparation for collaborative learning by first reading and performing monologues of their choice. Activities, including improvisations, will employ collaborative methods of work with a partner and in groups. As students perform different scenes from scripts, they will recognize the social, political, religious, and related cultural circumstances reflected in various periods and genres. Acting skills will help a person's self-confidence which can be carried onto other fields of learning and employment. Students will be asked to attend a live or online theater performance and critically analyze the performance without using value judgements. Students will use rubrics (from class) as a guide for their analyses.

---

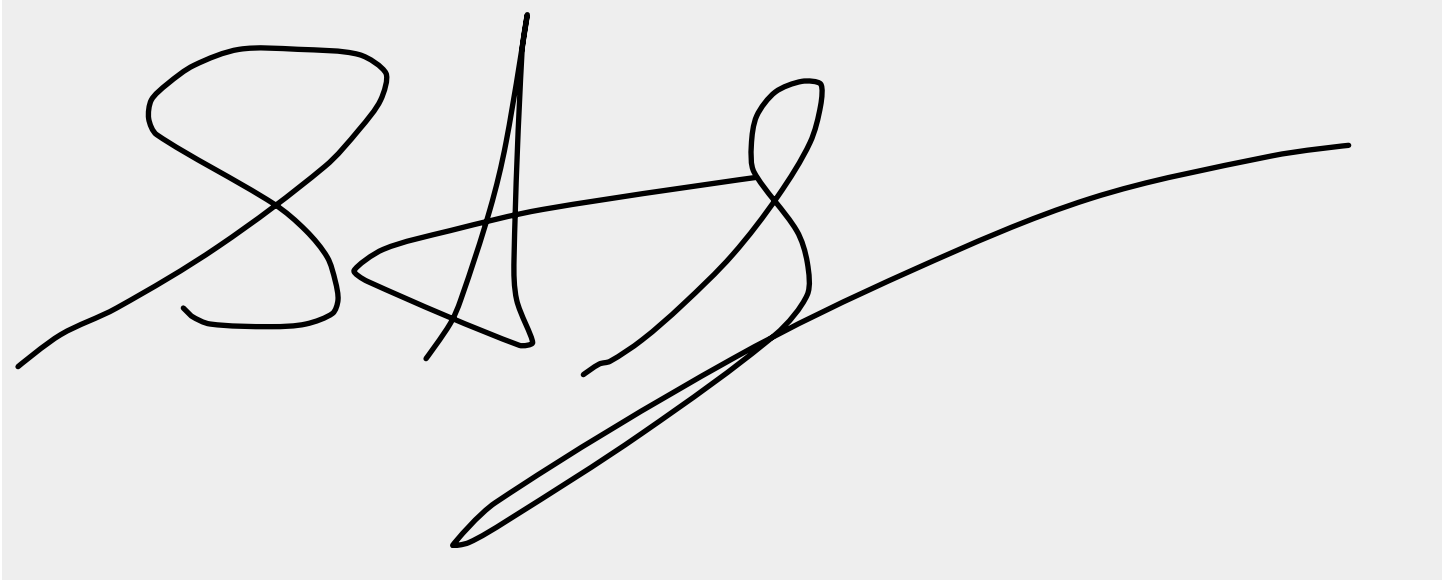
**D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

<https://www.nmt.edu/academicaffairs/assessment/gened.php>

---

This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).

A large, stylized handwritten signature in black ink on a light gray background. The signature is composed of several loops and a long, sweeping horizontal stroke that extends to the right.

**Date**

Mar 26 2021

## Upload Assessment

**Completed** - Mar 26 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

[Character\\_Performance\\_Rubric\\_NMT Acting\\_tapodaca](#)

**Filename:** Character\_Performance\_Rubric\_NMT\_Ac\_iZoWPXZ.pdf **Size:** 162.2 kB

## Upload Rubric

**Completed** - Mar 26 2021

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

[ScenePerformanceRubric\\_THEA1210](#)

**Filename:** ScenePerformanceRubric\_THEA1210.pdf **Size:** 114.4 kB

**Application: 0000001492**

## Summary

**ID:** 0000001492

**Status:** Under Review

**Last submitted:** Mar 29 2021 05:20 PM (MDT)

## Application Form

**Completed** - Mar 26 2021

## Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

### Contact Information

Name	Christopher ChoGlueck
Title	Assistant Professor Of Ethics
Phone	575-835-5401
Email	<a href="mailto:christopher.choglueck@nmt.edu">christopher.choglueck@nmt.edu</a>

### Submitting Institution

Name of HEI	New Mexico Institute of Mining and Technology
Submitting Department	Department of Communication, Liberal arts and Social Sciences

### Chief Academic Officer

Name	Dr. Steve Simpson
Email	<a href="mailto:steve.simpson@nmt.edu">steve.simpson@nmt.edu</a>

## Registrar

Name	James Scott
Email	<a href="mailto:james.scott@nmt.edu">james.scott@nmt.edu</a>

## Is this application for your entire system (ENMU, NMSU, & UNM)?

(No response)

## Institutional Course Information

Prefix	PHIL
Number	130
Title	Ethics and Values in Stem
Number of credits	3

## Was this course previously part of the New Mexico General Education curriculum?

No

## Co-requisite Course

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)

## New Mexico Common Course Information

Prefix	(No response)
Number	(No response)
Name	(No response)

### A. Content Area and Essential Skills

#### To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Humanities - Information & Digital Literacy, Critical Thinking, Personal & Social Responsibility

### B. Learning Outcomes

#### List all common course student learning outcomes for the course.

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

We have submitted this course under unique courses with a requested number of PHIL 1116.

## Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

1. Construct and clearly communicate arguments about ethics and values in STEM; and defend their judgments with charity and without logical fallacies;
2. Write and research essays about contemporary debates about ethical issues in STEM with analytic structure that engage with popular and scholarly conversations;
3. Recognize how human cultures and value judgments shape the process of science and the practice of engineering, including ethical frameworks and theories as well as societal values and biases;
4. Evaluate diverse viewpoints in research and policy-making both locally and globally, accounting for gender, race, ethnicity, class, nationality, and financial conflicts of interest; and deliberate over their social responsibility for technological development and the burden of social consequences.

---

### C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

***Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.***

*In this box, provide a narrative that explains how the proposed course addresses all of the components of critical thinking.*

As a course in practical philosophy, students will develop their abilities to reason critically about philosophy and ethics in real-world cases, both individually and in groups. Along with regular attendance and participation, assignments include 5 quizzes, 3 short papers, and a group project, all of which require them to develop conclusions and creative solutions. For instance, we spend several weeks in the middle of the semester discussing the influence of society on science particularly in the form of how values and biases affect methodology. The students grapple with traditional ideas of value-freedom, its benefits, and its limitations, as we examine case studies of values influencing research questions, standards of evidence, and communication of scientific results. Students are regularly posed with questions about possible defenses of traditional ideas of objectivity as well as invited to provide alternatives that allow for values to play more positive roles in science.

These critical reasoning skills are more formally taught through skills workshops. In a skills workshop in the beginning of the semester, students are learned about how to form arguments, particularly how to use evidence to support judgments about ethical claims. I introduce them to logical criteria for evaluating the validity and probable truth of arguments as well as logical fallacies commonly committed. Throughout the semester, we have fallacies of the day that arise in our class readings or discussions. Students are trained in identifying fallacies and avoiding them. In another skills workshop, students learn how to write analytic papers that present arguments and then evaluate different objections by providing responses to them. Throughout classes, we use the argument-objection-response (AOR) framework to help students understand the logic of arguments and to develop their own positions based on evidence. To practice these skills, students write two analytic papers either defending or criticizing some claims from the class readings. The focus for grading here is less on the positions they take and more on the soundness of their argumentative structure, the clarity of the grounds as evidence for their position, and the charity (fairness) displayed to any positions they criticize.

---

***Personal & Social Responsibility. Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills,***



***teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global***

*In this box, provide a narrative that explains how the proposed course addresses 2 of the components of personal & social responsibility.*

The content of this course is explicitly oriented toward different aspects of ethical reasoning, including both personal responsibility (i.e., moral conscience and integrity) and social responsibility (e.g., uneven impacts of different groups, democratic processes of decision making). This course is suited to introduce STEM students of all levels and backgrounds to ethical issues related to their professional and social responsibilities. The materials introduce students to a diverse set of authors and a variety of contemporary topics, including sex differences, genetic modification, pharmaceutical drugs, climate-change denial, citizen science, energy policy, algorithmic bias, Indigenous rights, nuclear waste disposal, race-based medicine, reproductive health, and the military-industrial complex.

In the beginning of the course, we introduce students to the basics of research ethics and researchers' social responsibilities. Students then explore the diverse roles for ethical values throughout science and engineering, involving researchers' choice of funding, methodology, communication, and public engagement. Additionally, we discuss social responsibility for technological development, surveying issues in computer science, environmental justice, public health, and military ethics.

Respectful and civic discourse is a regular feature of the course. Each class, the instructor asks students open-ended questions for discussion in small groups of 2-3. Students are instructed how to "put on different hats" using different perspectives to engage their peers and the arguments under discussion. In their pairs, students must convey their own thoughts (though not necessarily their commitments) and the grounds for that judgment. Special emphasis is placed on open-minded engagement, charitable reading, respectful dialogue, and collaborative teamwork.

Given the sensitive and challenging nature of the materials discussed in class, it is imperative that there be an atmosphere of safety, inclusiveness, and equity in the classroom. Accordingly, we follow use advice of the writer James Baldwin as a rule for respect: "We can disagree and still love each other unless your disagreement is rooted in my oppression and denial of my humanity and right to exist." In line with this, students are also expected to promote respectful inclusiveness, especially in the face of differences, disagreement, and discrimination. Accordingly, certain disagreements, e.g., over the humanity, value, or abilities of marginalized groups, are disrespectful, unfair, and against our ground rule

**Information & Digital Literacy. Authority and Value of Information; Digital Literacy; Information Structure; and Research as Inquiry**

*In this box, provide a narrative that explains how the proposed course addresses 3 of the components of digital literacy.*

As practice in creating and conveying information, students engage in an iterative process of inquiry through their final group projects: in groups of 3-4 students research and present an analysis of a contemporary ethical issue in STEM using a case study of their choosing, engaging 3 or more different perspectives. The groups use scholarly research skills learned in an in-class workshop (with a librarian) to find information about their issue, support their arguments, and cite their sources. Groups engage with both philosophical and scientific sources, including at least 4 peer-reviewed articles or books (see research guide). Presentations require some multimedia component, and all member take different roles in the research process: (1) coordinator, (2) research lead, (3) analyst, and (4) designer. All member must work and present together. This exercise is aimed to facilitate students' ability to think about how ethical issues relate to concrete cases and to work through ethical problems as a group. Additionally, this exercise aims to develop students' oral presentation abilities and their group-work ethic. Students are explicitly instructed on strategies and expectations for collaborative teamwork in a skills workshop, involving fair distribution of labor and accountability. Afterward, groups are to decide on their issue and their share of the work. To lay out expectations, each student submits a Pre-Presentation Individual Report, briefly covering the proposed case, ethical issues, their expected role in the group (e.g., coordinator, researcher, analyst, designer), and how it fits with the roles of other members (1/2 page). This report is a tentative proposal for their contribution and a means of fairly distributing work and roles. The instructor then gives feedback on these reports if needed.

Then, during the week before exams, each group presents their research project, involving some multimedia demonstration of their case study, such as a screencast of slides, a podcast, an explainer video, an infographic, etc., followed by Q/A. Presentations must include the following elements: (1) background on the case study and clear articulation of ethical problem; (2) engage three or more perspectives on the case (including stakeholders, their values, and interests); (3) elaborate on reasons for the perspectives; and (4) discuss possible objections and responses and/or strengths and weakness of each. Group presentations are graded in terms of those four content areas, as well as research quality (4 or more scholarly sources) and presentation quality (including creativity and engagement).

Following the presentation, each member submits a brief Post-Presentation Individual Report discussing and evaluating their actual contribution to the group (1/2 page). The instructor uses these reports to

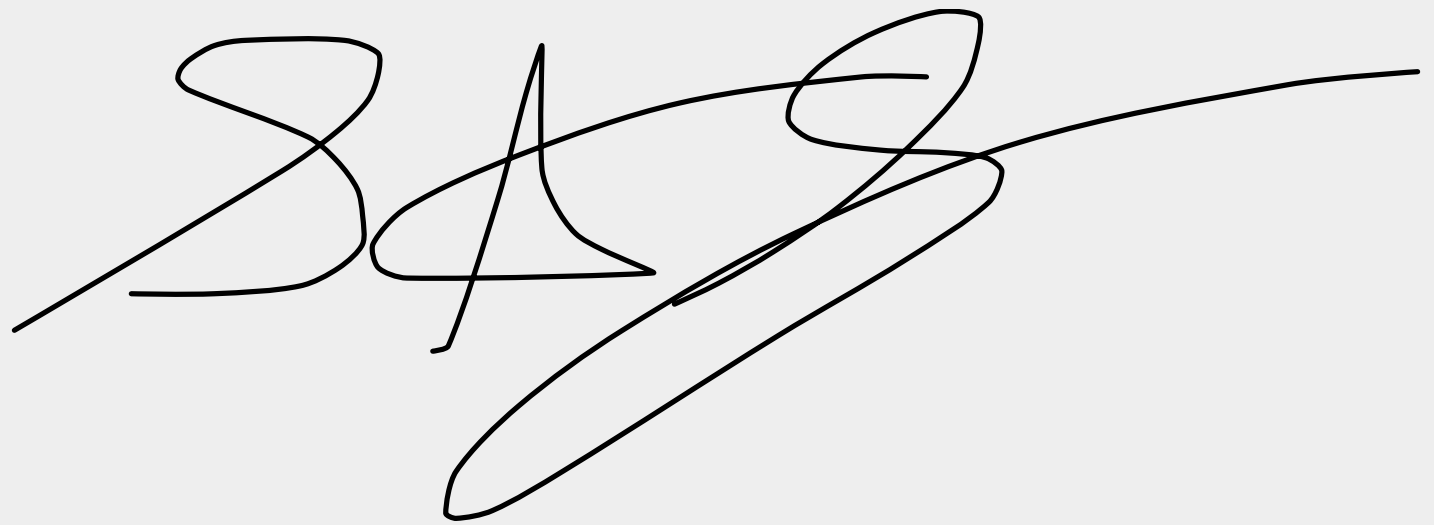
adjust individual students' grades only in the case that students were free riders, i.e., members who did not fulfill their fair share of the work to the group.

#### **D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

<https://www.nmt.edu/academicaffairs/assessment/gened.php>

**This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).**

A large, stylized handwritten signature in black ink, consisting of several loops and a long horizontal stroke extending to the right.

**Date**

Mar 26 2021

## **Upload Assessment**

**Completed** - Mar 26 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

**[PHIL 130 assessment AP](#)**

**Filename:** PHIL\_130\_assessment\_AP.pdf **Size:** 75.7 kB

## Upload Rubric

**Completed** - Mar 26 2021

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

### [PHIL 130 grading rubric AP](#)

**Filename:** PHIL\_130\_grading\_rubric\_AP.pdf **Size:** 77.8 kB

## Application: 0000001455

Michael Raine - mraine@unm.edu  
NM General Education Curriculum

### Summary

**ID:** 0000001455

**Status:** Under Review

**Last submitted:** Apr 12 2021 08:51 AM (MDT)

## Application Form

**Completed** - Apr 10 2021

## Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility

5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

### Contact Information

Name	Tamar Ginossar
Title	Associate Professor
Phone	(No response)
Email	<a href="mailto:ginossar@unm.edu">ginossar@unm.edu</a>

### Submitting Institution

Name of HEI	UNM Main
Submitting Department	(No response)

### Chief Academic Officer

Name	Pamela Cheek
Email	<a href="mailto:pcheek@unm.edu">pcheek@unm.edu</a>

### Registrar

Name	Michael Raine
Email	<a href="mailto:mraine@unm.edu">mraine@unm.edu</a>

### Is this application for your entire system (ENMU, NMSU, & UNM)?

Yes

### Institutional Course Information

Prefix	COMM
Number	2121
Title	Interpersonal health communication
Number of credits	3

### Was this course previously part of the New Mexico General Education curriculum?

No

## Co-requisite Course

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)

## New Mexico Common Course Information

Prefix	COMM
Number	2121
Name	Interpersonal health communication

## A. Content Area and Essential Skills

### To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Communications - Communication, Critical Thinking, Information & Digital Literacy

## B. Learning Outcomes

**List all common course student learning outcomes for the course.**

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

1. Identify at least two medical models and their approach to health communication
2. List major issues facing health care and their implications for health communication
3. Understand the impact of health communication on patients' health outcomes
4. Apply concepts of the medical talk in patient-provider simulations
5. List major approaches to effective communication in culturally diverse health care organizations
6. Identify underserved communities and groups and inclusive communication strategies
7. Describe the role of technology in health communication
8. Understand basic methods of health communication research
9. Identify at least two medical models and their approach to health communication
10. List major issues facing health care and their implications for health communication
11. Understand the impact of health communication on patients' health outcomes
12. Apply concepts of the medical talk in patient-provider simulations
13. List major approaches to effective communication in culturally diverse health care organizations
14. Identify underserved communities and groups and inclusive communication strategies
15. Describe the role of technology in health communication
16. Understand basic methods of health communication research

---

**Institution-specific Student Learning Outcomes**

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

NA



## C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

**Communication. Genre and Medium Awareness, Application and Versatility; Strategies for Understanding and Evaluating Messages; and Evaluation and Production of Arguments.**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of communication.*

Communication is a pivotal component in health, well-being and medical care. In addition to understanding how communication practices influence societal and individuals perspectives on health and well-being, the course will explore real-life applications of health communication best practices in diverse settings including healthcare, interpersonal, and the impact of media and social media on health communication between individuals and on health outcomes. It also requires students to learn about social scientific research of health communication and its impact on health.

Through experiential learning including role play, guest speakers' presentations, group discussions and hand on projects, the course will advance students' oral and written communication as it relates to health and social scientific research, will enhance their critical thinking by engaging in current societal and healthcare dilemma such as inequity in health outcomes, social determinants to health, patient-provider communication, disclosure and stigma's impact on health outcomes, and will advance information and digital literacy through exploration of current social scientific research and online health information.

This course begins to prepare students for communication in subsequent college courses and in the workplace, personal and social spheres, and civic life, by examining the role of communication in health in these diverse contexts. Furthermore, the course will facilitate students' growth in becoming versatile communicators who can respond to a diverse range of situations by different in-class role playing exercises. By practicing health communication skills in the course, students should reach the proficiency in diverse communication tasks, including advocacy (as a consumer/patient), history taking (as a

provider), etc. The final project for the course is specifically designed to demonstrate that research “is an interactive process of inquiry that defines a problem or poses a question and through research generates a reasonable solution or answer.” The requirements for the final project first asks students to articulate a question they have related to Introduction to Health

Second, they must find at least three different sources that address or answer the question they ask. Third, they must assess the bias and credibility of each source; and, forth, they must explain the conclusions they draw about their question, the answers to it, and the sources that they consult for answers. This assignment is designed to support the students as writer who can communicate effectively with group members and readers.

---

***Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.***

*In this box, provide a narrative that explains how the proposed course addresses **all** of the components of critical thinking.*

In numerous course assignment as well as class discussions, students will be asked to identify particular questions and problems that may result from different models or approaches to health communication in diverse contexts. Through the course’s final project, they will be required to identify a health-related problem and apply research methods in order to learn about this problem.

All of the course materials and class discussions and assignments are designed for the students to gather information and data in order to draw conclusions. For example, they are required in the final project to have a section of literature review that demonstrate the background for their research, which focuses on a certain topic/problem.

The empirical study presentation is specifically designed to teach students how to assess research, including the biases and credibility of research.

Through the different assignments, students will be required to answer questions and to explain how they arrived at their opinions or conclusions using specific examples. The final project requires students to demonstrate reasoning skills more substantially, because students develop a question and attempt to answer it through an informed, well-reasoned evaluation process that also demonstrate ability to synthesize different approaches and perspectives.

**Information & Digital Literacy. Authority and Value of Information; Digital Literacy; Information Structure; and Research as Inquiry**

*In this box, provide a narrative that explains how the proposed course addresses **3** of the components of digital literacy.*

The course focuses on introducing to the students basic ways to secure ethical research, including avoidance of plagiarism. For instance, in the empirical study presentation, students are required to cite sources.

The course requires students to search online for both peer-reviewed articles and materials that patients consume and create, including social media. They are also encouraged to analyze such sources for the final research project.

In the final project on a question related to Introduction to Health Communication, students will search for information that can answer their question via the UNM Libraries' website as well as Internet search engines, such as Google. Once they find information that relates to and possibly answers the question they ask, students will evaluate its biases and credibility, decide whether to use the information or source to create their project, organize the information they decide to use, put the information they decide to use in the required format (a slide presentation with a voiceover), and then share that information and what they learned from it with their classmates and instructor.

---

**D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

<http://assessment.unm.edu/assessment-types/gened-assessment/index.html>

---

This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).



**Date**

Mar 23 2021

## Upload Assessment

**Completed** - Apr 10 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

[COMM 2121 Gen Ed Cert Form and assign](#)

**Filename:** COMM\_2121\_Gen\_Ed\_Cert\_Form\_and\_assign.pdf **Size:** 309.4 kB

## Upload Rubric

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

# Application: 0000001449

Jack McCaw - jack.mccaw@enmu.edu  
NM General Education Curriculum

### Summary

**ID:** 0000001449

**Status:** Under Review

**Last submitted:** Mar 22 2021 02:51 PM (MDT)

## Application Form

**Completed** - Mar 22 2021

# Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout

the course.

### Contact Information

Name	Jack McCaw
Title	Department Chair
Phone	5753151152
Email	<a href="mailto:jack.mccaw@enmu.edu">jack.mccaw@enmu.edu</a>

### Submitting Institution

Name of HEI	Eastern New Mexico University - Ruidoso
Submitting Department	Math and Science

### Chief Academic Officer

Name	Coda Omness
Email	<a href="mailto:Coda.Omness@enmu.edu">Coda.Omness@enmu.edu</a>

### Registrar

Name	Amy Means
Email	Amy.Means.enmu.edu

### Is this application for your entire system (ENMU, NMSU, & UNM)?

No

### Institutional Course Information

Prefix	BIOL
Number	2310
Title	Microbiology
Number of credits	4

**Was this course previously part of the New Mexico General Education curriculum?**

Yes

**Co-requisite Course**

Prefix	BIOL
Number	2310 L
Title (if applicable)	Microbiology Lab

**New Mexico Common Course Information**

Prefix	BIOL
Number	2310
Name	Microbiology

**A. Content Area and Essential Skills**

**To which area should this course be added?**

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Science - Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning

## B. Learning Outcomes

---

**List all common course student learning outcomes for the course.**

Common Course Student Learning Outcomes (find Common Course SLOs at:

<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

1. Describe and compare the structure and function of prokaryotic and eukaryotic cells.
2. Describe and compare the techniques used for staining of and microscopic observation of bacteria including morphology.
3. Describe the nutritional requirements for bacterial growth and the impact of environmental factors on bacterial growth (temperature, pH, oxygen, etc.).
4. Describe and compare the mechanisms of aerobic respiration, anaerobic respiration, and fermentative metabolism.
5. Describe the mechanism of bacterial growth by binary fission, and laboratory methods used for observing and measuring bacterial growth.
6. Describe the mechanisms of bacterial DNA replication, RNA transcription, and translation, and compare and contrast with eukaryotic cells.
7. Describe the structure and replication strategies of viruses.
8. Describe and contrast mechanisms of innate nonspecific immunity and adaptive specific immunity.
9. Describe immune hypersensitivity reactions, autoimmune diseases, and immunodeficiency diseases.
10. Differentiate between host microbe relationships, mechanisms of microbial pathogenesis, differentiate between communicable and noncommunicable diseases and describe mechanisms of direct and indirect transmission of communicable diseases.

---

### **Institution-specific Student Learning Outcomes**

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

None



## C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

### **Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of critical thinking.*

The scientific process is practiced throughout the study of microbiology in both lecture and laboratory activities. Students complete case studies designed to develop critical thinking skills, where data about a particular patient is provided and students must reason through the process of identifying a disease or condition based on that information. Students design experiments to learn critical thinking skills, including experiments in culturing and isolation of bacterial specimens, hand washing effectiveness, staining and microscopy techniques, and culture and population counting techniques. Students identify problems, gather data for analysis and form conclusions. Students also develop experiments to identify unknown bacterial specimens by the end of the semester (problem setting). Students are supplied unknown samples of bacteria and over 4 lab periods stain and prepare their samples, perform numerous biochemical tests and depending on results at each step, must choose what to do in their next step of identification (evidence acquisition). Students use data from each successive chemical test along with dichotomous keys to further categorize their specimens, getting closer each test (evidence evaluation). Finally, students progress through the series of tests, analyzing results at each point of the process, and coming to a final conclusion about the identity of the unknown specimen (reasoning/conclusion). Students keep notes throughout the process and answer questions about their findings and conclusions, which are included in their lab reports for assessment.

**Quantitative Reasoning. Communication/Representation of Quantitative Information; Analysis of Quantitative Arguments; and Application of Quantitative Models**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of quantitative reasoning.*

Students are required to make measurements and collect data in many of the laboratory experiments throughout the course. This includes the use of English and metric conversions in multiple labs and classroom assignments. Students need to be able to communicate conclusions drawn from interpretation of quantitative data and apply this information to real world scenarios. In one lab, students “count” bacteria in a variety of ways, one of which includes using a spectrophotometer and making serial dilutions of growth media and then making calculations based on turbidity of the sample and the number of dilutions. Students graph their data using Excel and then use this graphical data (communication/representation of quantitative data). Once graphed, students analyze their graphical data to extrapolate their numerical counts by conducting linear regressions (analysis of quantitative information). Students then make predictions about growth rates and colony production based on their data (application of quantitative information). Students are assessed through the laboratory report. Additionally, students are required to interpret graphical and quantitative data in numerous classroom discussions and activities, where students interpret bacterial growth phases, growth and nutritional needs, temperature requirements, or pH and salinity requirements.

**Personal & Social Responsibility. *Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global***

*In this box, provide a narrative that explains how the proposed course addresses 2 of the components of personal & social responsibility.*

In this course, students engage in discussion about ethical and moral issues surrounding topics such as the genetic modification of organisms by humans, the deliberate use of pathogens as biological weapons, and the health impacts of socio-economic and political systems. Students read a large 6-chapter case study on the Ebola virus throughout the course. Students answer questions over each chapter of the case study, which include the effects of poverty, environmental conditions, epidemiology and current research. Students propose solutions to some of the issues they encounter in the case study (ethical reasoning).

Students work collaboratively in both lecture and laboratory assignments throughout the course. Student groups are sometimes assigned and sometimes are student driven and organized. Student groups decide on individual responsibilities and hold each other accountable in performing group tasks. During the section of the course where students learn about diseases of the various body systems, students work in groups to identify organisms and diseases of interest to them to present to the class. Students are assigned particular body systems to investigate and prepare a PowerPoint presentation with their group of 2 to 3 students (collaboration and teamwork). Students must work together to identify diseases, prepare slides, and then deliver their information to classmates. Students are assessed through their presentations and also, they are in charge of producing a study guide for the particular diseases they present.

#### **D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

In Progress

This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).

A handwritten signature in black ink on a light gray background. The signature consists of a large, stylized 'C' or 'G' shape on the left, followed by a long, sweeping vertical line that curves slightly to the right at the top.

**Date**

Mar 20 2021

## Upload Assessment

**Completed** - Mar 21 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

[Lab 16 Staph\\_id](#)

**Filename:** Lab\_16\_Staph\_id.pdf **Size:** 1.1 MB

## Upload Rubric

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

**Application: 0000001472**

Robert Moore - Robert.Moore@rm01.enmuros.cc.nm.us  
NM General Education Curriculum

**Summary**

**ID:** 0000001472

**Status:** Under Review

**Last submitted:** Mar 24 2021 03:56 PM (MDT)

## Application Form

**Completed** - Mar 24 2021

## Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

### Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

### Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

### Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

### Contact Information

Name	Robert Moore
Title	Assistant VP
Phone	5756247001
Email	<a href="mailto:robert.moore@roswell.enmu.edu">robert.moore@roswell.enmu.edu</a>

### Submitting Institution

Name of HEI	ENMU-Roswell
Submitting Department	Humanities

### Chief Academic Officer

Name	Annemarie Oldfield
Email	<a href="mailto:annemarie.oldfield@roswell.enmu.edu">annemarie.oldfield@roswell.enmu.edu</a>

### Registrar

Name	Linda Neel
Email	<a href="mailto:linda.neel@roswell.enmu.edu">linda.neel@roswell.enmu.edu</a>

**Is this application for your entire system (ENMU, NMSU, & UNM)?**

No

**Institutional Course Information**

Prefix	HUMN
Number	1110
Title	Introduction to World Humanities I
Number of credits	3

**Was this course previously part of the New Mexico General Education curriculum?**

Yes

**Co-requisite Course**

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)

**New Mexico Common Course Information**

Prefix	HUMN
Number	1110
Name	Introduction to World Humanities I

**A. Content Area and Essential Skills**

## To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Humanities - Information & Digital Literacy, Critical Thinking, Personal & Social Responsibility

## B. Learning Outcomes

### List all common course student learning outcomes for the course.

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

1. Identify and analyze key ideas, contributions, and expressions from the civilizations, cultures, and time periods in the areas of the arts, sciences, politics, religion, architecture, music, and philosophy examined in the course.
2. Recognize and distinguish between ideas, contributions, and expressions of various cultures and civilizations as well as identify connections.
3. Demonstrate knowledge of particular examples introduced in the course.
4. Demonstrate critical skills in interpretation, discussion, and in composing creative, analytical and/or objective responses to material.

### Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

NA



## C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

### **Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.**

*In this box, provide a narrative that explains how the proposed course addresses **all** of the components of critical thinking.*

[\*Problem Setting:] During the semester, students enjoy an interdisciplinary introduction to the cultural contributions and expressions of ancient civilizations from Mesopotamia to the Americas and approach religious, philosophical, and artistic elements of these cultures through reading, reflective writing, shorter essays, presentations, and a longer researched essay. Students participate in individual and group activities while exploring ancient civilizations and share their reactions and experiences through various written documents, including focused annotation.

[Evidence Acquisition:] Students access and consider evidence through their assigned course texts, recordings, handouts, the library's general collection, and the University's numerous databases (e.g., EBSCO, Academic Search Complete, ProQuest, JSTOR, etc.), and faculty-provided material to support their investigation and study. Like their reflective writing, several assignments require them to rally information they have accessed about traditional religious practices, political world-views, and technological advances. Most of the course revolves around these civilizations' theology since art, writing, politics, and government all exhibit or reinforce their beliefs. We know much of these early civilizations due to all the artifacts that have been preserved or discovered. Art shows us our history. The short reading assignments about a range of topics allow students to gather more profound and diversified information about ancient cultures.

[\*Evidence Evaluation:] Discussions and written assignments compel students to respond to primary

texts, other students' positions, as well as professional critiques/reviews; the discussions and written responses model techniques of textual and cultural evaluation. Interactions with the faculty member and other students allow students to weigh observations and conclusions, to test the mettle of their thinking. During discussions (about Greece's military expansion, for example), students consider primary texts' value (including literary sources) and other students' opinions. For many of the statements, students make (in discussions, for example, about Asia's caste system), we emphasize currency, relevance, authority, accuracy, and purpose. Students are working on creating their own opinions and understanding of the material; many assignments make conscious the techniques of evaluation necessary to assure thoughtful and hearty presentation (in one essay, they evaluate and draw upon a range of sources to generate their thesis about a crucial moment in cultural history).

[\*Reasoning/Conclusion(s):] Students arrive at defensible, relevant, and interesting conclusions based on sound and creative premises in their essays, presentations, short assignments, projects, and journaling/annotation. They are guided to ask questions, posit answers, and support their solutions through different deductive reasoning and Socratic teaching strategies. Repeated exposure to primary and secondary sources allows students to engage examples of good and flawed logic, logical fallacies, misguided conclusions, affirming organization, and general patterns of argument valuable for college-level academic discourse. Their final essay, for example, asks them to posit a question, reason through an answer, and support a conclusion.

**Personal & Social Responsibility. *Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global***

*In this box, provide a narrative that explains how the proposed course addresses 2 of the components of personal & social responsibility.*

[\*Intercultural Reasoning and Intercultural Competence:] During the semesters, through readings, research, and discussions, students encounter a variety of socio-cultural issues in the literature across periods and geographical areas; as a declared interdisciplinary course, each text and assignment seeks to develop intercultural competence by drawing comparisons, showing changes, and otherwise contrasting multiple unique cultures. Students examine how ancient socio-cultural practices inform and are influenced by the development of other societies, primarily through their readings but also

assignments like the reflective writings that ask students to consider, for example, how Africa and the Americas' naval interactions shaped them. Student progress is measured in part on their ability to recognize differing artistic, political, and religious manifestations among the many cultures in the early developing world and reflect their understanding in essays, projects, and presentations; many of the assignments ask them to engage, react to, and otherwise consider issues most relevant to ethical and social responsibility—such as the slave trade, military tactics, and the rise of city-states—including through their annotation/journaling, reflective essays, and projects. Much of these areas are all influenced by one another due to the time period, the ruler(s), and the day's hegemonic view. For example, if we discuss the Baroque era, we must understand how religion dictated much of the day's art, sciences, politics, etc. They are harmonious in how they worked through each other. Students learn that religion has a massive impact on all areas. For most of the early civilizations, their faith dictated how a resident's civic experience would likely unfold.

[\*Civic Knowledge and Engagement—Local and Global:] Across the semester, students tackle ancient socio-cultural, artistic, religious, and political issues; these explorations are anchored in practical, real-world examples of creative problem-solving. We might consider, for example, how ancient thinking informs, contradicts, and forms the basis for modern culture. Seeking a kind of cultural literacy, students investigate the local and global contexts surrounding the creation, distribution, and context of their assigned primary sources—drawing connections across diverse regions, periods, and societies (one project, for example, asks students to answer the question, what is life like for a citizen of Greece and Asia at the same point in history?). Students strive to contextualize academic discourse with global movements, structures, and attitudes. Nearly every primary text embraces the conversation of civic responsibility either as a critique, a model, or an investigation of communities in action; the texts provide the leaping-off point for discussions about how the individual conflicts with, correspondent to, or estranged from civic duties, responsibilities, and obligations; their annotation and essays allow them to reflect and sharpen their understanding.

---

**Information & Digital Literacy. *Authority and Value of Information; Digital Literacy; Information Structure; and Research as Inquiry***

*In this box, provide a narrative that explains how the proposed course addresses 3 of the components of digital literacy.*

[\*Digital Literacy / Information Structures:] Students master Blackboard both to initiate and participate in several course discussions, communicate with their classmates and instructor, check their grades, and receive course-wide and institutional updates. Several class meetings, office hours, and individual meetings with faculty occur over Teams or Zoom. Students engage other critical digital tools, including email, PowerPoint, web browsers, and other platforms like Instagram for communication, research, and general communication. Students have access to tutoring services and a wealth of online tutorials and services available to assist their academic progress (Youtube videos, tutorials, Purdue Owl, etc.). These digital tools manifest in their assignments at every level.

[\*Information Structures:] Students embrace the library, both physical and virtual, as an enormous campus resource to facilitate and conduct research and investigation. They have access to and are required to interact with the library's digital resources, including e-Books, electronic articles, and electronic reference works, especially in preparation for their exams and continuous practice.

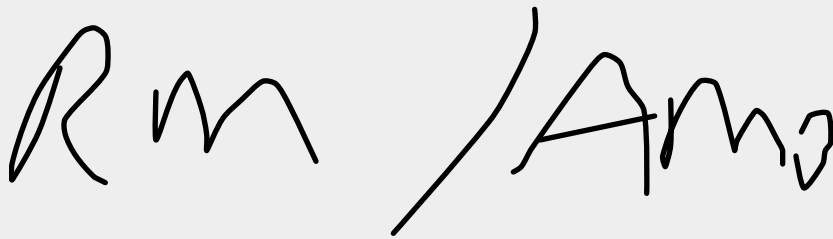
[\*Research as Inquiry:] Assignments and academic interaction in the classroom emphasize a student's ability to initiate, conduct, and arrive at conclusions through various research methods. The course teaches students to ask good questions and then explore through personal and academic channels multiple forms of knowledge that assist them in concluding. For example, in the final essay, they can explore two significant scientific discoveries from different ancient world areas and speculate about the conditions that allowed the discoveries to happen and spread through the culture. Students learn to supplement their observations with various support, including quotations from the source material, professional commentary integrated into their writing (essays, annotations, reflections, projects), and other research. Assignments challenge students to appreciate their role in the knowledge-making adventure of academic, scholarly investigation through the process of asking questions and seeking solutions that are well-supported and engaging. Sometimes, they answer questions the faculty member proposes; sometimes, they generate their inquiry. Nearly every project or assignment requires students to embrace the "research as inquiry" model. Still, their shorter response essays especially ask them to encounter, research, and report back on a focused question.

#### D. Assessment Plan (Must be on file with HED by August 1, 2019)

Link to Institution's General Education Assessment Plan

[https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan\\_ENMURoswell.pdf](https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan_ENMURoswell.pdf)

**This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).**

A handwritten signature in black ink, appearing to read "Rm / Amo". The signature is written on a light gray background.

**Date**

Mar 24 2021

## Upload Assessment

**Completed** - Mar 24 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

### [HUMN 1110 Assignment](#)

**Filename:** HUMN\_1110\_Assignment.pdf **Size:** 420.1 kB

## Upload Rubric

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

# Application: 0000001498

James Scott - james.scott@nmt.edu

## Summary

**ID:** 0000001498

**Status:** Under Review

**Last submitted:** Mar 29 2021 05:23 PM (MDT)

## Application Form

**Completed** - Mar 29 2021

## Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

# Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

## Contact Information

Name	Agnieszka (Aga) Gabor da Silva
Title	Instructor
Phone	(No response)
Email	<a href="mailto:aga.gabor@nmt.edu">aga.gabor@nmt.edu</a>

## Submitting Institution

Name of HEI	New Mexico Institute of Mining and Technology
Submitting Department	Department of Communication, Liberal arts and Social Sciences

## Chief Academic Officer

Name	Dr. Steve Simpson
Email	<a href="mailto:steve.simpson@nmt.edu">steve.simpson@nmt.edu</a>

## Registrar

Name	James Scott
Email	<a href="mailto:james.scott@nmt.edu">james.scott@nmt.edu</a>

## Is this application for your entire system (ENMU, NMSU, & UNM)?

(No response)

## Institutional Course Information

Prefix	PORT
Number	1110
Title	Portuguese I
Number of credits	3

## Was this course previously part of the New Mexico General Education curriculum?

No

## Co-requisite Course

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)



New Mexico Common Course Information

Prefix	PORT
Number	1110
Name	Portuguese I

A. Content Area and Essential Skills

To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Humanities - Information & Digital Literacy, Critical Thinking, Personal & Social Responsibility

B. Learning Outcomes

**List all common course student learning outcomes for the course.**

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

Student Learning Outcomes

1. Students can communicate and exchange information about familiar topics using phrases and simple sentences, sometimes supported by memorized language.
2. Students can handle most short social interactions in everyday situations by asking and answering simple questions.
3. Students can write short messages and notes on familiar topics related to everyday life.
4. Students can often understand words, phrases, and simple sentences related to everyday life.
5. Students can recognize pieces of information and sometimes understand the main topic of what is being said.
6. Students can understand familiar words, phrases, and sentences within short and simple texts related to everyday life.
7. Students can sometimes understand the main idea of what they have read.
8. Students can make connections between beliefs, behaviors and cultural artifacts of the Portuguese-speaking world, and make informed cross-cultural comparisons.

---

**Institution-specific Student Learning Outcomes**

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

None

## C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

### **Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.**

*In this box, provide a narrative that explains how the proposed course addresses **all** of the components of critical thinking.*

Students will develop their critical thinking skills in reading and writing in Portuguese through class discussions, graded homework assignments, and group work. Language instructors follow a noticing approach with practice reading assignments in class so that students are able to: 1. identify the main idea of text (different kinds of genres are incorporated in class discussions), 2. ask and discuss questions related to the main idea of text in groups, 3. identify supporting details from the texts in order to acquire evidence of their argumentation 4. guess meaning from context, 5. discuss organizational text features and authors perspectives, 6. compare cultural perspectives from the text and student's local communities and 7. discuss personal reaction to texts. Item 1 above focuses on Problem solving, Items 2 to 5 address evidence acquisition based on reading in Portuguese, and Items 6 and 7 focus on evidence evaluation and reasoning/conclusion.

**Personal & Social Responsibility. Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global**

*In this box, provide a narrative that explains how the proposed course addresses 2 of the components of personal & social responsibility.*

Throughout the semester students engage in pair and small group activities aimed at promoting interaction and exchange of ideas and in which each member contributes equally to the outcome. As they work in groups, students discover their own strengths and those of their peers. Students develop ways to make the group interaction productive and conducive to appreciation of other students' skills and perspectives that differ from their own. Students reflect on the process of working in groups and how that process differs from working individually. Toward the end of the semester students are asked to watch a Portuguese-speaking movie and answer a number of questions related to the cultural representation of reality in the movie as well as explain how the social issues depicted in the movie can be identified in the cultures familiar to them.

**Information & Digital Literacy. Authority and Value of Information; Digital Literacy; Information Structure; and Research as Inquiry**

*In this box, provide a narrative that explains how the proposed course addresses **3** of the components of digital literacy.*

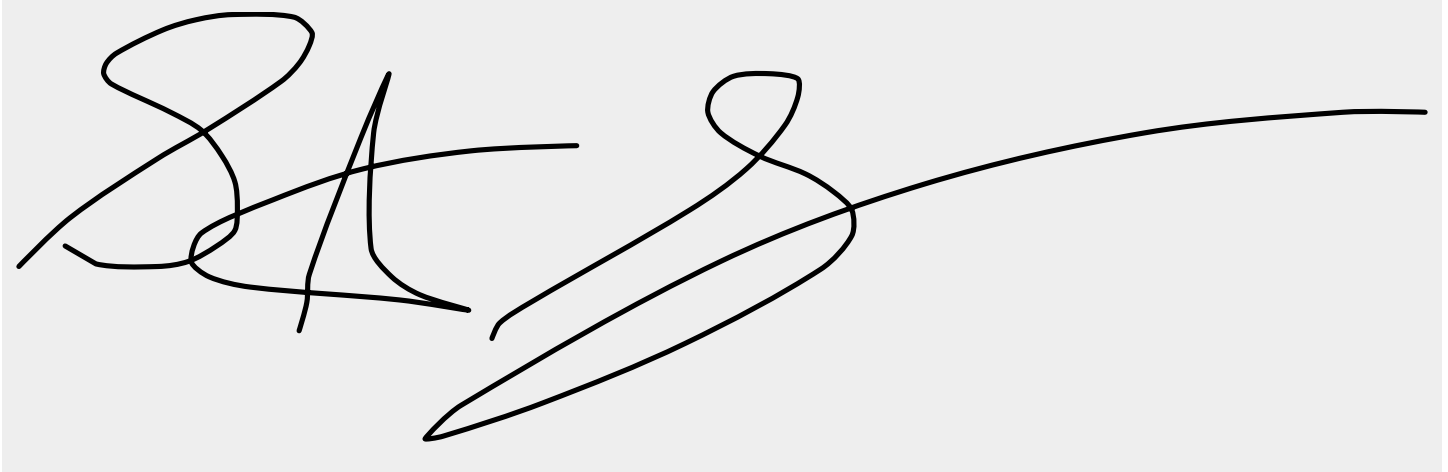
Students are asked to work in groups and develop a Cultural Project, that is, collect information to address the question or problem regarding their topic on cultural or linguistic aspects of the target language and then present it to their peers. Students are required to select information that comes from an unbiased source and present it to their peers in the time range suggested by the instructor. Students are asked to incorporate visual aids in their presentations to enhance and summarize their ideas. They then assemble information into an appropriate format to share such information. After presenting the information to the class, students also deliver their findings in written format including their presentation materials to the instructor. Students often discover their own personal assumptions as they research topics. During in- class activities, students create questions and gather information from a variety of sources, including their textbooks with its accompanying online website materials. Students compare that information with potential personal and societal assumptions.

**D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

<https://www.nmt.edu/academicaffairs/assessment/gened.php>

This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).

A large, stylized handwritten signature in black ink on a light gray background. The signature is composed of several loops and a long horizontal stroke extending to the right.

**Date**

Mar 28 2021

## Upload Assessment

**Completed** - Mar 28 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

### [Assessment Portuguese](#)

**Filename:** Assessment\_Portuguese.pdf **Size:** 148.0 kB

## Upload Rubric

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

# Application: 0000001483

Robert Moore - Robert.Moore@rm01.enmuros.cc.nm.us  
NM General Education Curriculum

### Summary

**ID:** 0000001483

**Status:** Under Review

## Application Form

**Completed** - Mar 25 2021

## Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

### Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

### Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

### Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.

- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

### Contact Information

Name	Robert Moore
Title	Assistant VP
Phone	5756247001
Email	<a href="mailto:robert.moore@roswell.enmu.edu">robert.moore@roswell.enmu.edu</a>

### Submitting Institution

Name of HEI	ENMU-Roswell
Submitting Department	Social and Behavioral Science

### Chief Academic Officer

Name	Annemarie Oldfield
Email	<a href="mailto:annemarie.oldfield@roswell.enmu.edu">annemarie.oldfield@roswell.enmu.edu</a>

### Registrar

Name	Linda Neel
Email	<a href="mailto:linda.neel@roswell.enmu.edu">linda.neel@roswell.enmu.edu</a>



**Is this application for your entire system (ENMU, NMSU, & UNM)?**

No

**Institutional Course Information**

Prefix	ECON
Number	2110
Title	Macroeconomic Principles
Number of credits	3

**Was this course previously part of the New Mexico General Education curriculum?**

Yes

**Co-requisite Course**

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)

**New Mexico Common Course Information**

Prefix	ECON
Number	2110
Name	Macroeconomic Principles

**A. Content Area and Essential Skills**

## To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Social & Behavioral Sciences - Communication, Critical Thinking, Personal & Social Responsibility

## B. Learning Outcomes

**List all common course student learning outcomes for the course.**

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

1. Explain the concepts of opportunity cost, comparative advantage and exchange.
2. Demonstrate knowledge of the laws of supply and demand and equilibrium and use supply and demand curves to analyze responses of markets to external events.
3. Explain the circular flow model and use the concepts of aggregate demand and aggregate supply to analyze the response of the economy to disturbances.
4. Explain the concepts of gross domestic product, inflation and unemployment and how they are measured.
5. Describe the determinants of the demand for money, the supply of money and interest rates and the role of financial institutions in the economy.
6. Define fiscal policy and monetary policies and how these affect the economy.
7. Students will be able to identify the causes of prosperity, growth, and economic change over time and explain the mechanisms through which these causes operate in the economy

## Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

NA

### C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

#### **Communication. Genre and Medium Awareness, Application and Versatility; Strategies for Understanding and Evaluating Messages; and Evaluation and Production of Arguments.**

*In this box, provide a narrative that explains how the proposed course addresses **all** of the components of communication.*

This course weaves the essential skills associated with the Communication content area throughout the course.

##### Genre and Medium Awareness

The medium for instruction in this course is English. Representative texts from three written discourse genres are used: a textbook on economics for undergraduate students, newspaper articles related to business and finance from two representative sources ('The Financial Times' and 'The Wall Street Journal'), and journal articles of economic analyses written by specialists in the field (taken from 'The Economist'). The selection of these texts is based on the importance of exposing students with professional or academic interests in economics to these genres.

### Application and Versatility

A learning management system (LMS) is used by the instructor of this course to create and deliver content, monitor student participation, and assess student performance. Learners interact with other students, with the instructor, and with content through integration of the online and face-to-face environments. Students use the interactive features of the LMS for threaded discussions, video conferencing, and discussion forums.

### Strategies for Understanding and Evaluating Messages

In order to understand and evaluate messages at the principle level of economics, students must learn the basics, which include a large number of vocabulary, basic theory and memorization and understanding of how to use mathematical formulas. Whether it's scarcity (limited resources), opportunity cost (what must be given up to obtain something else), or equilibrium (the price at which demand equals supply), this economics course gives students a fluency in fundamental terms. In this course, oral and written discussions help students build community; explore new ideas; apply core concepts; and gather evidence of understanding.

### Evaluation and Production of Arguments.

To argue well and do a good job at evaluating the arguments of others, students need to learn how to use language well. They cannot make sense of an argument without being able to make sense of the language, meaning, and purpose of what is being communicated in the first place. The better they are at structuring their thoughts and ideas, the better they will be at expressing themselves. This is where skills with logic and critical reasoning come in. For example, many students find their knowledge is quite good, but they have difficulties in applying this knowledge to particular exam questions.

To address "Genre and Medium Awareness," students work with online discussions of open-ended questions testing student communication and person-to-person interaction. The ultimate goal of the discussion board assignment is to get students talking to each other. Discussion questions include positive analysis that ask them to apply the ideas, concepts and tools learned in class to different situations or problems (Medium awareness, application and versatility; Understanding and evaluating messages; Valuation and production of arguments). Discussion questions also ask students to evaluate normative questions (Valuation and production of arguments), questions that are based on principles of ethics and societal norms. To address "Strategies for Understanding and Evaluating Messages" students practice close readings of resources that have particular value in the context of the course. These readings give students exposure to different viewpoints and ideas. Subsequently, students translate their learning into the "Evaluation and Production of Arguments" by creating and refining their own arguments adapted to specific assignment guidelines.

For the subcomponent "Application and Versatility" skills, with respect to acquiring better communications skills, students evaluate an argument through a critical thinking framework. They produce a formal written argument reflecting essential critical thinking. One such exercise is to present students with a macroeconomic policy scenario. The policy argument contains information that bears directly on the issue and irrelevant information that has no relevance to the underlying issue. Students read the policy argument and make a recommendation based upon macroeconomic theory. This assignment develops communication skills using written medium. In addition to focusing on grammatical skills, it requires an evaluation of the argument's soundness based upon principles of macroeconomics. Additionally, students must discern relevant information from tangential information when evaluating and developing their recommendation. This develops their ability to distinguish between supported and unsupported claims of an argument. In the end, students develop a framework through the lens of macroeconomic theory for evaluating an argument and producing a recommendation based upon relevant information.

---

***Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.***

*In this box, provide a narrative that explains how the proposed course addresses all of the components of critical thinking.*

This course weaves the essential skills associated with the Critical Thinking content area throughout the course. Students complete some assignments using the Paul-Eder Critical Thinking Framework. This method requires them to define and understand the main issue (Problem Setting), gather relevant information (Evidence Acquisition), analyze data (Evidence Evaluation), propose multiple alternatives and discuss the potential consequences of each (Reasoning and Conclusion). The final step in the method requires them to scrutinize their process and make self-corrections as needed.

**Problem Setting**

The way students set problems can influence how they think about solutions. The Paul-Eder method requires them to define and understand the main issue. In one assignment students are presented with a table containing year, nominal Gross Domestic Product (GDP) and inflation information. In the narrative preceding the table public officials express confidence in their management of the economy.

### Evidence Acquisition

The evidence acquisition process forms the basis for further analysis of data and provides the potential for capturing relevant evidence. In the assignment, following the table, a series of questions using the critical thinking framework are presented. The first set of questions requires them to clearly delineate the underlying problem or issue imbedded in the public officials' statements within the context of economic performance. The next set of questions requires them to clearly define and explain how the concept of GDP can be used to evaluate the appropriateness of the opening statement.

### Evidence Evaluation

While students evaluate the evidence, they use two methods to help determine whether it's sufficient and appropriate: being thorough and being unbiased. Once the tasks described in the Evidence Acquisition section are completed, students must construct measures of real GDP and evaluate different regions of the country to analyze their economic performance over a period of time.

### Reasoning/Conclusion

Using their analysis, students must reevaluate the opening statement and develop a sound conclusion regarding the accuracy of the public official's statement. Students must convince the instructor through their written answers how well they understand the critical thinking framework and its appropriateness for evaluating an argument to produce an informed well-reasoned analysis. After completing these types of assignments, students will gain the essential skills as articulated by the general education components of Critical Thinking (Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion).

**Personal & Social Responsibility. *Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global***

*In this box, provide a narrative that explains how the proposed course addresses **2** of the components of personal & social responsibility.*

This course weaves the essential skills associated with the Personal and Social Responsibility content area throughout the course. The social responsibility ethical framework suggests an individual has an obligation to work and cooperate with other individuals and organizations for the benefit of society at large.

#### Intercultural Reasoning and Intercultural Competence

Much of macroeconomics is aimed at revealing the long-run and short-run determinants of a nation's gross domestic product (GDP). In one assignment students must measure why GDP is higher in the United States than in India and Nigeria? They must also recommend what governments of the poorest countries can do to promote more rapid GDP growth.

#### Civic Discourse

To begin conversations, students communicate with one another about the political, social, cultural and economic issues that their community faces. In one assignment students are asked to discuss the Doomsday clock: Will this motivate countries to change their policies involving the environment and nuclear weapons?

---

#### **D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

[https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan\\_ENMURoswell.pdf](https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan_ENMURoswell.pdf)

This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).



**Date**

Mar 25 2021

## Upload Assessment

**Completed** - Mar 25 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

### [ECON 2110 Macroeconomics Assessment](#)

**Filename:** ECON\_2110\_Macroeconomics\_Assessment.pdf **Size:** 76.9 kB

## Upload Rubric

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

# Application: 0000001435

Jack McCaw - jack.mccaw@enmu.edu  
NM General Education Curriculum

### Summary

**ID:** 0000001435

**Status:** Under Review

**Last submitted:** Mar 18 2021 11:56 AM (MDT)

## Application Form

**Completed** - Mar 18 2021



# Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout

the course.

### Contact Information

Name	Jack McCaw
Title	Department Chair
Phone	5753151152
Email	<a href="mailto:jack.mccaw@enmu.edu">jack.mccaw@enmu.edu</a>

### Submitting Institution

Name of HEI	Eastern New Mexico University - Ruidoso
Submitting Department	Math and Science

### Chief Academic Officer

Name	Coda Omness
Email	<a href="mailto:Coda.Omness@enmu.edu">Coda.Omness@enmu.edu</a>

### Registrar

Name	Amy Means
Email	Amy.Means.enmu.edu

### Is this application for your entire system (ENMU, NMSU, & UNM)?

No

### Institutional Course Information

Prefix	BIOL
Number	1133C
Title	Introduction to Wildlife and Fisheries Science
Number of credits	4

**Was this course previously part of the New Mexico General Education curriculum?**

No

**Co-requisite Course**

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)

**New Mexico Common Course Information**

Prefix	BIOL
Number	1133C
Name	Introduction to Wildlife and Fisheries Science

**A. Content Area and Essential Skills**

**To which area should this course be added?**

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Science - Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning

## B. Learning Outcomes

---

**List all common course student learning outcomes for the course.**

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

1. Students will demonstrate an understanding of basic wildlife and fishery systems and organization, including habitats and habitat management.
2. Students will display knowledge of ecology and basic population dynamics.
3. Students will exhibit familiarity with the physiology of wildlife and fishes as well as basic animal behavior.
4. Students will demonstrate an understanding of data collection and use in the fields of wildlife and fisheries management.
5. Students will exhibit knowledge of endangered species, wildlife legislation and law enforcement.

---

### **Institution-specific Student Learning Outcomes**

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

None

## C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

### **Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.**

*In this box, provide a narrative that explains how the proposed course addresses **all** of the components of critical thinking.*

In this Wildlife Science course, students are challenged with real-world problems throughout the course. Students must define problems and then are asked to identify and gather the necessary data and information to address the problems. They evaluate the credibility of the evidence and try to identify any inherent or hidden bias in their data. Students then develop conclusions or solutions that reflect an informed, well-reasoned evaluation of the situation. For example, students investigate the population and carrying capacity of black bears in New Jersey as part one of case study. Students identify the problems of over-population (problem setting). Students analyze real-world data obtained from the NJ Department of Fish and Wildlife (evidence acquisition). Then students answer questions in the lab report pertaining to the data. Based on these questions, students explore parameters of landscape, population dynamics, and cultural/natural carrying capacity (evidence evaluation). Finally, students make judgements about the carrying capacity and provide recommendations for management (reasoning/conclusions). In part two of the assignment, students analyze data from the New Mexico Game and Fish department and make comparisons to the New Jersey data. Students make determinations based on their findings as to whether the cultural/natural carrying capacity of black bears in New Mexico has been reached. Often, just like real life, there is no black-and-white answer and students' evaluations have no absolute right or wrong answer. They must justify their answer with well thought-out logic (reasoning/conclusions).

**Quantitative Reasoning. *Communication/Representation of Quantitative Information; Analysis of Quantitative Arguments; and Application of Quantitative Models***

*In this box, provide a narrative that explains how the proposed course addresses all of the components of quantitative reasoning.*

Student assignments in Wildlife Science incorporate the use and development of quantitative reasoning skills throughout the course. Students are given large sets of real-world data and evaluate which pieces are necessary to address a particular problem or question. Then, they are tasked with evaluating the data graphically, including determining the appropriate graphs to illustrate the raw data. Students interpret and analyze the graphs, and finally apply the information to current real-world problems or situations. Students investigate population dynamics, behaviors, and methods of gathering population data in both the lab and environment. For one example, students investigate moose diet by examining data from the National Park Service dietary analysis study of moose droppings within Isle Royale NP in Michigan. Students use the data provided to conduct a statistical analysis and graphic analysis of the data set (communication/representation). Students work in groups to form their hypothesis and then identify the information needed to test the hypothesis. Students then draw conclusions about the results of their analysis and report their findings in their lab reports, including their graphs. Students then pose additional questions for further research and identify the appropriate data that could be used for their question (application of quantitative models).

**Personal & Social Responsibility. *Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global***

*In this box, provide a narrative that explains how the proposed course addresses 2 of the components of personal & social responsibility.*

In order to incorporate personal and social responsibility into Wildlife Science, students are asked to make policy recommendations based on their data analysis of various ecological topics. Students consider all valid perspectives and then explain and support their own personal position with evidence and reasoning. This includes examination of sustainability issues and how political and economic choices affect environmental sustainability. For students to understand outside perspectives that may be

different from their own, the class hosts guest speakers from a variety of different backgrounds, including a NM Game and Fish Conservation Officer, the Mescalero Apache School Liaison, a Texas Parks & Wildlife Biologist, a US Forest Service Wildlife Biologist, and by listening to a podcast featuring Dr. Drew Latham, a professor at Clemson University, speaking on the ancestral influence of slavery on his perspective of and interaction with nature. These guest speakers have varying personal, social, and cultural perspectives that are important for students to consider in the field of Wildlife Science. Students then evaluate their own perspective and relationship with nature and the cultural and ancestral influences on their personal perspectives. Students write an essay that serves as part of the assessment for this activity (intercultural reasoning and competence).

Students learn to collaborate and communicate different points of view in a role-playing assignment that is designed to imitate interactions that actually occur in the management of natural resources on both state and federal levels. For this assignment, students are first assigned to groups, depending on class size, and then assigned a “job” as an agency employee or community stakeholder. These roles include Forest Ranger, Forest Biologist, Range Manager, National Park Ranger, Silviculturist, Hydrologist, Audubon Society member, Sierra Club member, Game and Fish Conservation Officer, local mountain biking club, four-wheel drive club, and city mayor. Students are then given a scenario involving a local area (research plot) that can be visited, where they must then make evaluations for management decisions for the area, based on their “job” assignments. Students prepare their proposals by first researching the position they hold and if possible, by interviewing a professional. Students then present their proposals for the resource conservation and/or proposed use for the research area to the other members of the class in an organized “meeting”. Students must represent their role’s interests and listen to the interests of others, then come to agreements and compromises to create a management plan for the area (collaboration and teamwork and value systems).

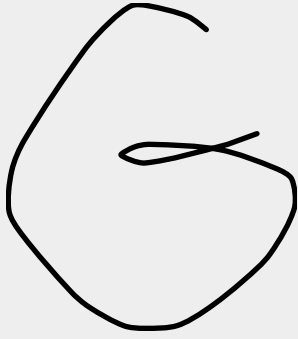
---

#### **D. Assessment Plan (Must be on file with HED by August 1, 2019)**

[Link to Institution's General Education Assessment Plan](#)

In Progress

This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).



**Date**

Mar 17 2021

## Upload Assessment

**Completed** - Mar 17 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

### [Part I\\_II Case Study Black Bears](#)

**Filename:** Part\_I\_II\_Case\_Study\_Black\_Bears.pdf **Size:** 870.2 kB

## Upload Rubric

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

# Application: 0000001507

James Scott - james.scott@nmt.edu  
NM General Education Curriculum

### Summary

**ID:** 0000001507

**Status:** Under Review

**Last submitted:** Mar 29 2021 05:24 PM (MDT)



# Application Form

Completed - Mar 29 2021

## Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

### Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

### Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

### Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.

- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

### Contact Information

Name	Taffeta Elliott
Title	Asst. Professor
Phone	575-835-5439
Email	<a href="mailto:taffeta.elliott@nmt.edu">taffeta.elliott@nmt.edu</a>

### Submitting Institution

Name of HEI	New Mexico Institute of Mining and Technology
Submitting Department	Department of Communication, Liberal Arts and Social Sciences

### Chief Academic Officer

Name	Dr. Steve Simpson
Email	<a href="mailto:steve.simpson@nmt.edu">steve.simpson@nmt.edu</a>

### Registrar

Name	James Scott
Email	<a href="mailto:james.scott@nmt.edu">james.scott@nmt.edu</a>

### Is this application for your entire system (ENMU, NMSU, & UNM)?

(No response)

## Institutional Course Information

Prefix	PSYC
Number	205
Title	Experimental Psychology
Number of credits	3

## Was this course previously part of the New Mexico General Education curriculum?

Yes

## Co-requisite Course

Prefix	PSYC
Number	1110
Title (if applicable)	General Psychology

## New Mexico Common Course Information

Prefix	PSYC
Number	2285
Name	Experimental Psychology

## A. Content Area and Essential Skills

## To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Social & Behavioral Sciences - Communication, Critical Thinking, Personal & Social Responsibility

## B. Learning Outcomes

### List all common course student learning outcomes for the course.

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

PSYC 2285 Experimental Psychology

Basic concepts and research methodology in the study of behavior; emphasis on experimental design, control, and laboratory methods. Learning outcomes: By the end of this course, you will have a good understanding of the scientific method and how it can be applied to the study of Psychology. You will be familiar with potential problems inherent in different research methods. You will be able to recognize confounds in experiments and know how to try to control for them. You will design your own well-controlled experiment and carry it out. You will report the results of your experiment in an APA style research paper.

## Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

Basic concepts and research methodology in the study of behavior; emphasis on experimental design, control, and laboratory methods. Learning outcomes: By the end of this course, you will have a good understanding of the scientific method and how it can be applied to the study of Psychology. You will be familiar with potential problems inherent in different research methods. You will be able to recognize confounds in experiments and know how to try to control for them. You will design your own well-controlled experiment and carry it out. You will report the results of your experiment in an APA style research paper.

---

### C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

**Communication. Genre and Medium Awareness, Application and Versatility; Strategies for Understanding and Evaluating Messages; and Evaluation and Production of Arguments.**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of communication.*

Genre: Students contrast the style, purpose, audience and evidentiary support in different types of publications: science journalism, chapters in edited books, original research articles, popular tradebooks, review articles and meta-analyses. Students learn what types of content are organized in all the sections of an APA style research, and demonstrate that they can find the corresponding components in a peer-reviewed scientific article. Students write their own APA-style research report after collaborating to design and to conduct a human research study. In oral communication, students present their homework answers when called on during class, on a rotating schedule.

Understanding and evaluating messages: In this research methods course, students critically evaluate whether research studies support empirical claims. They relate research results to theory. They search library databases for relevant peer-reviewed empirical research publications. When contrasting original research articles vs. the science news coverage of the same research, students should be able to express the rationale behind purposes that serve different audiences, such as professional consumers of research as opposed to the general public.

Argumentation and its evaluation: Students collaboratively design and conduct their own human research study. When arguing for an interpretation of the results, students make appropriate and ethical in-text citations of scholarly sources and previous scientific literature, in their APA style report. These reports include references in proper APA style.

In an early assignment, students read a science article "with a purpose" of locating information that supports the main argument based on the research studies.

As a counterpoint that repeatedly arises in course activities, students identify unsupported claims and flawed causal inferences in science journalism and tradebooks, such as arguments from experience or intuition, and scientific studies that lack appropriate comparison groups. Students evaluate causal claims in correlational study designs by applying three criteria: covariance, temporal precedence of a manipulated independent variable, and internal validity that rules out alternative explanations.

**Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of critical thinking.*

Students' arguments in short answer exam responses should show that, by the end of this course, they understand the value of empirical research in justifying positions on mental life and behavior.

In exam and homework responses to study descriptions, students identify and evaluate three types of research claims: frequency, association, and causal. They critique descriptions of studies designed to potentially support all three types of claims. They understand that specific problems and research contexts call for an investigation that would support one or another type of claim.

To acquire evidence, students participate in classroom activities that demonstrate types of psychological research study designs. Studies include multivariate correlational designs, independent-groups experiments, and within-groups repeated measures experimental designs. Then students interrogate the construct validity of the variables involved, including several aspects of reliability (test-retest, interrater, and internal reliability) and validity (concurrent, content, criterion, and discriminant validity).

Students examine the obtained study results to formulate conclusions and to argue for interpretations. They ask critically whether they can rule out potential threats to internal validity.

Problem-based assignments task students with addressing questions about four kinds of experimental validity relevant to research claims in psychology: construct validity, statistical validity, external validity, and internal validity. Students can identify some research contexts in which the priority for internal validity or external validity becomes relatively more important, in a mutual tradeoff. By contrasting potential or actual study designs, they can explain the importance of a comparison group, isolation of variables, and random assignment to experimental conditions. They can identify 12 challenging threats to the internal validity of a causal claim based on an experiment or a correlational relation. In written responses to homework and exam questions, students show their ability to interpret graphical representations of the data as possible confirmation or disconfirmation of a hypothesis.

Students attempt to apply research from multiple related studies to revise or improve theory. Students understand that the "Replication Crisis" in psychology is being addressed through pre-registrations of study designs, cross-cultural replications, and meta-analyses.

**Personal & Social Responsibility. *Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global***

*In this box, provide a narrative that explains how the proposed course addresses 2 of the components of personal & social responsibility.*

Intercultural reasoning: In assignments and exam questions that ask them to evaluate research studies, students identify when representative samples (through random selection) support claims about particular populations. They question whether research claims would generalize to other contexts or populations. They avoid overemphasizing the size of a sample, relative to the representativeness of the sample, for purposes of external validity.

Sustainability: Students show that they understand how surveys and polling can support frequency claims in elections, or association claims in a variety of other contexts, to provide evidence on questions of policy or popular interests.

Ethics: Students are placed in groups based on their choice of a research case study that involved ethical violations or controversies. The students collaborate on a written evaluation of whether the protocol was reviewed by an IRB, researchers got informed consent, if there was deception were participants debriefed; and whether it conforms to the three principles for ethical research as laid out by the Belmont Report.

Collaboration: Students collaborate by assigning roles in group projects and classwork activities.

Effectiveness in teamwork is assessed as success on all the components that group members were assigned.

Civic discourse: Students' written responses should show that they are able to consider how empirical results might advance policy in the interests of society. When assigned to evaluate studies in light of the study is situated within the theory-data cycle, students should be able to articulate how researchers' intents and particular priorities contribute to scientific progress. Students articulate the tradeoffs between different kinds of validities that are prioritized differently by researchers with different motivations.

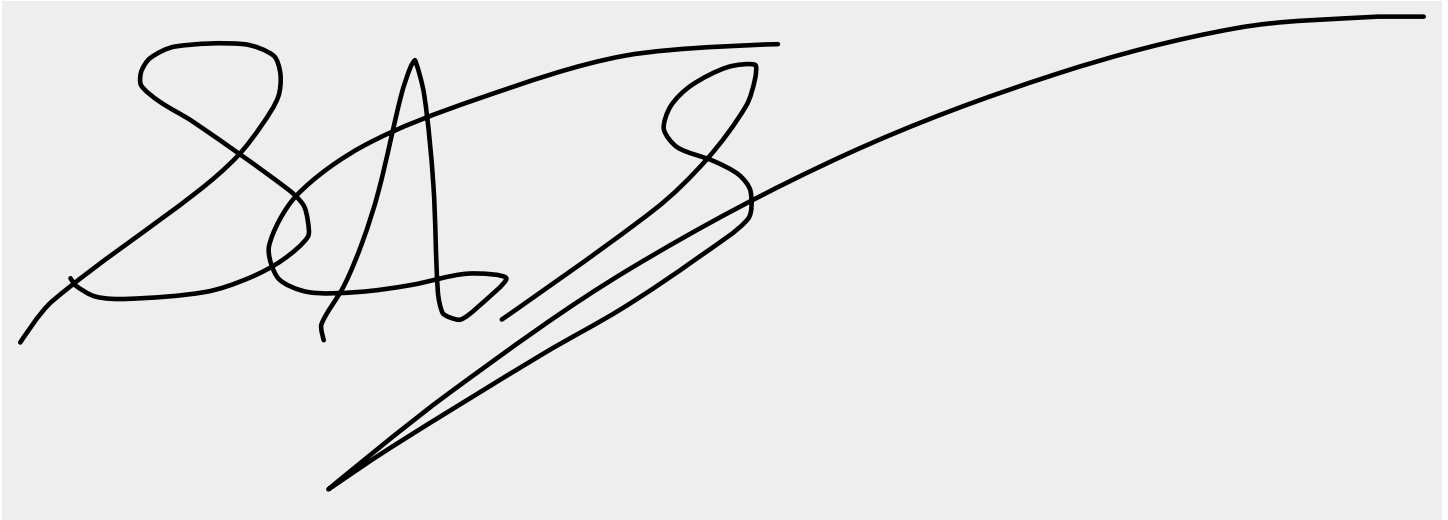


## D. Assessment Plan (Must be on file with HED by August 1, 2019)

Link to Institution's General Education Assessment Plan

<https://www.nmt.edu/academicaffairs/assessment/gened.php>

**This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).**

A large, stylized handwritten signature in black ink, consisting of several loops and a long horizontal stroke extending to the right.

**Date**

Mar 29 2021

## Upload Assessment

**Completed** - Mar 29 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

**[Psyc2285 Sample Assessment APA research report](#)**

**Filename:** Psyc2285\_Sample\_Assessment\_APA\_rese\_jJoYHAR.pdf **Size:** 177.5 kB

## Upload Rubric

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

# Application: 0000001489

Robert Moore - Robert.Moore@rm01.enmuros.cc.nm.us  
NM General Education Curriculum

## Summary

**ID:** 0000001489

**Status:** Under Review

**Last submitted:** Mar 25 2021 03:11 PM (MDT)

## Application Form

**Completed** - Mar 25 2021

## Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17**,

**2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

### Contact Information

Name	Robert Moore
Title	Assistant VP
Phone	5756247001
Email	<a href="mailto:robert.moore@roswell.enmu.edu">robert.moore@roswell.enmu.edu</a>

### Submitting Institution

Name of HEI	ENMU-Roswell
Submitting Department	Science

### Chief Academic Officer

Name	Annemarie Oldfield
Email	<a href="mailto:annemarie.oldfield@roswell.enmu.edu">annemarie.oldfield@roswell.enmu.edu</a>

## Registrar

Name	Linda Neel
Email	<a href="mailto:linda.neel@roswell.enmu.edu">linda.neel@roswell.enmu.edu</a>

### Is this application for your entire system (ENMU, NMSU, & UNM)?

No

## Institutional Course Information

Prefix	BIOL
Number	2210
Title	Anatomy and Physiology I
Number of credits	3

### Was this course previously part of the New Mexico General Education curriculum?

Yes

## Co-requisite Course

Prefix	BIOL
Number	2210L
Title (if applicable)	Anatomy and Physiology I Laboratory

New Mexico Common Course Information

Prefix	BIOL
Number	2210
Name	Anatomy and Physiology I Lecture + Lab

A. Content Area and Essential Skills

To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Science - Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning

B. Learning Outcomes

**List all common course student learning outcomes for the course.**

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

**BIOL 2210 Anatomy and Physiology I**

1. Describe and apply anatomical terminology.
2. Describe multi cellular organization.
3. Distinguish and describe major tissue types.
4. Describe the structure and function of the integumentary system.
5. Describe the structure and function of the skeletal system.
6. Describe the structure and function of the muscular system.
7. Describe the structure and function of the nervous system.
8. Describe the structure and function of the special senses.
9. Define homeostasis and describe specific examples for the integumentary, skeletal, muscular, and nervous systems.

**BIOL 2210 L Anatomy and Physiology I Lab**

1. Apply the scientific method correctly.
2. Collect, analyze, and interpret scientific data.
3. Use laboratory equipment, such as a microscope, correctly and safely.
4. Analyze the structure of cells, cell membranes, and cell organelles with respect to their respective physiological roles.
5. Identify the anatomical components of human tissues, organs, and organ systems using prepared microscope slides, models, diagrams, illustrations, or cadaver specimens.
6. Describe the functional characteristics of human tissues, organs, and organ systems using prepared microscope slides, models, diagrams, illustrations, or cadaver specimens.
7. Analyze the physiological processes of the integumentary, skeletal, muscle, and nervous systems.

## Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

NA

---

### C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

**Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of critical thinking.*

One way that critical thinking skills are assessed in the lecture course is that for each chapter of the text, students use a database program that has thousands of questions for each chapter that span the range of Bloom's Taxonomy that are assigned for homework. I can assess student understanding in multiple ways and at multiple levels. For example, questions start with the basics like identifying the names of the major cellular structures or principal muscles, which is important for our course. Then, I assess their ability to apply their functions to conditions and symptoms when the regular homeostatic mechanisms are disrupted. Another high-level activity for students utilizes interactive animations. These high-resolution, comprehensive animations cover complex physiological processes and require the student to answer questions, interact with the artwork, and drive the animation forward. They must demonstrate an understanding in order for the animation to continue. It is an active learning animation, rather than just a passive viewing experience. The assignments not only require the students to view and participate in the animation; they tag them to a series of questions beginning with remembering baseline information from the animation and ramping up to higher level, case study-like questions and problems.

For the laboratory course, the goal is to promote critical thinking and relate learning to real world scenarios rather than rely mainly on rote memorization of scattered facts. One way this is accomplished is by using clinical case studies. These allow us to create learning environments that give students opportunities to apply, analyze, synthesize, and evaluate information. For example, after a discussion of the skeletal system and joints in lecture, the students have are presented with a clinical case study in lab. The students are broken into groups of three or four and given a case study concerning an older adult involved in a skiing accident. In a stepwise fashion, students are introduced to the evaluation of the injury, structure of the knee joint, complicating factors, treatment of the injury, rehabilitation, and the patient's eventual recovery. After answering several groups of questions, students are brought back together to discuss their individual group answers. Each group of students is asked, at random, to present one part of the case to the entire class and share their findings. See Attachment 1 – Knee Injury Case Study and Questions.



**Quantitative Reasoning. Communication/Representation of Quantitative Information; Analysis of Quantitative Arguments; and Application of Quantitative Models**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of quantitative reasoning.*

The majority of the quantitative reasoning skills are taught in the laboratory course. However, during lecture basic measurements, conversions, graphing, and how to interpret graphs are discussed and illustrated. In the laboratory, quantitative reasoning is used throughout the semester. For example, at the beginning of the semester students are taught a refresher course about the metric system, converting units, and dimensional analysis. Students are then divided into small groups of three or four and given exercises to practice unit conversions. Lastly, the students are presented with application problems. See Attachment 2 – Metric System Lab.

All experiments resolve around the use of the scientific method, data collection, interpretation of data, making conclusions, and making recommendations for further studies. All lab meetings require students to gather quantitative data. This data is then analyzed and interpreted. Students are taught to use Word, Excel, and PowerPoint to illustrate data in various formats. Basic statistical information is taught and used by students like central tendency (mean, median, and mode), hypothesis testing and statistical significance, and probability,.

**Personal & Social Responsibility. Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global**

*In this box, provide a narrative that explains how the proposed course addresses 2 of the components of personal & social responsibility.*

During lecture, the normal homeostatic mechanisms of the human body are discussed for each body system. However, abnormal health conditions and disease states are discussed, especially as it relates to New Mexico. Students are exposed to and address conditions like heart disease, cancer, emphysema, stroke, and diabetes. Students collaborate with each other in both the lecture and lab settings. This is especially true for the lab as students are able to form small groups to work with each other and move around the room more easily. Each week students work in groups to complete lab activities. Some grades are based on group projects and group participation. See Participation Rubric. Group participation is used for the purpose of promoting gains in content knowledge and critical thinking as well as demonstrating the importance of collaboration and teamwork.

As previously mentioned, student groups are formed to work on clinical case studies. The groups are required to work through assigned cases in a clinical manner to identify important questions and variables, state hypotheses, integrate important content information (supported by lecture), analyze data, and draw reasoned clinical conclusions on possible diagnoses and the involved anatomy. Clinical case studies serve to connect student experiences to textbook content, making them more relevant to student daily life. This increases student engagement and reinforces clinical principles and critical thinking

Many, if not all, of the students taking this course are looking for a career in one of the health professions. Professionalism is a core competency for all healthcare professionals and delivering the highest quality patient care is of utmost importance. Professionalism and ethics are often addressed as part of the clinical cases under review.

#### D. Assessment Plan (Must be on file with HED by August 1, 2019)

Link to Institution's General Education Assessment Plan

[https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan\\_ENMURoswell.pdf](https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan_ENMURoswell.pdf)

**This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).**

A handwritten signature in black ink, consisting of the letters 'R M' followed by a diagonal slash and then 'A M D'.

**Date**

Mar 25 2021

## Upload Assessment

**Completed** - Mar 25 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

### [BIOL 2210 Assignment](#)

**Filename:** BIOL\_2210\_Assignment.pdf **Size:** 467.8 kB

## Upload Rubric

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

# Application: 0000001481

Robert Moore - Robert.Moore@rm01.enmuros.cc.nm.us  
NM General Education Curriculum

## Summary

**ID:** 0000001481

**Status:** Under Review

**Last submitted:** Mar 25 2021 11:15 AM (MDT)

## Application Form

**Completed** - Mar 25 2021

## Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course

# Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

## Contact Information

Name	Robert Moore
Title	Assistant VP
Phone	5756247001
Email	<a href="mailto:robert.moore@roswell.enmu.edu">robert.moore@roswell.enmu.edu</a>

## Submitting Institution

Name of HEI	ENMU-Roswell
Submitting Department	Humanities

## Chief Academic Officer

Name	Annemarie Oldfield
Email	<a href="mailto:annemarie.oldfield@roswell.enmu.edu">annemarie.oldfield@roswell.enmu.edu</a>

## Registrar

Name	Linda Neel
Email	<a href="mailto:linda.neel@roswell.enmu.edu">linda.neel@roswell.enmu.edu</a>

**Is this application for your entire system (ENMU, NMSU, & UNM)?**

No

**Institutional Course Information**

Prefix	HIST
Number	1160
Title	Western Civilization II
Number of credits	3

**Was this course previously part of the New Mexico General Education curriculum?**

Yes

**Co-requisite Course**

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)

**New Mexico Common Course Information**

Prefix	HIST
Number	1160
Name	Western Civilization II

**A. Content Area and Essential Skills**

## To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Humanities - Information & Digital Literacy, Critical Thinking, Personal & Social Responsibility

## B. Learning Outcomes

**List all common course student learning outcomes for the course.**

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

1. Students will be able to EXPLAIN in their work how humans in the past shaped their own unique historical moments and were shaped by those moments, and how those cultures changed over the course of the centuries for the history of the western world from the early modern era to the present day. Bloom Taxonomy's Cognitive Process: REMEMBER AND UNDERSTAND
2. Students will DISTINGUISH between primary and secondary sources, IDENTIFY and EVALUATE evidence and EMPATHIZE with people in their historical context. Bloom Taxonomy's Cognitive Process: ANALYZE, REMEMBER, EVALUATE, CREATE
3. Students will SUMMARIZE and APPRAISE different historical interpretations and evidence in order to CONSTRUCT past events. Bloom Taxonomy's Cognitive Process: UNDERSTAND, EVALUATE, APPLY
4. Students will IDENTIFY historical arguments in a variety of sources and EXPLAIN how they were constructed, EVALUATING credibility, perspective, and relevance. Bloom Taxonomy's Cognitive Process: REMEMBER, UNDERSTAND, EVALUATE
5. Students will CREATE well-supported historical arguments and narratives that demonstrate an awareness of audience. Bloom Taxonomy's Cognitive Process: CREATE, APPLY
6. Students will APPLY historical knowledge and historical thinking "in order to infer what drives and motivates human behavior in both past and present." Bloom Taxonomy's Cognitive Process: APPLY, ANALYZE

## Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

NA

### C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

#### **Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.**

*In this box, provide a narrative that explains how the proposed course addresses **all** of the components of critical thinking.*

[\*Problem Setting:] During the semester, students explore a diverse array of information about Western history from the Early Modern period up to the present (with a selected emphasis on non-western cultures who influenced the western world). Students participate in individual and group activities while exploring the tapestry of diverse populations, major geo-political and economic movements, and the development of arts, sciences, and culture. Students share their reactions and experiences through reflective documents, quizzes, exams, and essays; they participate in discussions nearly each class where they share insights about assigned readings.

[Evidence Acquisition:] Students access and consider evidence available through their assigned course texts, the library's general collection, and the University's numerous databases (e.g., EBSCO, Academic



Search Complete, ProQuest, JSTOR, etc.), and faculty-provided material to support their observations, analyses, and arguments forwarded in class discussion and on assignments. Several assignments, like their reflective essays, require them to rally information they have accumulated about influential persons from the Western tradition, and to enhance their research and discovery skills through effective use of outside sources that support or challenge a traditional interpretation of historical events or ideas.

[\*Evidence Evaluation:] Discussions compel students to respond to the rich tableaux of Western history, primary texts (including poems, paintings, or sculpture, for example), other students' positions, as well as professional critiques and studies; the discussions and written responses model techniques of textual and cultural evaluation. For many of the statements students make (in discussions, for example), we emphasize currency, relevance, authority, accuracy, and purpose. Students are working on creating their own credible opinions; many assignments make conscious the techniques of evaluation necessary to assure thoughtful and hearty presentation (in one exercise, they respond to a professional historian's accounting of a significant moment in Western history).

[\*Reasoning/Conclusion(s):] Students arrive at defensible, relevant, and interesting conclusions based on sound and creative premises in their short assignments. They are guided to ask questions, explore, surmise, posit opinions, and support their opinions through different strategies of deductive reasoning and Socratic teaching. Repeated exposure to primary and secondary sources (monographs, photographs, novels, film, faculty lecture) allow students to engage examples of good and poor reasoning, logical fallacies, misguided conclusions, affirming organization, and general patterns of argument valuable for college-level academic discourse.

**Personal & Social Responsibility. *Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global***

*In this box, provide a narrative that explains how the proposed course addresses 2 of the components of personal & social responsibility.*

[\*Intercultural Reasoning and Intercultural Competence:] During the semesters, through the observation and encounter of Western history (in local, regional, and nation-state views) students immerse themselves in variety of socio-cultural issues represented across time periods, cultures, regions, and styles; examine how past socio-cultural, geographic, historical influences informs the modern Western world; and learn to appreciate and approach differing political, economic, religious, and other cultural forces that have affected the Western world across generations. Student progress is measured in part on their ability to recognize and respond to Western people's unique cultures as they intersect, blend, and conflict with each other and different traditions—from isolated nation states to world powers; they reflect their understanding in short projects and quizzes; many of the assignments ask them to engage, react to, and otherwise consider the central ways the Western world is truly intercultural.

[\*Civic Knowledge and Engagement—Local and Global:] Across the semester, students are introduced to the Western world's history as a local and global phenomena, manifesting in both small cities and within larger city-states; students learn about the influences of global culture on the Western world (for example, how Islamic tradition shaped politics); they learn not only about how larger influences shaped the Western world, but about how local identities emerged from regional-specific concerns (the emergence of super powers, for example). One project, for example, asks students to think about how a specific moment from Western history (the Irish Famine, for example) emerged from both local, national, and world-wide concerns. Nearly every reading assignment, in terms of content, embraces the conversation of civic responsibility either as a critique, a model, or an investigation of communities in action; the section on Western art, for example, provides the leaping-off point for conversations about how the individual is in conflict with, correspondent to, or estranged from what might be defined as "Western society"; the students' essay and discussions allow them to reflect and sharpen their appreciation.

**Information & Digital Literacy. *Authority and Value of Information; Digital Literacy; Information***

## ***Structure; and Research as Inquiry***

*In this box, provide a narrative that explains how the proposed course addresses **3** of the components of digital literacy.*

[\*Digital Literacy / Information Structures:] Students master Blackboard both to initiate and participate in several course discussions, communicate with their classmates and instructor, check their grades, and receive course-wide and institutional updates. Many class sessions and/or meeting are held over Teams or Zoom. Students engage other important digital tools, including email, PowerPoint, web browsers, and often other platforms like Instagram for communication, research, and production of artifacts. Students have access to tutoring services as well as a wealth of online tutorials and services available to assist their academic progress (Youtube videos, tutorials, Purdue Owl, etc.). These digital tools manifest in their presentations, their research for essays, and their formal explorations of topics and posed questions.

[\*Information Structures:] Students embrace the library, both physical and virtually, as an enormous campus resources to facilitate and conduct research and investigation. They have access to and are required to interact with the library's digital resources, including e-Books, electronic articles, and electronic reference works, especially with a short essay that asks them to research and report back about a specific historical personage.

[\*Research as Inquiry:] Assignments and academic interaction in the classroom emphasize a student's ability to initiate, conduct, and arrive at conclusions/opinions through a variety of research methods. The course teaches students, first, to listen carefully and then to ask good questions. In a series of written assignments, for example, students are asked to consider the validity of traditional interpretations of historical events based on their introduction to new or competing forms of historical evidence and present an analysis of their understanding in light of a larger historical identity. Assignments challenge students to appreciate their role in the knowledge-making adventure of academic, scholarly investigation through the process of asking questions and seeking opinions that are well-supported and engaging. Their research is often guided by specific goals (they are asked, for example, to research an important representative of the Western world's artistic community), but often they are allowed to rummage around in more general ways (in an essay, for example, they can select any moment from the modern to present Western history, explore, and then explain why the moment was important or pivotal). Nearly every project or assignment requires students to embrace the "research as inquiry" model, but their trial-and-error work with historical materials is the clearest evidence of their pursuit of knowledge through

inquiry.

#### **D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

[https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan\\_ENMURoswell.pdf](https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan_ENMURoswell.pdf)

**This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).**

Handwritten signature in black ink, consisting of the letters 'Rm' followed by a diagonal slash and the letters 'AMO'.

**Date**

Mar 25 2021

## **Upload Assessment**

**Completed** - Mar 25 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

### **HIST 1160 Assignment**

**Filename:** HIST\_1160\_Assignment.pdf **Size:** 528.7 kB

## **Upload Rubric**

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context

of the course.

## Application: 0000001499

James Scott - james.scott@nmt.edu  
NM General Education Curriculum

### Summary

**ID:** 0000001499

**Status:** Under Review

**Last submitted:** Mar 29 2021 05:24 PM (MDT)

## Application Form

**Completed** - Mar 29 2021

## Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

### Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

### Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

### Contact Information

Name	Taffeta Elliott
Title	Asst. Professor
Phone	575-835-5439
Email	<a href="mailto:taffeta.elliott@nmt.edu">taffeta.elliott@nmt.edu</a>

### Submitting Institution

Name of HEI	New Mexico Institute of Mining and Technology
Submitting Department	Department of Communication, Liberal arts and Social Sciences

### Chief Academic Officer

Name	Dr. Steve Simpson
Email	<a href="mailto:steve.simpson@nmt.edu">steve.simpson@nmt.edu</a>

## Registrar

Name	James Scott
Email	<a href="mailto:james.scott@nmt.edu">james.scott@nmt.edu</a>

### Is this application for your entire system (ENMU, NMSU, & UNM)?

No

## Institutional Course Information

Prefix	PSYC
Number	1110
Title	Introduction to Psychology
Number of credits	3

### Was this course previously part of the New Mexico General Education curriculum?

Yes

## Co-requisite Course

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)

New Mexico Common Course Information

Prefix	PSYC
Number	1110
Name	Introduction to Psychology

A. Content Area and Essential Skills

To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Social & Behavioral Sciences - Communication, Critical Thinking, Personal & Social Responsibility

B. Learning Outcomes



**List all common course student learning outcomes for the course.**

Common Course Student Learning Outcomes (find Common Course SLOs at:

<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

PSYC 1110 Introduction to Psychology

Upon completion of the course students should be able to:

1. Explain how the scientific method and psychological research methodologies are used to study the mind and behavior.
2. Recall key terms, concepts, and theories in the areas of neuroscience, learning, memory, cognition, intelligence, motivation and emotion, development, personality, health, disorders and therapies, and social psychology.
3. Explain how information provided in this course can be applied to life in the real world.
4. Identify the major theoretical schools of thought that exist in psychology as they relate to the self, the culture, and the society.

## Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

Students should be able to:

1. Explain how the scientific method and psychological research methodologies are used to study the mind and behavior.
2. Recall key terms, concepts, and theories in the areas of neuroscience, learning, memory, cognition, intelligence, motivation and emotion, development, perceptual processes, health, disorders and therapies, and social psychology.
3. Explain how information provided in this course can be applied to life in the real world.
4. Identify the major theoretical schools of thought that exist in psychology as they relate to the self, culture, and society.

You will have a good understanding of the general principles and sub-fields of psychology. You will have a better comprehension of the brain and its influence on cognitive processes and behavior. In addition, you will have a better understanding of the scientific method and how it can be applied to the study of mental processes, behavior and the brain.

---

### C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

**Communication. Genre and Medium Awareness, Application and Versatility; Strategies for Understanding and Evaluating Messages; and Evaluation and Production of Arguments.**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of communication.*

This course supports students in building a variety of communication skills. Throughout the course, students read for understanding, engage in Think-Pair-Share discussions, and write homework addressed as to a peer audience. Discussions are aimed at resolving potential misconceptions in the early stages of learning. Homework requires students to summarize material effectively, to critically evaluate messages (particularly research claims) and to produce their own persuasive arguments. Discussion board assignments in the Learning Management System (LMS) require students to review content in their own words. These discussions also allow them to share their interests across related contexts, and to consider the societal implications of what the course covers. In short-answer responses to exam questions, students apply theory and concepts to novel real-world applications of psychology.

Towards the end of the course, students write a term paper that is a conceptual analysis essay. Their audience is a peer college student who has not yet taken this course. In the essay, the students apply two or three concepts from the psychology content of the course, to a recent relevant news article of the student's choice. The assignment charges students with dual purposes: both to apply a theoretical framework and to shed explanatory light on the claims and phenomena in the news. They evaluate the strength of claims in the news. To support their own claims in the narrative of the essay, they make appropriate and ethical in-text citations and include references

**Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of critical thinking.*

Critical thinking develops through problem-based assignments questioning each part of the theory-data cycle: research problems (presented through lecture, publications, or videos), empirical evidence, interpretation of evidence in light of hypotheses, and ultimately argumentation based on patterns of empirical results.

In the first homework of the course, students are asked to propose two research study designs that would address two distinct kinds of problems. One of the background question prompts invites a true experimental design, because the motivating hypothesis targets a causal mechanism that suggests an independent variable that would be easy to manipulate (such as the color of athletes' uniforms). The other research question invites a correlational design, because it involves either a participant variable (such as gender identity) that cannot be manipulated by a researcher, or else a construct that would be unethical to manipulate (such as drug use by teens, or child abuse, or sexual activity).

Students acquire evidence in several class demonstrations of memory and perceptual illusions. They also observe the behavioral reactions of strangers in public when pairs of students take turns violating a social norm. In written responses to homework and exam questions, students show whether they are able to interpret graphical representations of the data as possible confirmation or disconfirmation of a hypothesis. They begin to question the reliability and validity of measures.

In exam and homework responses to study descriptions, students are asked to judge the appropriateness of a study design for supporting a claim. By contrasting potential or actual study designs, they begin to appreciate the importance of a comparison group, isolation of variables, and random assignment to experimental conditions. They can identify some challenging threats to the internal validity of a causal claim based on an experiment or a correlational relation. Finally, they show through responses to short-answer questions, and the term essay, that they can relate claims to theoretical explanations.

**Personal & Social Responsibility. *Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global***

*In this box, provide a narrative that explains how the proposed course addresses 2 of the components of personal & social responsibility.*

Intercultural reasoning: Particularly the social psychology content in this course prepares students for learning standards that expect them to know how to behave and communicate during intercultural interactions. Written assignments and exam questions ask students to apply the Fundamental Attribution Error, in both collectivistic cultures and individualistic cultures.

Civic discourse, knowledge, and engagement: To assess students' ability to shift perspectives on local or global issues, specific homework and exam questions ask them to articulate the probable direction of a self-serving bias. Students identify the risks in groupthink and group polarization. They should be able to discuss tradeoffs between the advantages and dangers inherent in behavioral compliance and obedience. They should be able to explain social loafing, deindividuation, and factors that alter bystander reactions to seeing someone who needs help. They should predict whether certain conditions might promote stereotype threat, and they should be able to relate strategies for avoiding the detriment to performance that is observed under stereotype threat. Problem-based learning

Ethical reasoning: Social psychology content on altruism and helping (as topics) prepares students to anticipate shifts in the ethical behaviors of individuals who find themselves in groups with different norms or assigned responsibilities. Students can apply concepts such as the "power of the situation" to the pressure applied by military authorities commanding interrogations without a field manual. On exams and in classroom exercises, students should be able to explain ethical issues in research in terms of the the APA guidelines for conducting research.

Collaboration skills: In pairwork during class and on assignments like the social norm violation, students need to practice listening skills, articulate shared values, assign roles, and engage in civil discourse.

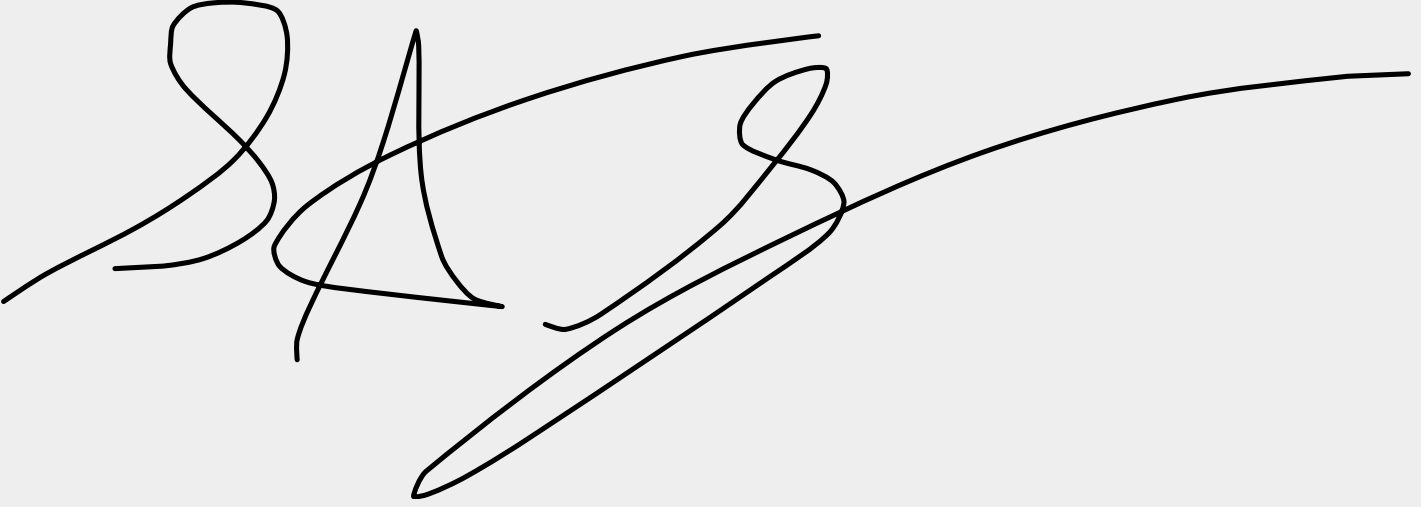
Achievement of standards in teamwork is assessed as success in fulfilling specific tasks within homework assignments.

#### D. Assessment Plan (Must be on file with HED by August 1, 2019)

Link to Institution's General Education Assessment Plan

<https://www.nmt.edu/academicaffairs/assessment/gened.php>

This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).

A large, stylized handwritten signature in black ink, consisting of several loops and a long horizontal stroke extending to the right.

Date

Mar 28 2021

## Upload Assessment

Completed - Mar 28 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

[PaperAssignmentInstructionsFa20](#)

Filename: PaperAssignmentInstructionsFa20.pdf Size: 260.3 kB

## Upload Rubric

Incomplete

The optional rubric should illustrate how at least one of the essential skills is assessed within the context

of the course.

# Application: 0000001451

James Scott - james.scott@nmt.edu  
NM General Education Curriculum

## Summary

**ID:** 0000001451

**Status:** Under Review

**Last submitted:** Mar 25 2021 03:17 PM (MDT)

## Application Form

**Completed** - Mar 25 2021

## Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

### Contact Information

Name	Matt Johnson
Title	Assistant Professor
Phone	575-835-5445
Email	<a href="mailto:matthew.johnson@nmt.edu">matthew.johnson@nmt.edu</a>

### Submitting Institution

Name of HEI	New Mexico Institute of Mining and Technology
Submitting Department	Department of Communication, Liberal Arts and Social Sciences

### Chief Academic Officer

Name	Dr. Steve Simpson
Email	<a href="mailto:steve.simpson@nmt.edu">steve.simpson@nmt.edu</a>



## Registrar

Name	James Scott
Email	<a href="mailto:james.scott@nmt.edu">james.scott@nmt.edu</a>

## Is this application for your entire system (ENMU, NMSU, & UNM)?

(No response)

## Institutional Course Information

Prefix	SPAN
Number	2110
Title	Intermediate Spanish I
Number of credits	3

## Was this course previously part of the New Mexico General Education curriculum?

Yes

## Co-requisite Course

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)

New Mexico Common Course Information

Prefix	SPAN
Number	2110
Name	Intermediate Spanish I

A. Content Area and Essential Skills

To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Humanities - Information & Digital Literacy, Critical Thinking, Personal & Social Responsibility

B. Learning Outcomes

**List all common course student learning outcomes for the course.**

Common Course Student Learning Outcomes (find Common Course SLOs at:

<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

SPAN 2110. Spanish III. Common Course Student Learning Outcomes (find Common Course SLOs at: [https://hed.state.nm.us/uploads/documents/Course\\_Catalog\\_V18.pdf](https://hed.state.nm.us/uploads/documents/Course_Catalog_V18.pdf)) 1. Students can participate in conversations on familiar topics using sentences and series of sentences. 2. Students can handle short social interactions in everyday situations by asking and answering a variety of questions. 3. Students can usually say what they want to say about themselves and their everyday life. 4. Students can make presentations on a wide variety of familiar topics using connected sentences 5. Students can write on a wide variety of familiar topics using connected sentences. 6. Students can understand the main idea in messages and presentations on a variety of topics related to everyday life and personal interests and studies. 7. Students can understand the main idea in conversations that they overhear. 8. Students can understand the main idea of texts related to everyday life and personal interests or studies.

## Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

Intermediate Spanish Learning Outcomes (SPAN 215 and SPAN 216): In line with the recommendations of the American Council on the Teaching of Foreign Languages (ACTFL), students in the intermediate Spanish sequence at NMT will develop solid competencies in five intertwined goal areas for foreign language learning: Communication, Cultures, Connections, Comparisons, and Communities.

- Communication: You will learn to interact with one another and negotiate meaning using Spanish, sharing information, feelings, reactions, and opinions. You will learn to analyze and interpret spoken and written Spanish about a variety of basic topics; and you will develop skills in presenting information on topics related to your own lives and life in the Hispanic world.
- Cultures: You will learn to relate your own cultural backgrounds to the diverse cultures of the Hispanic world. You will learn to interact in Spanish with cultural competence and understanding, and reflect on the complex relationship between language and culture.
- Connections: You will begin connecting your study of the Spanish language to your broader personal, academic, and professional goals and life situations.
- Comparisons: You will relate your study of the Spanish language to the other languages you speak and use in your academic and everyday lives. You will gain insight into the nature of language and culture, and you will develop a series of metacognitive skills related to learning languages.
- Communities: You will build your capacity to use Spanish in the multilingual communities of New Mexico, the United States, and the Hispanic world. You will also develop the skills and motivation needed to become lifelong learners of the Spanish language.

## C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

### **Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of critical thinking.*

SPAN 215 is taught using communicative and task-based approaches to language learning, in line with the recommendations of the American Council on the Teaching of Foreign Languages (ACTFL). As students develop their communicative capacities, they exercise critical thinking in a variety of manners. When learning new vocabulary, students study textbook pages that combine Spanish words and visual images, and they must infer the meanings of the words. Grammar lessons also ask students to use inference to derive general rules from specific examples, such as rules for conjugating past-tense verbs. Students are assessed informally in class through comprehension checks and short activities (fill-in-the-blank, multiple choice, short answer), and are assessed formally in weekly homework assignments and two major exams. In class, students are also asked to compare and contrast the structures of English and Spanish, helping them to think critically about language and communication.

Students study a series of videos and newspaper articles in class and in homework assignments. Preliminary activities ask students to anticipate what they will be reading about, based on article titles or general topics. This allows them to identify questions and problems the materials may help them resolve, and orients them in acquiring evidence from materials that will push the limits of their listening and reading skills. Over the course of the semester, they also learn a series of reading and listening strategies via class activities and short homework assignments. Each chapter contains a short literary reading, and these texts are supplemented by articles and videos about Hispanic life and culture. After completing readings/viewings, students' capacity to evaluate evidence is evaluated through informal

comprehension checks and short exercises, generally multiple-choice or short answer. Class discussions ask them to apply reasoning and draw conclusions regarding the material. For example, in a chapter on celebrations and holidays in the Hispanic world, students watch videos and complete readings on El Día de los Reyes Magos and El Día de los Muertos and compare/contrast their own family's holiday traditions to the traditions of the Hispanic world.

Finally, the summative project of SPAN 215 is a research presentation in which students choose a specific country and a specific topic related to the textbook chapters. Possible topics include racial/ethnic/sexual diversity in the Hispanic world; sports and pastimes; noteworthy holidays and cultural celebrations; and tourism in Latin America. Students use presentation software (Google Slides or PowerPoint) and video-recording technologies (Zoom, Google Slides or PowerPoint) to create interactive presentations that classmates view during the final week of class.

**Personal & Social Responsibility. *Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global***

*In this box, provide a narrative that explains how the proposed course addresses 2 of the components of personal & social responsibility.*

Students in SPAN 215 learn that language and culture are deeply intertwined: to learn to communicate in Spanish, one must learn an array of cultural competencies. In SPAN 215, this includes learning practices for politely requesting help using the subjunctive mood; cultural norms for visiting other peoples' homes during celebrations and holidays; and vocabulary for discussing and respecting cultural diversity. In class, students are asked to reflect on differences between North American and Hispanic cultural practices. Their intercultural reasoning skills are assessed via informal comprehension checks in class, their successful use of cultural practices in a series of role-playing tasks, and short written paragraphs in weekly homework assignments. In SPAN 215, one chapter focuses on housing, architecture, and cultural norms for visiting other people's homes. Throughout this chapter, students are prompted to relate local (New Mexican) and global (Latin American) cultural practices and architectural norms, and they develop a nuanced understanding of home life in different cultures.

SPAN 215 utilizes a student-centered approach, with frequent pair and small group work. In virtual

classes, this includes extensive use of breakout rooms to allow for collaboration and communication between students. In in-person classes, small group work and pair activities are also employed. Students build teamwork and collaborative skills by creating skits to perform for fellow classmates and completing short writing assignments during group activities. In group activities, students are often asked to clearly define each member's role, and to produce a completed product (a skit, or a shared Google Doc) within a specified timeframe. They learn accountability and ethical responsibility, in that their completion of tasks is necessary to support their peers.

Finally, the summative project of SPAN 215, the research presentation, asks students to synthesize many of the skills discussed above. In an initial outline assignment, students demonstrate their capacity to describe intercultural differences and formulate ethically and culturally appropriate research questions. In their research and their presentation, they broaden their understanding of cultural differences and apply their knowledge of Hispanic culture in presentations that profile key areas of contemporary Hispanic life and culture.

### **Information & Digital Literacy. *Authority and Value of Information; Digital Literacy; Information Structure; and Research as Inquiry***

*In this box, provide a narrative that explains how the proposed course addresses **3** of the components of digital literacy.*

As students build their communicative capacities in Spanish, they utilize a broad variety of online sources. They are asked to use dual-language dictionaries such as [www.wordreference.com](http://www.wordreference.com) and [www.spanishdict.com](http://www.spanishdict.com), and throughout the semester they learn to use a variety of features of these dictionaries, such as verb charts, example sentences, and audio recordings of word pronunciation by native speakers. They are also trained to toggle between Spanish and English pages on Wikipedia to study vocabulary relating to their interests. For example, one student may be interested in learning how to talk about math with greater fluency, and they learn how to search math terms (such as "square root" and "logarithm") in Wikipedia, toggling to the Spanish page to see how these terms are used in Spanish. They also learn to use Google and Google Images to search for and find information on grammar topics. Through use, they learn to judge the value of different sources information. They are assessed in a series of short meta-cognitive assignments in which their responses demonstrate their digital literacy as

students of the Spanish language.

During the semester, students also complete two research presentations: a short, informal presentation in Spanish on one of the Latin American countries profiled in the course textbook, and a longer, formal presentation on a topic related to the cultural themes covered in class. For both presentations, they are asked to construct a PowerPoint/Google Slides presentation with properly cited visuals (URLs or hyperlinks), and they are given a brief lesson in class concerning basic research practices, with particular emphasis on the use of sites like Wikipedia and YouTube to encounter textual and visual information. Students are given a set of broad questions to guide their research, and must structure their presentations in a way that fulfills the assignments' dual objective of informing and entertaining the other students in class. Students are assessed on their use of Spanish and on their capacity to utilize presentation apps and visual materials to communicate information.

Throughout the semester, students in SPAN 215 also complete a series of video assignments. They record themselves communicating information about different course topics at the end of textbook chapters using the video app FlipGrid, and they complete their final presentation project using presentation software and video-recording software.

---


#### **D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

<https://www.nmt.edu/academicaffairs/assessment/gened.php>



This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).

A large, stylized handwritten signature in black ink on a light gray background. The signature is composed of several loops and a long, sweeping horizontal line extending to the right.

**Date**

Mar 24 2021

## Upload Assessment

**Completed** - Mar 22 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

[\*\*Matt Johnson--Gen Ed Certification Supporting Document \(SPAN 2110\) Assessment\*\*](#)

**Filename:** Matt\_Johnson--Gen\_Ed\_Certification\_Sup\_NoQzRVb.pdf **Size:** 158.3 kB

## Upload Rubric

**Completed** - Mar 22 2021

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

[\*\*Span 2110 Rubric\*\*](#)

**Filename:** Span\_2110\_Rubric.pdf **Size:** 152.3 kB

**Application: 0000001511**

## Summary

**ID:** 0000001511

**Status:** Under Review

**Last submitted:** Mar 29 2021 05:25 PM (MDT)

## Application Form

**Completed** - Mar 29 2021

## Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

### Contact Information

Name	Nicholas Kelly
Title	Assistant Professor
Phone	(No response)
Email	<a href="mailto:nicholas.kelly@nmt.edu">nicholas.kelly@nmt.edu</a>

### Submitting Institution

Name of HEI	New Mexico Institute of Mining and Technology
Submitting Department	Department of Communication, Liberal Arts and Social Sciences

### Chief Academic Officer

Name	Dr. Steve Simpson
Email	<a href="mailto:steve.simpson@nmt.edu">steve.simpson@nmt.edu</a>

## Registrar

Name	James Scott
Email	<a href="mailto:james.scott@nmt.edu">james.scott@nmt.edu</a>

## Is this application for your entire system (ENMU, NMSU, & UNM)?

(No response)

## Institutional Course Information

Prefix	HUMA
Number	204
Title	Hackers, Politics, and Culture
Number of credits	3

## Was this course previously part of the New Mexico General Education curriculum?

No

## Co-requisite Course

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)

## New Mexico Common Course Information

Prefix	HUMN
Number	2040
Name	Hackers, Politics, and Culture

### A. Content Area and Essential Skills

#### To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Humanities - Information & Digital Literacy, Critical Thinking, Personal & Social Responsibility

### B. Learning Outcomes

#### List all common course student learning outcomes for the course.

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

This course is currently being submitted as a unique course to the state catalog.

## Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

On the course syllabus, the course learning outcomes state that students will:

- Increase their understanding of the intertwined history of hacking, politics, and culture.
- Learn how to evaluate hacker/hacktivist actions in terms of Objectives, Tactics, Tools, and Impacts
- Research the contexts and dialog surrounding historical events
- Understand how legislation has responded to emerging technologies
- Analyze visual and written documents
- Integrate research and cite material to make compelling analytical arguments
- Communicate effectively in a variety of media
- See how computer hackers draw inspiration from popular culture and how popular culture responds to emerging technologies

---

### C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

***Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.***

*In this box, provide a narrative that explains how the proposed course addresses all of the components of critical thinking.*

Students learn to critically evaluate visual, audio, and textual material to gather evidence for arguments. For example, students must analyze video clips released by hacker groups such as Anonymous to discern the groups political and social motives during hacktivist actions. Course assignments and class activities ask students to explain and reason through connections between claims and evidence. Students learn to evaluate information found on internet sources. Students evaluate peers' arguments, reasoning, and use of evidence during in-class project workshops sessions, which allow students to offer and receive feedback on work-in-progress assignments.

***Personal & Social Responsibility. Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global***

*In this box, provide a narrative that explains how the proposed course addresses 2 of the components of personal & social responsibility.*

Students study prominent activist organizations and social movements, learning about groups such as Black Lives Matter, The Women's March, and anti-war groups of the 1960s. Students see how activists, organizers, and social movements have utilized digital technologies and social media. For example, they study how the Black Lives Matter movement has utilized Twitter to highlight inequalities and social justice issues. Course readings and discussions highlight political, ethical, and legal issues related to digital media and technologies. Course assignments and readings ask students to evaluate how technologies were used in unanticipated ways to advance political or social objectives. Students discuss, debate, and collaboratively analyze course materials and the political and social issues related to those materials.

**Information & Digital Literacy. Authority and Value of Information; Digital Literacy; Information Structure; and Research as Inquiry**

*In this box, provide a narrative that explains how the proposed course addresses **3** of the components of digital literacy.*

Students conduct online research to collect materials for course projects. Course readings illustrate the interconnected nature of digital technologies. For example, students study and discuss course material which illustrates how modern copyright laws, when applied to the internet and digital technologies, can impact global cybersecurity and the exacerbate the exploitability of the “internet of things.” In course assignments and discussions, students evaluate how digital technologies have been exploited or employed by computer enthusiasts, cybercriminals, cybersecurity professionals and online activists throughout the history of computing. For example, students learn about the formation of what has been termed the “Hacker Ethic” at MIT and early computer programming culture. Students study the history of cyberattacks and learn about the origins of cyberthreats such as self-replicating computer viruses and distributed denial of service attacks. In class assignments and discussions, students learn to analyze primary and secondary documents to make arguments about historical events.

**D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

<https://www.nmt.edu/academicaffairs/assessment/gened.php>



This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).



**Date**

Mar 29 2021

## Upload Assessment

**Completed** - Mar 29 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

[HackersPoliticsCultureSampleAssignment \(1\)](#)

**Filename:** HackersPoliticsCultureSampleAssignment\_1.pdf **Size:** 359.7 kB

## Upload Rubric

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

# Application: 0000001430

Don Scroggins - don.scroggins@clovis.edu  
NM General Education Curriculum

**Summary**

**ID:** 0000001430

**Status:** Under Review

**Last submitted:** Mar 17 2021 08:47 AM (MDT)

# Application Form

Completed - Mar 16 2021

## Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

### Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

### Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

### Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.

- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

### Contact Information

Name	Don Scroggins/Brandon Finney
Title	Division Chair/Instructor
Phone	575-769-4909/575-769-4933
Email	<a href="mailto:scrogginsd@clovis.edu">scrogginsd@clovis.edu</a> / <a href="mailto:finneyb@clovis.edu">finneyb@clovis.edu</a>

### Submitting Institution

Name of HEI	Clovis Community College
Submitting Department	Math

### Chief Academic Officer

Name	Dr. Robin Jones
Email	<a href="mailto:jonesr@clovis.edu">jonesr@clovis.edu</a>

### Registrar

Name	Kari Smith
Email	<a href="mailto:smithk@clovis.edu">smithk@clovis.edu</a>

### Is this application for your entire system (ENMU, NMSU, & UNM)?

Yes

## Institutional Course Information

Prefix	MATH
Number	2420
Title	Applied Linear Algebra
Number of credits	3

## Was this course previously part of the New Mexico General Education curriculum?

Yes

## Co-requisite Course

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)

## New Mexico Common Course Information

Prefix	MATH
Number	2420
Name	Applied Linear Algebra

## A. Content Area and Essential Skills

## To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Mathematics - Communication, Critical Thinking, Quantitative Reasoning

## B. Learning Outcomes

### List all common course student learning outcomes for the course.

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

1. Analyze and solve systems of equations.
  - a. Determine if a system is linear.
  - b. Determine if a system is consistent and whether or not solutions are unique.
  - c. Solve systems using row reduction and analyze the system using pivot positions and free variables.
  - d. Solve systems using matrix factorizations.
  - e. Solve systems using matrix inverses.
  - f. Apply Cramer's rule.
2. Analyze and use the properties of vectors and vector spaces.
  - a. Use vector algebra
  - b. Determine whether or not a set of vectors is linearly independent.
  - c. Determine whether or not a set of vectors and its operations constitute a vector space.
  - d. Determine whether or not a subset of a vector space is a subspace.
  - e. Determine whether or not a set of vectors spans or is a basis for a vector space.
  - f. Compute a basis for and determine the dimension of a vector space.
  - g. Compute the coordinates of a vector with respect to a basis.
  - h. Compute the transition matrix between two bases.
  - i. Determine whether a set and its product constitute an inner product space.
  - j. Compute lengths, angles, distances, and orthogonal projections of vectors.
  - k. Verify orthonormal bases and compute them using the Gram-Schmidt process.
3. Analyze and use the properties of matrices and linear transformations.

- a. Use matrix algebra.
  - b. Compute the inverse, determinant, transpose, and eigenpairs of a matrix.
  - c. Compute and apply decompositions of matrices, such as LU decompositions, singular-value decompositions, diagonalizations, and orthogonal diagonalizations of symmetric matrices.
  - d. Use the Invertible Matrix Theorem.
  - e. Compute a basis for the row, column, and null spaces of a matrix.
  - f. Determine the rank and nullity of a matrix and know how they are related.
  - g. Determine whether or not a transformation is linear.
  - h. Determine whether or not a transformation is injective (one-to-one), surjective (onto), or bijective (both).
  - i. Compute the standard matrix, kernel, and range of a linear transformation.
4. Solve applied problems and use technology.
- a. Set up and solve applied problems such as flow networks, electric circuits, population dynamics, Markov chains, etc.
  - b. Solve least-squares problems.
  - c. Use a computer program to perform the computational outcomes above.

### **Institution-specific Student Learning Outcomes**

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

n/a

## C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

**Communication. Genre and Medium Awareness, Application and Versatility; Strategies for Understanding and Evaluating Messages; and Evaluation and Production of Arguments.**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of communication.*

Students will learn how to use several different mediums to communicate systems of equations (written on paper and digitally on a graphing calculator), vector spaces (graphically on paper and verbally by stating the span of the space), and linear transformations (verbally using the span of the transformation and on paper using matrices). Students will learn to determine which medium is most appropriate based on the purpose of the problem (if the problem is asking for a visual representation, an explanation, or a digital calculation), or the context of an application.

Students will read arguments regarding a set of vectors and learn how to determine their validity based on the mathematical definitions discussed in class. Some examples include the set's linear independence, whether the set is a vector space, and whether the set is an inner product space.

Students will do the same for statements regarding transformations, including whether the transformation is linear, injective, surjective, and/or bijective.

Once students can determine the validity of the statements of others, they will then use the mathematical definitions of the course to craft their own arguments regarding the concepts above (linear independences, vector spaces, linear transformations, etc.) Students will be able to support their arguments with the definitions and theorems pertaining to the concepts.

Communication skills will be assessed using formal exams, quizzes, discussion forums, and essays.

**Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of critical thinking.*

Throughout the entirety of this course, students will learn to delineate procedural (problems asking for calculations) and conceptual (problems asking for an explanation or application) problems. In other words, the problem setting is one in which students will use critical thinking skills to determine which mathematical process is needed to solve a problem. For example, students will realize that, in order to find the basis of a row space, they must transform the information into a matrix, put it in reduced row-echelon form, and list the corresponding non-zero rows. As another example, students will gather data or evidence, in order to calculate the resistance in a complicated electrical circuit, they learn to convert the voltages into a matrix using systems of linear equations, then solve the system.

Students will use the concepts of linear algebra to convert application problems and linear transformations into matrices, then use Gauss-Jordan Elimination to convert matrices into congruent forms, which will allow students to gather information about the system, for example eigenvalues, row space, column space, rank, nullity, and dimension. Students learn how to use this information to address the problem or question.

Students will use the Least Squares Method to determine the validity of a linear approximation of a linear transformation. Furthermore, students will use the Invertible Matrix Theory to determine the validity of a statement on invertibility of a matrix.

Students will use the information gathered above (eigenvalues, row space, etc.) and learn how to draw conclusions with respect to a system or matrix. For example, students will use eigenvalues to determine the rate of compression of data in an application problem. Furthermore, students will use row and column spaces to determine and state all of the possible linear combinations of the rows or columns of a matrix. Assessment of Critical Thinking skills will be done using written exams, quizzes, and discussion forums.



**Quantitative Reasoning. Communication/Representation of Quantitative Information; Analysis of Quantitative Arguments; and Application of Quantitative Models**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of quantitative reasoning.*

Students will learn how to express systems of equations graphically on the Cartesian Coordinate Plane and symbolically using several variables or matrices. Students will learn to express vectors orally by describing the direction and magnitude of the vectors, graphically using rays, and symbolically using rectangular and polar notations. Students will learn to express linear transformations in several symbolic representations, including matrices and linear approximations.

Students will learn how to determine if a point in the Cartesian plane is a solution to a system of equations by evaluating and analyzing the system at that point. Students will critique a statement of invertibility of a matrix several ways, including Gauss-Jordan Elimination, decomposition, and the Invertible Matrix Theorem.

Students will use the concepts in this course to solve application problems, including traffic flow, electrical circuits, graph theory, mathematical biology (disease modeling), and genetics.

Quantitative Reasoning skills will be assessed with written exams, quizzes, and discussions.

---

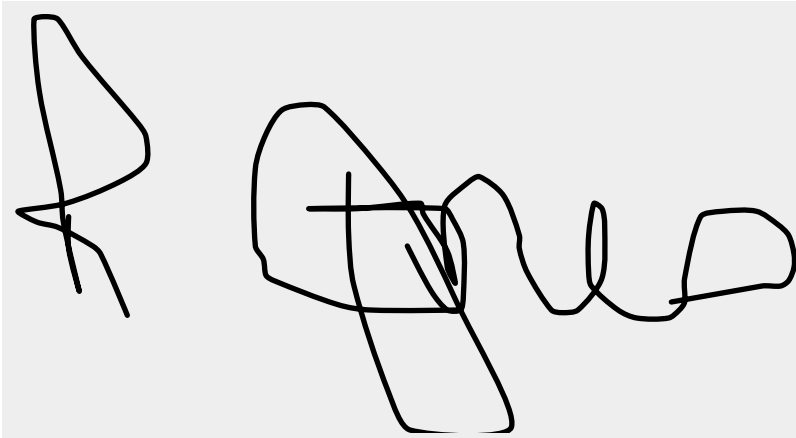
**D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

<http://www.clovis.edu/pathwaychannels/faculty/assessment/CCCGenEdAssessmentHandbook.pdf>

---

This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).



**Date**

Mar 16 2021

## Upload Assessment

**Completed** - Mar 16 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

[Linear Algebra assessment sample](#)

**Filename:** Linear\_Algebra\_assessment\_sample.pdf **Size:** 291.4 kB

## Upload Rubric

**Completed** - Mar 16 2021

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

[Applied Linear Algebra Syllabus](#)

**Filename:** Applied\_Linear\_Algebra\_Syllabus.pdf **Size:** 92.5 kB

# Application: 0000001508

Cheryl Jordan - jordanc@sanjuancollege.edu  
NM General Education Curriculum

**Summary**

**ID:** 0000001508

**Status:** Under Review

**Last submitted:** Mar 29 2021 05:01 PM (MDT)

## Application Form

**Completed** - Mar 29 2021

## Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

### Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

### Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

### Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

### Contact Information

Name	Cheryl Jordan
Title	Professor, Computer Science
Phone	505-566-3374
Email	<a href="mailto:jordanc@sanjuancollege.edu">jordanc@sanjuancollege.edu</a>

### Submitting Institution

Name of HEI	San Juan College
Submitting Department	Computer Science

### Chief Academic Officer

Name	Adrienne Forgette
Email	<a href="mailto:forgettea@sanjuancollege.edu">forgettea@sanjuancollege.edu</a>

### Registrar

Name	Sherri Schaaf
Email	<a href="mailto:schaafs@sanjuancollege.edu">schaafs@sanjuancollege.edu</a>

**Is this application for your entire system (ENMU, NMSU, & UNM)?**

No

**Institutional Course Information**

Prefix	BCIS
Number	1110
Title	Fundamentals of Information Literacy and Systems
Number of credits	3

**Was this course previously part of the New Mexico General Education curriculum?**

No

**Co-requisite Course**

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)

**New Mexico Common Course Information**

Prefix	BCIS
Number	1110
Name	Fundamentals of Information Literacy and Systems

**A. Content Area and Essential Skills**

**To which area should this course be added?**

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Other - Choose 3 essential skills below

**Choose 3 Skills**

**Responses Selected:**

Communication
Critical Thinking
Information & Digital Thinking

**B. Learning Outcomes**

**List all common course student learning outcomes for the course.**

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

1. Describe the social impact of information literacy and systems in relation to commerce, education, and personal activities.
2. Explain how to use the information resources legally, safely, and responsibly in relation to ethical, security, and privacy issues.
3. Evaluate bias, accuracy and relevance of information and its sources.
4. Use productivity tools for communications, data analysis, information management and decision making.
5. Describe and use current information systems and technologies.

## Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

None.

---

### C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

***Communication. Genre and Medium Awareness, Application and Versatility; Strategies for Understanding and Evaluating Messages; and Evaluation and Production of Arguments.***

*In this box, provide a narrative that explains how the proposed course addresses all of the components of communication.*

Genre and Medium Awareness, Application and Versatility – in this course students interact with course materials and communicate their knowledge through in-class discussions as well as in-class problem solving, written responses to study guide questions, group in-class technological discussions, homework presentations to the class, written explanations of problem outcomes and social responses on technological concepts from homework problems, unit exams, and two major projects requiring students to fully research and determine technology requirements and the future of AI (artificial intelligence). One goal of the course is for students to think and to communicate as savvy computer people do and be able to discuss ethical and privacy concerns of computer technology.

Strategies for Understanding and Evaluating Messages; and Evaluation and Production of Arguments – Once students are introduced to core concepts of the Fundamentals of Information Literacy and Systems and proper digital information thinking, they are continually asked to evaluate and describe social/ethical responses to technology changes. For example, all students are placed in teams and are presented with a particular current or future technological challenge. The teams must interpret what will occur within the challenge(s), how people will or should respond to those challenges and be able to communicate all this to the class coherently through the use of materials they have produced as well as their concept knowledge. Real world examples are continually placed before them. For example, how the use of technology tools in business operations and corporate strategy may face multiple ethical issues. How does the use of technology fit with a company's goals and core values? Are there valid reasons for instituting unethical practices in order for a business to succeed? This type of technology analysis and application must also be used to properly complete the Internet Research Projects that are assigned towards the end of the course.



**Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of critical thinking.*

Problem Setting; Evidence Acquisition – Students will analyze and critically interpret content from the various chapters from the theory textbook which includes topics such as Net neutrality, Internet usage and mental health, to futuristic topics of pre-crime policing. Students will compare and contrast the social and ethical issues surrounding new technology and why it should or should not be adapted in a business or personal setting. A variety of computer technology examples will be utilized so students will be able to identify the type of computer technology, use of that technology, and the ethical dilemmas associated with that technology. Students will develop computer skills from the applications textbook so that they may use computers and associated technology for communicating, researching, organizing, storing, accessing, and presenting information as most jobs now require at least some level of interaction and expertise with computer technology.

Evidence Evaluation; and Reasoning/Conclusion – In assessment, all students will take a quiz over each chapter and complete a comprehensive exam for each unit. All questions on the exam will be linked to one or more of the course objectives that address the area competencies. Student teams are presented with a particular current or future technological challenge for group discussion and presentation. Student teams will analyze and interpret what could occur within the challenge(s) and how average people will or should respond. All students will complete additional written discussions and provide feedback to other students' posts on technology topics provided by the instructor. For example, "What are the possible security risks with IoT and what precautions can we take to overcome them?" In the Internet Research Projects students will solve problems and draw conclusions and create a detailed, research paper with citations.

**Quantitative Reasoning. *Communication/Representation of Quantitative Information; Analysis of Quantitative Arguments; and Application of Quantitative Models***

*In this box, provide a narrative that explains how the proposed course addresses all of the components of quantitative reasoning.*

N/A

**Personal & Social Responsibility. *Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global***

*In this box, provide a narrative that explains how the proposed course addresses 2 of the components of personal & social responsibility.*

N/A

## **Information & Digital Literacy. Authority and Value of Information; Digital Literacy; Information Structure; and Research as Inquiry**

*In this box, provide a narrative that explains how the proposed course addresses **3** of the components of digital literacy.*

Authority and Value of Information – Students will use technology to find, evaluate, create, and communicate information for various homework assignments, discussion assignments, and Internet Research Projects. Students will learn to recognize online sources that can be trusted from those sources that cannot to be trusted. Students will use publicly available online resources, as well as other mediums (print and locally owned businesses) to find useful, accurate information for individual and team assignments. Students will conduct individual research for their research projects and will conduct group research for their team assignments and will need to validate their findings.

Digital Literacy; Information Structure, Research as Inquiry – With technology and software applications becoming so mainstream, it is vital for students to be fluent in their use when entering any job the workforce. Students will learn digital literacy by using the Internet to perform online searches for their various assignments. Students will communicate their findings via online discussions and complete online assignments through our learning management system. Students will create APA or MLA papers based on their research projects using application software to form and support their conclusions based on their research. Students will learn from an understanding of a wide range of technological hardware and application software (e.g., word processing, presentations, spreadsheets, databases, and the Internet) to help them navigate the workforce and personal life.

### **D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

[https://search.sanjuancollege.edu/s/redirect?collection=san-juan-search&url=https%3A%2F%2Fwww.sanjuancollege.edu%2Fmedia%2Fsanjuancollegeedu%2Fdocuments%2Flearning%2FGeneral-Education-Assessment-Plan-final-Fall-2019-%28002%29.pdf&auth=PJOrAXX7hFBkMHMhow8vDw&profile=\\_default&rank=1&query=General+Education+Assessment+Plan](https://search.sanjuancollege.edu/s/redirect?collection=san-juan-search&url=https%3A%2F%2Fwww.sanjuancollege.edu%2Fmedia%2Fsanjuancollegeedu%2Fdocuments%2Flearning%2FGeneral-Education-Assessment-Plan-final-Fall-2019-%28002%29.pdf&auth=PJOrAXX7hFBkMHMhow8vDw&profile=_default&rank=1&query=General+Education+Assessment+Plan)

This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).



**Date**

Mar 29 2021

## Upload Assessment

**Completed** - Mar 29 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

### [BCIS 1110 Internet Research Project #1](#)

**Filename:** BCIS\_1110\_Internet\_Research\_Project\_1.pdf **Size:** 203.7 kB

## Upload Rubric

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

## Application: 0000001523

Shiva Rai - shiva.raai@enmu.edu  
NM General Education Curriculum

### Summary

**ID:** 0000001523

**Status:** Under Review

**Last submitted:** Mar 29 2021 04:29 PM (MDT)

## Application Form

**Completed** - Mar 29 2021

# Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout

the course.

### Contact Information

Name	Dr. Shiva Rai
Title	Assistant Professor of Mathematics
Phone	8064074298
Email	<a href="mailto:shiva.raai@enmu.edu">shiva.raai@enmu.edu</a>

### Submitting Institution

Name of HEI	Eastern New Mexico University-Ruidoso Branch Community College
Submitting Department	Department of Math and Science

### Chief Academic Officer

Name	Coda Omness
Email	<a href="mailto:coda.omness@enmu.edu">coda.omness@enmu.edu</a>

### Registrar

Name	Amy Means
Email	<a href="mailto:amy.means@enmu.edu">amy.means@enmu.edu</a>

### Is this application for your entire system (ENMU, NMSU, & UNM)?

No

### Institutional Course Information

Prefix	MATH
Number	1520
Title	Calculus II
Number of credits	4

**Was this course previously part of the New Mexico General Education curriculum?**

No

**Co-requisite Course**

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)

**New Mexico Common Course Information**

Prefix	MATH
Number	1520
Name	Calculus II

**A. Content Area and Essential Skills**

**To which area should this course be added?**

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Mathematics - Communication, Critical Thinking, Quantitative Reasoning

## B. Learning Outcomes

---



**List all common course student learning outcomes for the course.**

Common Course Student Learning Outcomes (find Common Course SLOs at:

<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

**1. Integration:**

a. Determine the indefinite integrals and compute definite integrals of algebraic and transcendental functions using various techniques of integration including integration by parts, trigonometric integrals, trigonometric substitution, partial fraction decomposition and improper integrals.

b. Solve problems involving separable differential equations.

**2. Applications of integration**

a. Compute volumes and areas of surfaces of solids of revolution.

b. Compute length of curves, moments & center of mass.

c. Application problems; Work, Hydrostatic Pressure.

d. Computer Numerical Analysis: Midpoint Rule, Trapezoid Rule, Simpson Rule.

e. Parametric equation of first and second derivatives, polar coordinate system.

**2. Sequences and Series:**

a. Compute the limit of sequences.

b. Compute the sum of a basic series using its  $n$ th partial sum.

c. Compute the sum of geometric series.

d. Determine if a series converges using the appropriate test, such as the  $n$ th term, integral,  $p$ -series, direct comparison, limit comparison, ratio, root, and alternating series tests.

e. Determine if a series is absolutely convergent, conditionally convergent, or divergent.

**3. Properties of power series:**

a. with respect to a variable in a function, compute the radius and interval of convergence of a power series.

b. Compute the Taylor polynomials of functions.

c. Compute basic Taylor series using the definition.

d. Compute Taylor series using function arithmetic, composition, differentiation, and integration.

e. Compute limits with Taylor series:

f. Approximate definite integrals with Taylor series and estimate the error of approximation.

g. Determine the sum of a convergent series using Taylor series.

## Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

N/A

### C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

**Communication. Genre and Medium Awareness, Application and Versatility; Strategies for Understanding and Evaluating Messages; and Evaluation and Production of Arguments.**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of communication.*

Students will learn how to communicate the area between two curves in the following mediums: graphically, as a single or series of definite integrals, and as a mathematical expression. Students will be assessed not only on their ability to properly sketch the graphical representation or evaluate the definite integrals, but also their ability to determine the proper method of communication based on the wording of the question or physical application. Students will also learn how to communicate the stability of solutions to a first-order differential equation both graphically in the form of directional fields and verbally.

Students will learn to analyze arguments regarding the divergence or convergence of a series, how to determine their validity using a variety of tests, including the divergence, integral, comparison, ratio, and

root tests, and will be assessed on their ability to understand these arguments using the proper definitions. Students will learn how to determine the proper method of determining the volume of a three-dimensional conic section and communicate their method of choice using the proper definitions and theorems. Students will also be assessed on their ability to communicate their choice of strategy for solving first-order differential equations and the effectiveness of their arguments and how they apply to the definitions learnt in the course.

To successfully communicate mathematical findings in written form, students must be able to continue to identify and use correct mathematical terminologies and mathematical theorems that apply to the situation in the course. Students will read each problem carefully to understand how to evaluate and solve a given problem, and must show their work through a logical progression of steps to formulate an appropriate solution. Students will also be able to rationalize and justify their logic to the instructor in written and oral form.

Communication skills will be assessed using in-class discussions, pop-up quizzes, homework assignments and formal written exams.

**Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of critical thinking.*

Students will develop their critical thinking skills through in-class discussions, homework assignments, pop-up quizzes, midterm exams, and in-class problems and group work. Students are guided through in-class discussions written tests and homework assignments to develop critical thinking skills in mathematics. Instructor model critical thinking skills for their students through problem delineation, evidence acquisition and evaluation and drawing appropriate conclusions. Instructor assign problems to students guiding them through then allow them to develop their own critical thinking skills.

Students will be able to dissect an application problem and delineate the true intention of the problem. For example, students will be able to derive the temperature of an object from Newton's Law of Cooling by realizing they need to solve a first-order differential equation. Furthermore, students will be able to determine the force of an object by delineating the problem to a volume problem, which requires a definite integral.

Students will gather information of a function's graph to find the volume of a conic section created with that function, including boundary points and antiderivatives of the function. Furthermore, when solving moments and centers of mass problems, students will be assessed on their ability to gather information like boundary points, antiderivatives, and the density of the associated substance. Students will acquire the ability to evaluate trigonometric identities to determine the most effective identity to use to evaluate integrals that would be impossible otherwise. Also, students will determine the convergence or divergence of a series by evaluating the convergence or divergence of a related series in the comparison test.

Critical thinking skills are assessed informally through in-class discussions, in-class problems and group work. Formally, critical thinking skills will be assessed through written homework assignments, quizzes, midterm exams and the final exam.

**Quantitative Reasoning. Communication/Representation of Quantitative Information; Analysis of Quantitative Arguments; and Application of Quantitative Models**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of quantitative reasoning.*

Students will learn to graph polar coordinates  $(r, \theta)$  on the Cartesian Coordinate Plane. Students will be assessed on their ability to expression parametric equations as to  $y=f(x)$  form. Furthermore, students will be assessed on their ability to communicate an improper integral as the limit of a proper integral to aid in evaluation. Students will be able to analyze the stability of a solution to a first-order differential equation given a completed directional field.

Students will be assessed on their ability to apply the concepts of definite, indefinite, trigonometric, and improper integrals; partial fractions; differential equations; sequences and series; power, Taylor, and Maclaurin series; and parametric equations to applications in physics, biology, and economics. For example, students will apply the definite integral of a polar function to find the arc length of a section of a circle. Furthermore, students will apply an improper integral to determine the area under a horizontally asymptotic curve.

Assessment of quantitative reasoning skills will accomplished using formal written exams, in-class discussions, group work, and quizzes.

---

**D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

N/A

---

**This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).**

.

## Date

Mar 29 2021

## Upload Assessment

**Completed** - Mar 29 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

### Calculus 2\_Final\_Exam

**Filename:** Calculus\_2\_Final\_Exam.pdf **Size:** 90.3 kB

## Upload Rubric

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

## Application: 0000001490

Michael Bilopavlovich - michaelb@mesalands.edu  
NM General Education Curriculum

### Summary

**ID:** 0000001490

**Status:** Under Review

**Last submitted:** Mar 25 2021 08:49 PM (MDT)

## Application Form

**Completed** - Mar 25 2021

## Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students do to develop the essential skills throughout the course.

## Contact Information

Name	Michael Bilopavlovich
Title	Faculty
Phone	575-461-4413 ext. 150
Email	<a href="mailto:michaelb@mesalands.edu">michaelb@mesalands.edu</a>

## Submitting Institution

Name of HEI	Mesalands Community College
Submitting Department	Academic Affairs

## Chief Academic Officer

Name	Natalie Gillard
Email	<a href="mailto:natalieg@mesalands.edu">natalieg@mesalands.edu</a>

## Registrar

Name	Forrest Kaatz
Email	<a href="mailto:forrestk@mesalands.edu">forrestk@mesalands.edu</a>

## Is this application for your entire system (ENMU, NMSU, & UNM)?

No

## Institutional Course Information



Prefix	Math
Number	261
Title	Mathematics for Elementary Teachers
Number of credits	3

**Was this course previously part of the New Mexico General Education curriculum?**

Yes

**Co-requisite Course**

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)

**New Mexico Common Course Information**

Prefix	Math
Number	1110
Name	Math for Teachers I

**A. Content Area and Essential Skills**

**To which area should this course be added?**

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Mathematics - Communication, Critical Thinking, Quantitative Reasoning

## B. Learning Outcomes

---

**List all common course student learning outcomes for the course.**

Common Course Student Learning Outcomes (find Common Course SLOs at:

<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

### 1. Unpack arithmetic.

Component 1: Explain procedures for doing addition, subtraction, and multiplication with whole numbers, integers, and fractions.

Component 2: Do addition, subtraction, and multiplication of multi-digit numbers in several different ways.

Component 3: Analyze student work, assess validity of arguments, and identify mathematical misconceptions in mistakes.

Component 4: Use the decomposition of whole numbers to find factors, multiples, and prime numbers.

Component 5: Use the relationships between operations, to solve simple algebraic equations.

### 2. Apply mathematical concepts.

Component 1: Recognize the difference between multiplicative and additive situations.

Component 2: Solve problems involving fractions.

### 3. Represent mathematical concepts.

Component 1: Use tactile representations, including base blocks and integer chips to represent numbers and operations.

Component 2: Use visual representations, including discrete pictures, number lines, and rectangles, to represent operations.

Component 3: Use tactile and visual representations to explain how estimation and rounding work.

Component 4: Use concrete applications to represent operations.

### 4. Communicate mathematical concepts.

Component 1: Describe the equivalence between different representations of numbers and operations.

Component 2: Create justifications for properties and procedures in arithmetic.

Component 3: Use correct terminology and notation.

## Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

N/A

### C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

**Communication. Genre and Medium Awareness, Application and Versatility; Strategies for Understanding and Evaluating Messages; and Evaluation and Production of Arguments.**

*In this box, provide a narrative that explains how the proposed course addresses **all** of the components of communication.*

Although the list of topics for Math 1110 is based on arithmetic, the purpose of the course is to provide a critical examination and exploration of mathematical concepts, ideas, and reasoning. Most students of arithmetic only learn the standard algorithms which become rules for students to memorize and follow. In this course, students have opportunities to explore why the standard algorithms work the way they do, what other algorithms for these procedures exist, and that algorithms (and mathematics itself) can be created. In this course preservice elementary school teachers engage in mathematics through various forms of communication about mathematical ideas, think critically about arithmetic algorithms and procedures, and explore multiple worldviews of numeracy. In Math 1110, students describe mathematical ideas, concepts, and methods. Students explore novel

addition, subtraction, multiplication, and division problems which may include a written story situation, a visual image, or a mathematical equation. Students communicate their understanding through written and oral narratives and explanations, mathematics-specific symbols (e.g., showing steps to calculations and solving equations symbolically), and visual diagrams (e.g. graphs, tables, and pictures). Students are encouraged to develop their understandings through these multiple ways of representing and communicating mathematical ideas. Providing multiple representations of certain mathematical topics is a prevalent theme throughout the course. For example, students draw pictures (example, diagrams of area models of multiplication) and engage in oral and written communications to explain how the area models connect to the symbolic manipulation when multiplying multidigit numbers. Students also make connections between multiple ways of representing fractions with numbers and symbols, pictures, and words. Students create story problems that involve grade-level calculations, but must include real, interesting, and contextualized situations. Students create and orally explain games that help other students to practice operations and procedures. Students take an analysis of patterns presented to them and create their own rules based on those patterns. Students may be asked to present their analysis of these patterns through oral presentations, posters, and/or writing.

***Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.***

*In this box, provide a narrative that explains how the proposed course addresses all of the components of critical thinking.*

A common approach to learning the objectives of Math 1110 is to re-examine the algorithms and methods in mathematics introduced to students in elementary school and to compare these approaches with alternative approaches, in order to develop a deeper understanding about the logic behind these common algorithms and approaches, and to be able to explain why these algorithms and methods work. Using this approach, students focus on the critical thinking process as it pertains to exploring numeration systems. This includes exploring and analyzing how various numeration systems work and how structures of numeration systems lend themselves to developing and understanding algorithms. The driving motivation behind the exploration of each numeration system is "How does this numeration system work?" As alternative examples, students explore the Babylonian, Egyptian, Chinese, Roman, and Mayan numeration systems in order to compare and contrast the varying structures of numeration systems and why they may have made sense for these societies. Students learn how to count and perform arithmetic in different bases in order to better understand the logic behind common algorithms in our base 10 system.

After exploring each of the numeration systems, there are several points of discussion that are used to compare and contrast the various numeration systems. Some systems are additive numeration systems while others are place value numeration systems. Many systems are based on the value ten, meaning that ten and powers of ten tend to get their own symbols or place value. However, some cultures use systems that are based on five or even twenty or sixty. Students have discussions on the various numeration systems and this leads to a discussion on the properties and characteristics of Hindu-Arabic base 10 numeration system that is standard for most modern societies. After seeing how various numeration systems work, what it means for a numeration system to be a place value system versus an additive system and what it means to be a base-10 system, students then have some tools to describe the rules and properties of the Hindu-Arabic Base 10 system. Students are then expected to be able to describe and demonstrate understanding the properties of this system through providing explanation of why addition, subtraction, multiplication and division algorithms work the way they do.

**Quantitative Reasoning. Communication/Representation of Quantitative Information; Analysis of Quantitative Arguments; and Application of Quantitative Models**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of quantitative reasoning.*


Reasoning mathematically involves quantitative reasoning. Mathematics is a study of patterns and systems and figuring out ways to solve problems. An understanding of the mathematical structures underlying the procedures and concepts leads to enhanced quantitative reasoning. Especially for pre-service teachers, it is important to consider alternative ways to do mathematics. Often, there may be several ways to figure out all the components of a complex problem so students can better understand what needs to be done. It is important for pre-service teachers to realize that they need to know why they should learn a topic and the reasoning behind how to solve problems in a variety of ways and methods. Another key idea of the course is that students need to learn how to relate their conceptual and procedural knowledge, and grasp both the interrelations among concepts and operations. In this course, students engage in extended exploration of the concepts of arithmetic which leads to better quantitative arguments of arithmetic problems. Exploring various models for arithmetic provides an opportunity for the students deepen their understanding of mathematical concepts and to think and reason independently.

**D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

<https://www.mesalands.edu/wp-content/uploads/2020/01/SLAC-Annual-Report-2018-19-Final.pdf>

This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).



---

#### Date

Mar 25 2021

## Upload Assessment

**Completed** - Mar 25 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

### [Math 1110 Sample Assessment March 2021](#)

**Filename:** Math\_1110\_Sample\_Assessment\_March\_2021.pdf **Size:** 601.2 kB

## Upload Rubric

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

# Application: 0000001524

Michael Bilopavlovich - michaelb@mesalands.edu  
NM General Education Curriculum

#### Summary

**ID:** 0000001524

**Status:** Under Review

**Last submitted:** Mar 29 2021 03:54 PM (MDT)

## Application Form

# Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.



- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

### Contact Information

Name	Michael Bilopavlovich
Title	Faculty
Phone	5754614413 ext. 150
Email	<a href="mailto:michaelb@mesalands.edu">michaelb@mesalands.edu</a>

### Submitting Institution

Name of HEI	Mesalands Community College
Submitting Department	Academic Affairs

### Chief Academic Officer

Name	Natalie Gillard
Email	<a href="mailto:natalieg@mesalands.edu">natalieg@mesalands.edu</a>

### Registrar

Name	Forrest Kaatz
Email	<a href="mailto:forrestk@mesalands.edu">forrestk@mesalands.edu</a>

### Is this application for your entire system (ENMU, NMSU, & UNM)?

No

## Institutional Course Information

Prefix	HIST
Number	122
Title	Survey of Western Civilization II
Number of credits	3

## Was this course previously part of the New Mexico General Education curriculum?

No

## Co-requisite Course

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)

## New Mexico Common Course Information

Prefix	HIST
Number	1160
Name	World History II

## A. Content Area and Essential Skills

**To which area should this course be added?**

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Humanities - Information & Digital Literacy, Critical Thinking, Personal & Social Responsibility

---

**B. Learning Outcomes**

---

## List all common course student learning outcomes for the course.

Common Course Student Learning Outcomes (find Common Course SLOs at:

<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

1. Students will be able to EXPLAIN in their work how humans in the past shaped their own unique historical moments and were shaped by those moments, and how those cultures changed over the course of the centuries for the history of the western world from the early modern era to the present.  
Bloom Taxonomy's Cognitive Process: REMEMBER AND UNDERSTAND
2. Students will DISTINGUISH between primary and secondary sources, IDENTIFY and EVALUATE evidence and EMPATHIZE with people in their historical context.  
Bloom Taxonomy's Cognitive Process: ANALYZE, REMEMBER, EVALUATE, CREATE
3. Students will SUMMARIZE and APPRAISE different historical interpretations and evidence in order to CONSTRUCT past events.  
Bloom Taxonomy's Cognitive Process: UNDERSTAND, EVALUATE, APPLY
4. Students will IDENTIFY historical arguments in a variety of sources and EXPLAIN how they were constructed, EVALUATING credibility, perspective, and relevance.  
Bloom Taxonomy's Cognitive Process: REMEMBER, UNDERSTAND, EVALUATE
5. Students will CREATE well-supported historical arguments and narratives that demonstrate an awareness of audience.  
Bloom Taxonomy's Cognitive Process: CREATE, APPLY
6. Students will APPLY historical knowledge and historical thinking "in order to infer what drives and motivates human behavior in both past and present."  
Bloom Taxonomy's Cognitive Process: APPLY, ANALYZE

---

## Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

N/A

## C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

### **Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.**

*In this box, provide a narrative that explains how the proposed course addresses **all** of the components of critical thinking.*

Students will be given historical problems to analyze either through discussions, journals, or a paper. They will have to use creative skills and critical thinking as they work through these problems. In the discussions, students will be asked to describe the problem as it exists in History as well as to compare this problem to another problem in history or to current problems in our society. Students will at times wrestle with cognitive dissonance as they learn about more history, which is sometimes different from stories they grew up with. They must use critical thinking to develop new understanding of the material and to articulate that understanding in new ways.

Students will, during the course of discussion, evaluate each others' arguments and bring in research of their own to move the conversation forward in an academic way. In this collaborative approach, students will be exposed to new ideas and must find a way to reconcile them with scholarly conversation. Students will reason through their own arguments and the arguments of their peers, coming to new conclusions. In their own research, students will need to evaluate sources based upon historical accuracy and trustworthiness so that they can make sound arguments in discussions and the paper. In the journaling activities, students will use their critical thinking to understand a specific event or series of events they found interesting and articulate how they came to a new understanding of the material.

**Personal & Social Responsibility. Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global**

*In this box, provide a narrative that explains how the proposed course addresses 2 of the components of personal & social responsibility.*

Due to the nature of historical inquiry, students necessarily will interact with societal and cultural situations. Through their study of this historical time period, they will need to evaluate social and cultural mores both as they existed in the past and how they are viewed in today's world. Students are expected to be respectful and thoughtful as they explore these topics and to be sensitive to others' worldviews as they discuss social issues. Sometimes in culture, there are those who live and think very differently to ourselves, and students will discuss these topics in a professional and academic manner. Students will study various techniques those in the past had for solving environmental problems such as farming using irrigation, road building, urbanization or pollution; discovering that sometimes past methods were brought forward in history to still be used in the modern day.

In the study of subaltern history, (the history of minority groups such as Native Americans, women, African Americans, and the LGBTQ community) students will be able to evaluate the treatment of those cultures and how that treatment has changed over time, touching on societal ethics' failures and triumphs. Students will evaluate reasons for the marginalization of other cultures through Anglo ethnocentricity, Paternalism, and Patriarchy; and will work collaboratively to reason through cultural differences by the use of academic discussions. At times, they will be asked to bring personal anecdotes to the discussion, enabling a more intimate discussion through specific examples. Through journaling, students will discuss their personal experiences with history, discovering and reasoning through their own biases. Students will understand that by studying history, we can better understand the problems of the present.

**Information & Digital Literacy. Authority and Value of Information; Digital Literacy; Information Structure; and Research as Inquiry**

*In this box, provide a narrative that explains how the proposed course addresses **3** of the components of digital literacy.*

In this day and age, most students are familiar with the internet and computers. Students will turn in all their work online, and so will need to be able to navigate the class website in order to successfully complete their assignments. Because this is an online course, the students will need to be comfortable with digital literacy and able to find information on the internet. Students will be able to do their research online as well as using primary documents based on the Word Wide Web that will be provided by their instructor. The class uses Youtube videos to illustrate some concepts, as well as using primary sources published by universities, so the internet is instrumental in providing much ancillary information to the class.

Students will become more and more familiar with use of the school website as they progress through the class, learning different ways to turn in their work. They will understand that not all websites are trustworthy for historical information as some may have been written in an “armchair” fashion by non-experts, or they may belong to organizations who have a bias toward funneling their readers toward the organization as in the case of tourism-based websites who are attempting to bring business toward their community. Students will learn, following their instructor’s examples, how to evaluate information they find on the internet so that they can integrate it into their work. Students will be expected to properly cite sources they bring from the internet for evaluation by the instructor to ensure historical accuracy.

---



**D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

<https://www.mesalands.edu/wp-content/uploads/2020/01/SLAC-Annual-Report-2018-19-Final.pdf>

---

This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).



**Date**

Mar 29 2021

## Upload Assessment

**Completed** - Mar 29 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

### [HIST 1160 Sample Assessment Assignment](#)

**Filename:** HIST\_1160\_Sample\_Assessment\_Assignment\_.pdf **Size:** 92.9 kB

## Upload Rubric

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

## Application: 0000001448

Jack McCaw - jack.mccaw@enmu.edu  
NM General Education Curriculum

### Summary

**ID:** 0000001448

**Status:** Under Review

**Last submitted:** Mar 20 2021 10:47 AM (MDT)

## Application Form

**Completed** - Mar 20 2021



# Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout

the course.

### Contact Information

Name	Jack McCaw
Title	Department Chair
Phone	5753151152
Email	<a href="mailto:jack.mccaw@enmu.edu">jack.mccaw@enmu.edu</a>

### Submitting Institution

Name of HEI	Eastern New Mexico University - Ruidoso
Submitting Department	Math and Science

### Chief Academic Officer

Name	Coda Omness
Email	<a href="mailto:Coda.Omness@enmu.edu">Coda.Omness@enmu.edu</a>

### Registrar

Name	Amy Means
Email	Amy.Means.enmu.edu

### Is this application for your entire system (ENMU, NMSU, & UNM)?

No

### Institutional Course Information

Prefix	CHEM
Number	1225
Title	General Chemistry II for STEM Majors
Number of credits	4

**Was this course previously part of the New Mexico General Education curriculum?**

Yes

**Co-requisite Course**

Prefix	CHEM
Number	1225 L
Title (if applicable)	General Chemistry II For STEM Majors Lab

**New Mexico Common Course Information**

Prefix	CHEM
Number	1225
Name	General Chemistry II for STEM Majors

**A. Content Area and Essential Skills**

**To which area should this course be added?**

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Science - Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning

## B. Learning Outcomes

---

**List all common course student learning outcomes for the course.**

Common Course Student Learning Outcomes (find Common Course SLOs at:

<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

1. Explain the intermolecular attractive forces that determine physical properties and phase transitions, and apply this knowledge to qualitatively evaluate these forces from structure and to predict the physical properties that result.
2. Calculate solution concentrations in various units, explain the effects of temperature, pressure and structure on solubility, and describe the colligative properties of solutions, and determine solution concentrations using colligative property values and vice versa.
3. Explain rates of reaction, rate laws, and half-life, determine the rate, rate law and rate constant of a reaction and calculate concentration as a function of time and vice versa, as well as explain the collision model of reaction dynamics and derive a rate law from a reaction mechanism, evaluating the consistency of a mechanism of a given rate law.
4. Describe the dynamic nature of chemical equilibrium and its relation to reaction rates, and apply Le Chatelier's Principle to predict the effect of concentration, pressure and temperature changes on equilibrium mixtures as well as describe the equilibrium constant and use it to determine whether equilibrium has been established, and calculate equilibrium constants from equilibrium concentrations and vice versa.
5. Describe the different models of acids and base behavior and the molecular basis for acid strength, as well as apply equilibrium principles to aqueous solutions, including acid base and solubility reactions, and calculate pH and species concentrations in buffered and unbuffered solutions.
6. Explain titration curves and speciation diagrams, as well as calculate concentrations of reactants from the former and determine dominant species as a function of pH from the latter.
7. Explain and calculate the thermodynamic functions, enthalpy, entropy and Gibbs free energy, for a chemical system, and relate these functions to equilibrium constants and reaction spontaneity; balance redox equations, express them as two half reactions and evaluate the potential, free energy and equilibrium K for the reaction, as well as predict the spontaneous direction.
8. Construct a model of a galvanic or electrolytic cell; or describe organic reactions.
9. Describe bonding theories, such as valence and molecular orbital theory.

## Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

None

---

### C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

**Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of critical thinking.*

Students develop and use critical thinking throughout the lecture and lab portions of this course. While learning about molecular properties, solutions, reaction rates, chemical equilibrium, and electrochemistry, students apply the scientific method to observe phenomenon, propose hypotheses, gather data through experimentation, and then form conclusions and present results in lab reports. Students work in groups of 2 or 3 at lab tables of 4 or 5. When studying chemical equilibrium, for example, students use a colorimeter to find equilibrium points for various chemical reactions. In the pre-lab portion of the experiment, students prepare solutions and propose their hypotheses (problem setting). Students perform chemical reactions of known solutions and record their observations and data in their lab reports (evidence acquisition). Students then graph their results and find the equilibrium constant for the reactions. Student groups are required to compare data and identify any observations that are unusual and discuss why there are differences observed (evidence evaluation). Students then apply their procedure to unknown solutions. Students graph their results and use the graphs to make conclusions about the unknowns (reasoning/conclusion). Assessment is accomplished through class comparisons and the writing of their lab reports which include observations, data, graphs, analysis and conclusions.

**Quantitative Reasoning. Communication/Representation of Quantitative Information; Analysis of Quantitative Arguments; and Application of Quantitative Models**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of quantitative reasoning.*

Students utilize and develop quantitative reasoning skills throughout the study of chemistry in both lab and lecture. Students learn to perform multistep calculations using stoichiometry to quantify chemical reactions and energy transfer. Throughout the course, students write equations and graph data for many types of measurements, including chemical equilibrium, kinetics, thermodynamics, and electrochemistry. While studying kinetics, students conduct experiments to determine the rate law appropriate for given reactions. Students gather data from their reactions and graph the data in order to determine rate laws (representation of quantitative information). Students use the information gathered to determine the rate constant and write a rate law equation based on their graphical data (analysis of quantitative information). Finally, students use the knowledge gained to write rate law expressions for additional reactions and make predictions about the rate-determining step in those reactions, as well (application of quantitative models). Students are assessed by the completion of lab reports including the data gathered, observations, graphic analysis, and conclusions.



**Personal & Social Responsibility. Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global**

*In this box, provide a narrative that explains how the proposed course addresses 2 of the components of personal & social responsibility.*

Students engage in sustainability discussions in Chemistry II in the classroom setting. Students have group discussions and classroom discussions, exploring the positives and negatives of a variety of points of view related to energy production and alternative energy solutions, pollution and the creation of chemical wastes in manufacturing, and potential hazards associated with chemical processes. Students conduct research on assigned topics in the field of energy production. Students must write a cause-and-effect essay based on their research. Students present a short PowerPoint presentation to their classmates and entertain short question and answer sessions on their topics (sustainability and the natural and human worlds).

Students work collaboratively in both lecture and laboratory assignments throughout the course. Student groups are sometimes assigned and sometimes are student-driven and organized. Student groups decide on individual responsibilities and hold each other accountable in performing group tasks. For example, students learn and practice using the scientific process in all laboratory activities. Students must divide labor, hold each other accountable, and discuss differences in outcomes in order to come to the best conclusions. Student groups often are required to share their findings with the class, where they must explain their results (collaboration, teamwork and accountability).

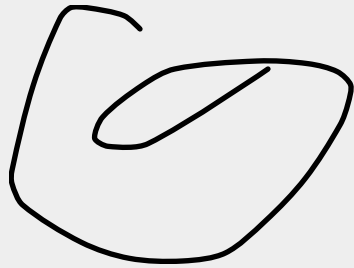
---

**D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

In Progress

This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).



**Date**

Mar 19 2021

## Upload Assessment

**Completed** - Mar 20 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

### [Chemical Eq\\_Lab\\_10](#)

**Filename:** Chemical\_Eq\_Lab\_10.pdf **Size:** 290.0 kB

## Upload Rubric

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

# Application: 0000001486

Robert Moore - Robert.Moore@rm01.enmuros.cc.nm.us  
NM General Education Curriculum

### Summary

**ID:** 0000001486

**Status:** Under Review

**Last submitted:** Mar 25 2021 12:07 PM (MDT)

## Application Form

# Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.

- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

### Contact Information

Name	Robert Moore
Title	Assistant VP
Phone	5756247001
Email	<a href="mailto:robert.moore@roswell.enmu.edu">robert.moore@roswell.enmu.edu</a>

### Submitting Institution

Name of HEI	ENMU-Roswell
Submitting Department	Social and Behavioral Science

### Chief Academic Officer

Name	Annemarie Oldfield
Email	<a href="mailto:annemarie.oldfield@roswell.enmu.edu">annemarie.oldfield@roswell.enmu.edu</a>

### Registrar

Name	Linda Neel
Email	<a href="mailto:linda.neel@roswell.enmu.edu">linda.neel@roswell.enmu.edu</a>

### Is this application for your entire system (ENMU, NMSU, & UNM)?

No

## Institutional Course Information

Prefix	POLS
Number	2160
Title	State and Local Government
Number of credits	3

## Was this course previously part of the New Mexico General Education curriculum?

Yes

## Co-requisite Course

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)

## New Mexico Common Course Information

Prefix	POLS
Number	2160
Name	State and Local Government

## A. Content Area and Essential Skills

## To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Social & Behavioral Sciences - Communication, Critical Thinking, Personal & Social Responsibility

## B. Learning Outcomes

### List all common course student learning outcomes for the course.

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

Not available via CCNS catalog.

### Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

1. Students will be able to demonstrate knowledge of the US and New Mexico Constitutions.
2. To discuss the student's relationship to state government.
3. To demonstrate knowledge of the structure and interrelationship of county and municipal governments in the United States and New Mexico.
4. To explain the importance of citizen participation in governmental institutions in the state.

## C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

**Communication. Genre and Medium Awareness, Application and Versatility; Strategies for Understanding and Evaluating Messages; and Evaluation and Production of Arguments.**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of communication.*

Genre and Medium Awareness, Application and Versatility:

State and local government is a complicated and difficult subject. Generally, the students will understand how the state government process and its relationships with local government (and the United States Constitution). The students will also demonstrate how information navigates through the local and state government system. Students will learn to communicate personal and political positions, ideas and opinions, in an open forum and small groups to challenge the political process and its relationship with the state constitution and United States Constitution. Peer interaction will help the students to develop communication skills by researching difficult political topics, understand each other's differences and backgrounds, and offer some insight into how their peers see the world from different viewpoints. These viewpoints will help them to develop vital skills to craft arguments, practice communication skills, and carry a civil discourse on contemporary political issues within the state and locale.

Several team debates will be conducted in class on several different topics and its application to the state and local government process and the United States Constitution. The instructor will provide guidelines and rules while debating, which allows the student to explore their professional and personal opinions within the context of the state and local government, to including their communities. The students will work in small groups to understand what acceptable credible sources are and how to apply them in the larger context (debates, civic discourse, essays and current events), to back up their claims. The state and local government system is very complicated and offers many resources in textbooks,

government publications and the Eastern New Mexico University-Roswell and Eastern New Mexico University Golden Libraries.

#### Strategies for Understanding and Evaluation Messages:

Students practice strategies for understanding and evaluation messages by reading the textbook and supplemental materials, critically viewing documentaries, interact discussion and its application to the course content, including current events and state and Supreme Court of the United States rulings. Students practice critical thinking skills by applying credible sources, research, personal and political views, and evidence-based arguments about current and past government issues.

#### Evaluation and Production of Arguments:

Evaluation and production arguments are demonstrated by applying their understanding of state and local government concepts in group discussion, small group interaction, debate, and persona land political views. They are evaluated by their participation, personal and political input, understanding of government branches and processes in relation to the local and state laws, the state constitution and the United States Constitution.

### ***Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.***

*In this box, provide a narrative that explains how the proposed course addresses **all** of the components of critical thinking.*

Critical thinking skills component will challenge the students to compare and contrast political, personal, economic and social influence that are impacting on contemporary state and local government discourse. This will allow the students to become familiar with the government processes, government branches, and its application to the state constitution and the United States Constitution. Additionally, students will explore and develop their personal and political perspectives and deliver in a formal platform (presentations and debates) with credible sources to conclude reasonable outcomes.

#### Problem Setting:

Students will practice critical thinking skills by engaging in class discussions, lecture, small group works, historical perspectives, essays, local presenters, documentaries and other projects. Students will determine a contemporary political issue and work in small groups to share information and opinions,



and its application to the government discourse; they offer small group presentations and present findings and while utilizing credible sources to back up their conclusions due to the sensitive nature of the political issues and government discourse.

#### Evidence Acquisition:

Students access evidence through their assigned course textbooks, government publications, (e.g., EBSCO, Academic Search Complete, ProQuest, JSTOR, etc.) the Eastern New Mexico University-Roswell and Eastern New Mexico University Golden Libraries, and supplemental faculty-provided material. Students will share their research, views, and conclusions through in-class discussion and class assignments. The students must demonstrate how their research applies within the content of state and local government, the state constitution and the United States Constitution.

#### Evidence Evaluation:

Discussions and small groups compel students to evaluate their work and challenge each other in class discussions, debate and writing assignments. Due to the sensitive nature of the political issues and government discourse, the students must demonstrate how their work applies within the government discourse, to including credible research sources.

#### Reasoning/Conclusion:

The students will explore and conclude many different perspectives based on discussions, presentations, debate and in-class assignments. They will understand that interpretations will differ based on personal and political views and backgrounds, while remaining within the state government discourse. Students will offer solutions and guided toward seeking credible research understand the government process and its many applications.

**Personal & Social Responsibility. *Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global***

*In this box, provide a narrative that explains how the proposed course addresses **2** of the components of personal & social responsibility.*

**Ethical Reasoning:**

Ethical guidelines are provided within the state and local government processes. Ethics are fostered by exploring different perspectives, interpretations, political and personal views, community and national social challenges, power and authority issues, financial impact, geographical location and how individuals define themselves. It is equally important to read or view on how ethics are applied, given the current economic climate.

**Civic Discourse:**

The the state and local government complicities can be approached through textbook readings and in-class discussions with classmates and the instructor. Our country is facing strong social issues are compounded by the national health crisis, economic crisis and the government's response. With interaction in small group work, class discussion, and resources, students will understand different cultural differences and political perspectives, and their impact. Along with local issues, students are required to seek credible resources and research data, and offer solutions for the most serious contemporary issues in our society within the state and local government discourse, the state constitution and the United States Constitution.

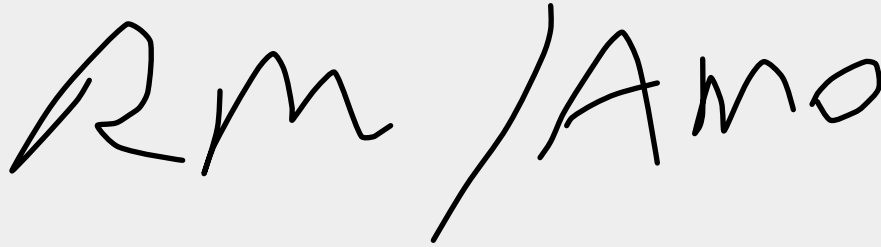
---

**D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

[https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan\\_ENMURoswell.pdf](https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan_ENMURoswell.pdf)

This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).



**Date**

Mar 25 2021

## Upload Assessment

**Completed** - Mar 25 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

### [POLS 2160 Assignment](#)

**Filename:** POLS\_2160\_Assignment.pdf **Size:** 181.8 kB

## Upload Rubric

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

## Application: 0000001463

Robert Moore - Robert.Moore@rm01.enmuros.cc.nm.us  
NM General Education Curriculum

### Summary

**ID:** 0000001463

**Status:** Under Review

**Last submitted:** Mar 24 2021 01:21 PM (MDT)

## Application Form

# Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.

- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

### Contact Information

Name	Robert Moore
Title	Assistant VP
Phone	5756247001
Email	<a href="mailto:robert.moore@roswell.enmu.edu">robert.moore@roswell.enmu.edu</a>

### Submitting Institution

Name of HEI	ENMU-Roswell
Submitting Department	Social and Behavioral Science

### Chief Academic Officer

Name	Annemarie Oldfield
Email	<a href="mailto:annemarie.oldfield@roswell.enmu.edu">annemarie.oldfield@roswell.enmu.edu</a>

### Registrar

Name	Linda Neel
Email	<a href="mailto:linda.neel@roswell.enmu.edu">linda.neel@roswell.enmu.edu</a>

### Is this application for your entire system (ENMU, NMSU, & UNM)?

No

## Institutional Course Information

Prefix	POLS
Number	1110
Title	Introduction to Political Science
Number of credits	3

## Was this course previously part of the New Mexico General Education curriculum?

Yes

## Co-requisite Course

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)

## New Mexico Common Course Information

Prefix	POLS
Number	1110
Name	Introduction to Political Science

## A. Content Area and Essential Skills

## To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Social & Behavioral Sciences - Communication, Critical Thinking, Personal & Social Responsibility

## B. Learning Outcomes

### List all common course student learning outcomes for the course.

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

1. Construct reasoned civic discourse to advocate a stance or examine alternate positions.
2. Identify fundamental concepts and theories in political science.
3. Analyze data and information in order to gain a deeper understanding of the material.
4. Articulate how the public influence and are influenced by politics.
5. Identify and compare government systems from democracy to authoritarian, as well as models of analysis of contemporary international relations.

### Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

NA

## C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

**Communication. Genre and Medium Awareness, Application and Versatility; Strategies for Understanding and Evaluating Messages; and Evaluation and Production of Arguments.**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of communication.*

Genre and Medium Awareness, Application and Versatility

Students demonstrate genre and medium awareness, application, and versatility through participation and completion of the weekly discussions (both written and oral), which directly correspond to the weekly readings and videos. The readings and videos relate to evaluating and critiquing course materials that address the applicable/relevant political issues. Further, the students utilize a variety of sources (both written and audio/videos; both provided and through their own research) in their research paper and their reflection paper. Through course instruction, students are guided in learning to evaluate the pros and cons in both written and audio/visual content to find evidence to support their claims.

Strategies for Understanding and Evaluating Messages:

Students practice strategies for understanding and evaluating messages by the close and critical reading/viewing of assigned course materials, while also applying political theories to current political issues. Students practice critical thinking skills (in conjunction to the application of course content) by seeking key arguments and rebuttals to provide evidence-based arguments and ideas about political issues during the participation of class discussions and the completion of the reflection paper and the research paper.



### Evaluation and Production of Arguments:

Evaluation and production of arguments is demonstrated by students' applying political science concepts when engaging in class discussions and by the completion of targeted papers (both reflective and research) which guide them to critically examine videos/readings. Students are evaluated on the thoroughness of their responses during discussions and writing assignments. The writing assignments and class discussions are scaffolded to provide guidance for evaluating arguments, which, in turn, models best practices for the production of arguments. As part of the research process for both the weekly discussions and written assignments, students are guided and supported in learning how to evaluate the credibility, validity, and authority of primary and secondary sources when seeking key evidence to support both their perspective and the rebuttals. Finally, students utilize APA to ensure that the research they use to support their positions in the discussions and written assignments are cited appropriately.

---

***Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.***

*In this box, provide a narrative that explains how the proposed course addresses all of the components of critical thinking.*

Problem solving: Students are delineated a problem or question through weekly discussions posts, short answer essays on weekly quizzes, reflection and research papers, and group projects. Students state problem/question appropriate to the context by analyzing and critically interpreting political theories from each historic period placing emphasis on key figures, dates, and theories through reading assigned chapters from their textbooks, assigned articles, and by watching assigned videos.

Evidence Acquisition: Students identify and gather the information/data necessary to address the problem or question by utilizing a variety of tools, through independent research, reading assigned books, watching assigned videos that address course objectives.

Evidence Evaluation: Students evaluate evidence/data for credibility, probable truth, and relevance to a situation during the time they are working on their research, reflection papers, short answer essays, and group projects. The above-mentioned assignments require students to use credible sources and provides information on how to find credible sources and distinguish between credible and non-credible sources. The assignments provide guidance to students on how to identify the audience a text/article is written for, identify any biases within the article/text, look for evidence in the article for priming, framing, and slant. And finally, if the article is playing more to one specific ideology and if so, what ideology. Finally, students utilize APA to ensure that the research they use to support their positions in the discussions and written assignments are cited appropriately.

Reasoning and conclusion: Students develop conclusions, solutions, and outcomes that reflect an informed, well-reasoned evaluation by utilizing the guidance and matrix provided to them on how to distinguish between credible and non-credible sources. This must be done before the assignment is submitted for grading. The instructor evaluates student answers and provides specific feedback based on the matrix.

---

***Personal & Social Responsibility. Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills,***

***teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global***

*In this box, provide a narrative that explains how the proposed course addresses 2 of the components of personal & social responsibility.*

Intercultural reasoning and intercultural competence: Students will explore and be able to demonstrate a basic knowledge of a range of personal, social, cultural, and social justice issues by weekly participation in the Discussion Board. Students are required to answer specific questions pertaining to the subjects mentioned above and respond to their peers' posts by indicating why they agree or disagree with them, and support their opinion with facts from the assigned texts/articles/videos.

Sustainability and the natural and humans worlds: Students examine the relationship among environmental, socio-cultural, political, and economic system as they interact with and affect the sustainability of the natural and human worlds by analyzing theories, world governments, and the American political system, the importance of civic and political involvement, and social movements through participating in the weekly discussion boards, answering weekly short answer essay questions, and a semester long project.

Ethical Reasoning: Students demonstrate the knowledge of ethical responsibilities and moral norms by writing a research paper that focuses on Civil Rights and Women's Rights movement. The research paper requires students to imagine that they lived during the Civil Rights era and articulate whether they would participate in fighting for Civil and Women's rights. They share their reasoning with their peers and actively participate in a discussion to support their opinion with facts from the textbook or other additional materials.

Collaboration skills, teams and value systems: Students collaborate with their peers through participating in weekly discussions. Students are required to respond to their peers and express their opinion to generate a free flow of ideas. Students also work a group project, on a subject that all group members agree on based on shared group goals.

Civic discourse, civic knowledge and engagement-local and global: Through a semester-long project, students gain a better understanding of community issues and resources, and develop a familiarity with local, state, and federal government entities. During the first stage of the project, the students will identify an issue or concern facing their community and discuss their findings with their classmates.

During the second stage of the project, students will identify local representatives that they can contact to address their concerns. During the third stage of the project, students will be required to draft a letter to their local representative addressing their concern or they will be required to attend a public policy-making meeting and write a report about the meeting. Students provide a draft of their letter, and their group members review, evaluate, and provide feedback to the student. Students gain the skills necessary to understand and evaluate political choices and outcomes. Students demonstrate an understanding of different strategies for political participation and knowledge of rights and responsibilities of citizens.

#### **D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

[https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan\\_ENMURoswell.pdf](https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan_ENMURoswell.pdf)

**This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).**

A handwritten signature in black ink, appearing to read "RM / AMO", is written on a light gray background.

**Date**

Mar 24 2021

## **Upload Assessment**

**Completed** - Mar 24 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of

the course.

## **Research Paper POLS 1110**

**Filename:** Research\_Paper\_POLS\_1110.pdf **Size:** 394.7 kB

## **Upload Rubric**

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

## **Application: 0000001433**

Dinah Hamilton - dinah.hamilton@enmu.edu  
NM General Education Curriculum

### **Summary**

**ID:** 0000001433

**Status:** Under Review

**Last submitted:** Mar 17 2021 11:30 AM (MDT)

## **Application Form**

**Completed** - Mar 17 2021

## **Application Form**

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## **Essential Skills**

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility

5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

### Contact Information

Name	Dinah Hamilton
Title	Department Chair
Phone	575-315-1160
Email	<a href="mailto:Dinah.Hamilton@enmu.edu">Dinah.Hamilton@enmu.edu</a>

### Submitting Institution

Name of HEI	ENMU-Ruidoso
Submitting Department	History, Humanities and Social Sciences

### Chief Academic Officer

Name	Coda Omness
Email	<a href="mailto:Coda.Omness@enmu.edu">Coda.Omness@enmu.edu</a>

### Registrar

Name	Amy Means
Email	<a href="mailto:Amy.Means@enmu.edu">Amy.Means@enmu.edu</a>

### Is this application for your entire system (ENMU, NMSU, & UNM)?

No

### Institutional Course Information

Prefix	CJUS
Number	2140
Title	Criminal Investigations
Number of credits	3

### Was this course previously part of the New Mexico General Education curriculum?

No

## Co-requisite Course

Prefix	N/A
Number	(No response)
Title (if applicable)	(No response)

## New Mexico Common Course Information

Prefix	CJUS
Number	2140
Name	Criminal Investigations

### A. Content Area and Essential Skills

#### To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Social & Behavioral Sciences - Communication, Critical Thinking, Personal & Social Responsibility

### B. Learning Outcomes



**List all common course student learning outcomes for the course.**

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

1. Describe the various types of laws governing society and the role of the investigator in courtroom testimony.
2. Define investigative terms that are currently being used in the criminal justice system.
3. Describe the various procedures involved in processing crime scenes and collecting evidence.
4. Define and illustrate the purpose of investigation and the basic structure of the investigatory process
5. Describe the methods police investigators use to solve crimes.

**Institution-specific Student Learning Outcomes**

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

N/A

**C. Narrative**

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

***Communication. Genre and Medium Awareness, Application and Versatility; Strategies for Understanding and Evaluating Messages; and Evaluation and Production of Arguments.***

*In this box, provide a narrative that explains how the proposed course addresses all of the components of communication.*

Students are prepared to become versatile communicators who can respond to a diverse range of situations with appropriate written, oral, visual, or digital texts and performances. This is accomplished by the students completing: A major paper, unit written assignments and unit discussion postings. All papers are required to be submitted in APA format.

Students learn how to evaluate court decisions and current laws and present their own arguments regarding these topics. Weekly classroom discussions are also assigned in which students post their opinion on controversial police searches or evidence collection and respond to other student's discussion postings.

***Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.***

*In this box, provide a narrative that explains how the proposed course addresses all of the components of critical thinking.*

Students utilize critical skills by analyzing the causes of crime, evaluating problems and solutions in modern policing and effective investigative techniques.

Students engage in problem setting with attention to types of criminal investigations such as robbery, crimes against children, larceny, fraud, arson and motor vehicle theft. Students discuss investigations as it relates to evidence collection and court preparation. Attention is given to each distinctive area of the how different crimes are investigated. Disparities in the way in which investigation manipulation can occur are discussed as it relates to socioeconomic status and race. The course utilizes power points, subject related websites and peer-reviewed journal articles.

Evidence acquisition is obtained in a final research paper which asks students to provide evidence or factual materials on the type of crime they selected. Students utilize their textbook and website readings to form an argument. Then students must provide an argument as to whether evidence collection and pre-trial procedures were fair and just. Students must provide details about the case by discussing events of the case, including police investigative information. They must provide explicit details of the case and their assessment of the evidence collection process. The final paper is required is graded with written feedback on the overall contents of the paper.

The five-page written paper must provide logical reasoning and arrive at a conclusion. The student must provide a thesis, summary of the criminal case, argumentation and supporting evidence.

Students are also asked to evaluate evidence on several current criminal investigation hot topics in weekly discussion postings. Students are asked to respond to the original instructor posting and respond to at least one other student's post.

**Personal & Social Responsibility. *Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global***

*In this box, provide a narrative that explains how the proposed course addresses 2 of the components of personal & social responsibility.*

This course seeks to introduce students to basic criminal investigations. Documentation of the crime scene, searches, forensic evidence and report writing are discussed. Likewise, racial, socioeconomical and ethical considerations are discussed as they pertain to the way in which evidence is collected and how they relate to documentation submitted to the court for trial. Students are exposed to high profile violent crimes and discuss whether evidence was collected and reported correctly. Students also learn modern policing techniques such as DNA, fingerprints, and other forensic evidence.

Civic discourse, civic knowledge and engagement occurs locally and globally. Students participate in weekly discussions in which they form opinions on topics such as the searches, knock and talks, and identifying and arresting subjects. The students must respond to other students posts in relation to the topic. In recent times, some evidence collection procedures such as DNA collection provide an opportunity to discuss personal and social responsibility in ensuring the correct offender is apprehended.

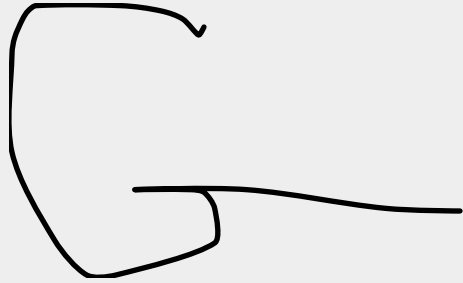
---

#### **D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

The assessment plan is currently under construction and will be available on the college website.

This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).



**Date**

Mar 17 2021

## Upload Assessment

**Completed** - Mar 17 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

### [CJUS 2140 Assignment and Rubric-1](#)

**Filename:** CJUS\_2140\_Assignment\_and\_Rubric-1.pdf **Size:** 242.5 kB

## Upload Rubric

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

## Application: 0000001452

James Scott - james.scott@nmt.edu  
NM General Education Curriculum

### Summary

**ID:** 0000001452

**Status:** Under Review

**Last submitted:** Mar 25 2021 03:18 PM (MDT)

## Application Form

# Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.

- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

### Contact Information

Name	Matt Johnson
Title	Assistant Professor
Phone	575-835-5445
Email	<a href="mailto:matthew.johnson@nmt.edu">matthew.johnson@nmt.edu</a>

### Submitting Institution

Name of HEI	New Mexico Institute of Mining and Technology
Submitting Department	Department of Communication, Liberal Arts and Social Sciences

### Chief Academic Officer

Name	Dr. Steve Simpson
Email	<a href="mailto:steve.simpson@nmt.edu">steve.simpson@nmt.edu</a>

### Registrar

Name	James Scott
Email	<a href="mailto:james.scott@nmt.edu">james.scott@nmt.edu</a>

### Is this application for your entire system (ENMU, NMSU, & UNM)?

(No response)

## Institutional Course Information

Prefix	SPAN
Number	216
Title	Intermediate Spanish II
Number of credits	3

## Was this course previously part of the New Mexico General Education curriculum?

Yes

## Co-requisite Course

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)

## New Mexico Common Course Information

Prefix	SPAN
Number	2120
Name	Intermediate Spanish II

## A. Content Area and Essential Skills



**To which area should this course be added?**

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Humanities - Information & Digital Literacy, Critical Thinking, Personal & Social Responsibility

---

**B. Learning Outcomes**

---

**List all common course student learning outcomes for the course.**

Common Course Student Learning Outcomes (find Common Course SLOs at:

<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

SPAN 2120. Spanish IV. Common Course Student Learning Outcomes (find Common Course SLOs at:

[https://hed.state.nm.us/uploads/documents/Course\\_Catalog\\_V18.pdf](https://hed.state.nm.us/uploads/documents/Course_Catalog_V18.pdf))

1. Students can participate with ease and confidence in conversations on familiar topics.
2. Students can usually talk about events and experiences in various time frames.
3. Students can usually describe people, places, and things.
4. Students can handle social interactions in everyday situations, sometimes even when there is an unexpected complication.
5. Students can make presentations in a generally organized way on school, work, and community topics, and on topics they have researched.
6. Students can make presentations on some events and experiences in various time frames.
7. Students can write on topics related to school, work, and community in a generally organized way.
8. Students can write some simple paragraphs about events and experiences in various time frames.
9. Students can easily understand the main idea in messages and presentations on a variety of topics related to everyday life and personal interests and studies.
10. Students can usually understand a few details of what they overhear in conversations, even when something unexpected is expressed.
11. Students can sometimes follow what they hear about events and experiences in various time frames.
12. Students can easily understand the main idea of texts related to everyday life, personal interests, and studies.
13. Students can sometimes follow stories and descriptions about events and experiences in various time-frames.

## Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

Intermediate Spanish Learning Outcomes (SPAN 215 and SPAN 216): In line with the recommendations of the American Council on the Teaching of Foreign Languages (ACTFL), students in the intermediate Spanish sequence at NMT will develop solid competencies in five intertwined goal areas for foreign language learning: Communication, Cultures, Connections, Comparisons, and Communities.

- Communication: You will learn to interact with one another and negotiate meaning using Spanish, sharing information, feelings, reactions, and opinions. You will learn to analyze and interpret spoken and written Spanish about a variety of basic topics; and you will develop skills in presenting information on topics related to your own lives and life in the Hispanic world.
- Cultures: You will learn to relate your own cultural backgrounds to the diverse cultures of the Hispanic world. You will learn to interact in Spanish with cultural competence and understanding, and reflect on the complex relationship between language and culture.
- Connections: You will begin connecting your study of the Spanish language to your broader personal, academic, and professional goals and life situations.
- Comparisons: You will relate your study of the Spanish language to the other languages you speak and use in your academic and everyday lives. You will gain insight into the nature of language and culture, and you will develop a series of metacognitive skills related to learning languages.
- Communities: You will build your capacity to use Spanish in the multilingual communities of New Mexico, the United States, and the Hispanic world. You will also develop the skills and motivation needed to become lifelong learners of the Spanish language.

## C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

### **Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of critical thinking.*

SPAN 216 is taught using communicative and task-based approaches to language learning, in line with the recommendations of the American Council on the Teaching of Foreign Languages (ACTFL). As students develop their communicative capacities, they exercise critical thinking in a variety of manners. When learning new vocabulary, students study textbook pages that combine Spanish words and visual images, and they must infer the meanings of the words. Grammar lessons also ask students to use inference to derive general rules from specific examples, such as rules for conjugating past-tense verbs. Students are assessed informally in class through comprehension checks and short activities (fill-in-the-blank, multiple choice, short answer), and are assessed formally in weekly homework assignments and two major exams. In class, students are also asked to compare and contrast the structures of English and Spanish, helping them to think critically about language and communication.

Students study a series of videos and newspaper articles in class and in homework assignments. Preliminary activities ask students to anticipate what they will be reading about, based on article titles or general topics. This allows them to identify questions and problems the materials may help them resolve, and orients them in acquiring evidence from materials that will push the limits of their listening and reading skills. Over the course of the semester, they also learn a series of reading and listening strategies via class activities and short homework assignments. Each chapter contains a short literary reading, and these texts are supplemented by articles and videos about Hispanic life and culture. After completing readings/viewings, students' capacity to evaluate evidence is evaluated through informal

comprehension checks and short exercises, generally multiple-choice or short answer. Class discussions ask them to apply reasoning and draw conclusions regarding the material. For example, in a chapter on artistic expression in Latin America, students read articles and reflect on Indigenous art and artists in the Andean region, and discuss in class the ways in which art forms part of everyday life in the United States and in South America.

Finally, the summative project of SPAN 216 is a research presentation in which students choose a specific country and a specific topic related to the textbook chapters. Possible topics include careers and professional life in the Hispanic world; artistic expression in Latin America; environmental issues and movements to protect the environment; and community activism and social movements. Students use presentation software (Google Slides or PowerPoint) and audiovisual recording technologies (Zoom, Google Slides or PowerPoint) to create interactive presentations that classmates view during the final week of class.

**Personal & Social Responsibility. Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global**

*In this box, provide a narrative that explains how the proposed course addresses 2 of the components of personal & social responsibility.*

Students in SPAN 216 learn that language and culture are deeply intertwined: to learn to communicate in Spanish, one must learn an array of cultural competencies. In SPAN 216, this includes learning practices for politely interacting with salespeople and artisans when purchasing products in stores and markets; cultural norms for polite interaction in professional settings; and vocabulary for discussing and respecting cultural diversity. In class, students are asked to reflect on differences between North American and Hispanic cultural practices. Their intercultural reasoning skills are assessed via informal comprehension checks in class, their successful use of cultural practices in a series of role-playing tasks, and short written paragraphs in weekly homework assignments. In SPAN 216, one chapter focuses on environmental issues in Latin America, and social movements that are working to protect the environment. In this chapter, students formulate their own positions regarding social responsibility and the environment, and contrast local issues relating to land and water rights in New Mexico to issues in Latin America.

SPAN 216 utilizes a student-centered approach, with frequent pair and small group work. In virtual classes, this includes extensive use of breakout rooms to allow for collaboration and communication between students. In in-person classes, small group work and pair activities are also employed. Students build teamwork and collaborative skills by creating skits to perform for fellow classmates and completing short writing assignments during group activities. In group activities, students are often asked to clearly define each member's role, and to produce a completed product (a skit, or a shared Google Doc) within a specified timeframe. They learn accountability and ethical responsibility, in that their completion of tasks is necessary to support their peers.

Finally, the summative project of SPAN 216, the research presentation, asks students to synthesize many of the skills discussed above. In an initial outline assignment, students demonstrate their capacity to describe intercultural differences and formulate ethically and culturally appropriate research questions. In their research and their presentation, they broaden their understanding of cultural differences and apply their knowledge of Hispanic culture in presentations that profile key areas of contemporary Hispanic life and culture.

**Information & Digital Literacy. Authority and Value of Information; Digital Literacy; Information Structure; and Research as Inquiry**

*In this box, provide a narrative that explains how the proposed course addresses **3** of the components of digital literacy.*

As students build their communicative capacities in Spanish, they utilize a broad variety of online sources. They are asked to use dual-language dictionaries such as [www.wordreference.com](http://www.wordreference.com) and [www.spanishdict.com](http://www.spanishdict.com), and throughout the semester they learn to use a variety of features of these dictionaries, such as verb charts, example sentences, and audio recordings of word pronunciation by native speakers. They are also trained to toggle between Spanish and English pages on Wikipedia to study vocabulary relating to their interests. For example, one student may be interested in learning how to talk about art with greater fluency (such as "easel," "oil painting," and "conceptual art") in Wikipedia, toggling to the Spanish page to see how these terms are used in Spanish. They also learn to use Google and Google Images to search for and find information on grammar topics. Through use, they learn to judge the value of different sources information. They are assessed in a series of short meta-cognitive assignments in which their responses demonstrate their digital literacy as students of the Spanish

language.

During the semester, students also complete two research presentations: a short, informal presentation in Spanish on one of the Latin American countries profiled in the course textbook, and a longer, formal presentation on a topic related to the cultural themes covered in class. For both presentations, they are asked to construct a PowerPoint/Google Slides presentation with properly cited visuals (URLs or hyperlinks), and they are given a brief lesson in class concerning basic research practices, with particular emphasis on the use of sites like Wikipedia and YouTube to encounter textual and visual information. Students are given a set of broad questions to guide their research, and must structure their presentations in a way that fulfills the assignments' dual objective of informing and entertaining the other students in class. Students are assessed on their use of Spanish and on their capacity to utilize presentation apps and visual materials to communicate information.

Throughout the semester, students in SPAN 216 also complete a series of video assignments. They record themselves communicating information about different course topics at the end of textbook chapters using the video app FlipGrid, and they complete their final presentation project using presentation software and video-recording software.

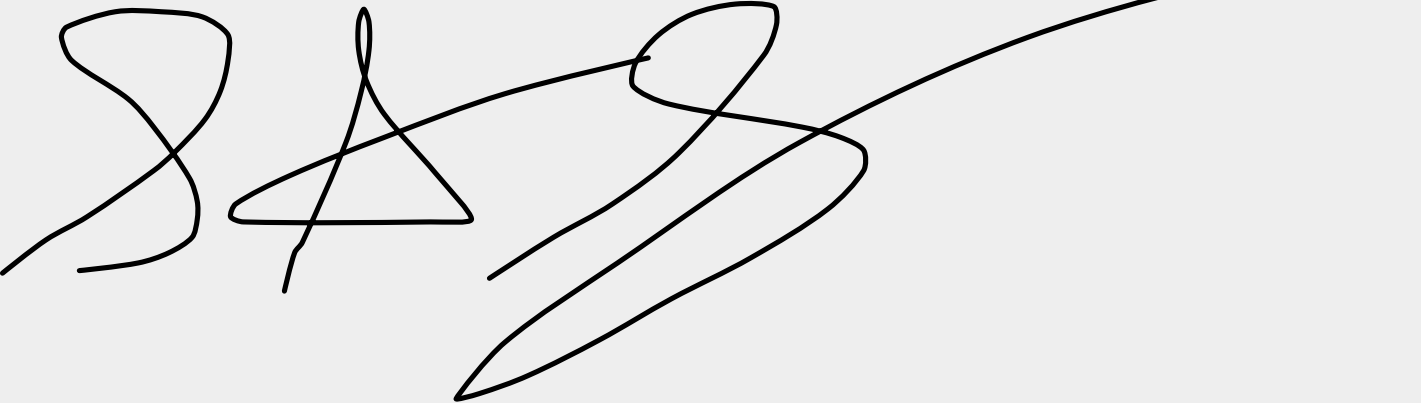
---

#### **D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

<https://www.nmt.edu/academicaffairs/assessment/gened.php>

This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).

A large, stylized handwritten signature in black ink on a light gray background. The signature consists of several loops and a long, sweeping horizontal line that extends towards the right edge of the frame.

**Date**

Mar 22 2021

## Upload Assessment

**Completed** - Mar 22 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

[\*\*Matt Johnson--Gen Ed Certification Supporting Document \(SPAN 2120\)\*\*](#)

**Filename:** Matt\_Johnson--Gen\_Ed\_Certification\_Sup\_P5ocfch.pdf **Size:** 160.8 kB

## Upload Rubric

**Completed** - Mar 22 2021

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

[\*\*Span 2120 Rubric\*\*](#)

**Filename:** Span\_2120\_Rubric.pdf **Size:** 152.3 kB

# Application: 0000001428

Robert Moore - Robert.Moore@rm01.enmuros.cc.nm.us  
NM General Education Curriculum



## Summary

**ID:** 0000001428

**Status:** Under Review

**Last submitted:** Mar 16 2021 08:58 AM (MDT)

## Application Form

**Completed** - Mar 16 2021

## Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course

# Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

## Contact Information

Name	Robert Moore
Title	Assistant VP
Phone	5756247001
Email	<a href="mailto:robert.moore@roswell.enmu.edu">robert.moore@roswell.enmu.edu</a>

## Submitting Institution

Name of HEI	ENMU-Roswell
Submitting Department	Behavioral Science

## Chief Academic Officer

Name	Annemarie Oldfield
Email	<a href="mailto:annemarie.oldfield@roswell.enmu.edu">annemarie.oldfield@roswell.enmu.edu</a>

## Registrar

Name	Linda Neel
Email	<a href="mailto:linda.neel@roswell.enmu.edu">linda.neel@roswell.enmu.edu</a>

**Is this application for your entire system (ENMU, NMSU, & UNM)?**

No

**Institutional Course Information**

Prefix	SOCI
Number	2310
Title	Contemporary Social Problems
Number of credits	3

**Was this course previously part of the New Mexico General Education curriculum?**

Yes

**Co-requisite Course**

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)

**New Mexico Common Course Information**

Prefix	SOCI
Number	2310
Name	Contemporary Social Problems

**A. Content Area and Essential Skills**

## To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Social & Behavioral Sciences - Communication, Critical Thinking, Personal & Social Responsibility

## B. Learning Outcomes

### List all common course student learning outcomes for the course.

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

1. Identify and explain major social problems in the United States, and how social problems become constructed as problems.
2. Describe and analyze policy related solutions associated with social problems from various perspectives.
3. Critically examine social problems through the use of sociological theories, methods, and empirical techniques.
4. Identify connections, both national and global, between social problems and social inequalities (e.g., social class, race/ethnicity, and gender/sexuality).

### Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

None

## C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

***Communication. Genre and Medium Awareness, Application and Versatility; Strategies for Understanding and Evaluating Messages; and Evaluation and Production of Arguments.***

*In this box, provide a narrative that explains how the proposed course addresses all of the components of communication.*

**Genre and Medium Awareness, Application and Versatility:**

This course covers a diverse range of topics related to essential theories and practices of sociology. Critical issues of social inequalities are examined using sociological perspectives and the sociological imagination. Further, both the perspectives and the sociological imagination provide the lens to examine fundamental issues of social behavior, such as social institutions/structures, intersectionality and the connections between race, gender, class, ability, and sexual identify (as well as other forms of institutional inequalities). Students demonstrate genre and medium awareness, application, and versatility through weekly discussions (both written and oral), which correspond to weekly reading/writing (current events and policy brief components) assignments, which relate to evaluating and critiquing videos that address the applicable/relevant social issues.

**Strategies for Understanding and Evaluating Messages:**

Students practice strategies for understanding and evaluating messages by the close and critical reading/viewing of assigned course materials, while also applying course content to sociological issues. Students practice critical thinking skills (in conjunction to the application of course content) by providing evidence-based arguments and ideas about sociological issues during the participation of class discussions and the completion of current event and policy brief components.

**Evaluation and Production of Arguments:**

Evaluation and production of arguments is demonstrated by students' applying sociological concepts when engaging in class discussions and by the completion of targeted current event projects which guide them to critically examine videos/readings. Students are evaluated on the thoroughness of their responses during discussions and current event assignments. The current event assignments and class discussions are scaffolded to provide guidance for evaluating arguments, which in turn models best practices for the production of arguments.

***Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.***

*In this box, provide a narrative that explains how the proposed course addresses **all** of the components of critical thinking.*

Critical Thinking skills will be practiced by students in a variety of contexts, such as: class discussions, critical readings of assignment texts and/or viewing of assigned videos, current event projects, and policy brief components. Such assignments provide students with diverse opportunities to demonstrate their ability to develop and express their positions, gather evidence, evaluate evidence, and reach reasonable solutions.

#### Problem Setting:

Through the use of weekly class discussions and writing assignments, critical thinking is re-enforced based on the close reading of assigned readings, as well as close viewing of critical videos. The discussions and written assignments require that students demonstrate their newly developed critical thinking skills as evidenced in the reasoned thinking used to evaluate others' arguments (discussions, readings, and videos), and in supporting their own positions on the topics presented.

#### Evidence Acquisition:

Students gather evidence through the careful reading of assigned texts and viewing of videos, while also evaluating the credibility of sources in weekly discussions and written assignments. Additionally, students are able to demonstrate mastery of content (i.e the weekly reading/videos) during the class discussions and in their weekly written assignments. The weekly written assignments (current events and policy brief components) require that students gather information from credible sources, critique the information gathered, and properly cite their sources.

#### Evidence Evaluation:

Students evaluate their own (and others') positions during the class discussions. They analyze and evaluate the data gathered/reviewed in the weekly discussions and writing (current events and policy brief components) assignments, which assists them in drawing reasonable conclusions based on evidence.

#### Reasoning/Conclusion:

Students then explain their understanding of and solution for the problems addressed in class (focus on social inequalities with a solution-based lens). This focus on solutions is evidenced in their class discussions and current event assignments. Finally, their policy brief components are a solution-orientated assignment, which requires that students develop solutions to the social problems that they

identified as part of this assignment.

**Personal & Social Responsibility. *Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global***

*In this box, provide a narrative that explains how the proposed course addresses 2 of the components of personal & social responsibility.*

#### Ethical Reasoning:

Ethical Reasoning is nurtured and developed by exploring topics from a variety of perspectives, cultures, traditions, and belief systems, with a focus on power dynamics, conflict, and systemic inequalities across a variety of intersectionality markers. The concepts of ethnocentrism and cultural relativism are introduced at the beginning of the course, but are revisited throughout the course in class discussions and assignments. Students also demonstrate their understanding of ethical reasoning in their class discussions and written assignments.

#### Civic Discourse

Class discussion promotes collaboration in examining a variety of perspectives and viewpoints, and in identifying and discussing social and ethical issues. Additionally, civic discourse is encouraged in identifying the connections between society, the individual, social/cultural artifacts and beliefs, and the natural world in class discussions and in class collaborative projects (like jigsaws). Students demonstrate their understanding of varied value systems in their class discussions and weekly writing assignments. Finally, students are guided through the process of engaging in civic discourse during their weekly discussions as evidenced thorough their participation in respectful civic dialogue that shares differing perspectives and recognizes that there are multiple valid responses to local and global issues. These abilities are evident in their initial response, as well as their subsequent responses (i.e. dialogue).



#### D. Assessment Plan (Must be on file with HED by August 1, 2019)

Link to Institution's General Education Assessment Plan

[https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan\\_ENMURoswell.pdf](https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan_ENMURoswell.pdf)

**This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).**

A handwritten signature in black ink on a light gray background. The signature appears to be "Rm / AWD".

**Date**

Mar 16 2021

## Upload Assessment

**Completed** - Mar 16 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

**[SOCI 2310 Policy Brief Instructions\\_Sp 2021](#)**

**Filename:** SOCI\_2310\_Policy\_Brief\_Instructions\_Sp\_2021.pdf **Size:** 233.1 kB

## Upload Rubric

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

**Application: 0000001437**

Dinah Hamilton - dinah.hamilton@enmu.edu

## Summary

**ID:** 0000001437

**Status:** Under Review

**Last submitted:** Mar 18 2021 12:14 PM (MDT)

## Application Form

**Completed** - Mar 18 2021

## Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

# Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

## Contact Information

Name	Dinah Hamilton
Title	Department Chair
Phone	575-315-1160
Email	<a href="mailto:Dinah.Hamilton@enmu.edu">Dinah.Hamilton@enmu.edu</a>

## Submitting Institution

Name of HEI	ENMU-Ruidoso
Submitting Department	History, Humanities and Social Sciences

## Chief Academic Officer

Name	Coda Omness
Email	<a href="mailto:Coda.Omness@enmu.edu">Coda.Omness@enmu.edu</a>

## Registrar

Name	Amy Means
Email	<a href="mailto:Amy.Means@enmu.edu">Amy.Means@enmu.edu</a>

**Is this application for your entire system (ENMU, NMSU, & UNM)?**

No

**Institutional Course Information**

Prefix	PSYC
Number	2260
Title	Positive Psychology
Number of credits	3

**Was this course previously part of the New Mexico General Education curriculum?**

No

**Co-requisite Course**

Prefix	N/A
Number	(No response)
Title (if applicable)	(No response)

**New Mexico Common Course Information**

Prefix	PSYC
Number	2260
Name	Positive Psychology

**A. Content Area and Essential Skills**

## To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Social & Behavioral Sciences - Communication, Critical Thinking, Personal & Social Responsibility

## B. Learning Outcomes

### List all common course student learning outcomes for the course.

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

1. Explain the aim and scope of positive psychology
2. Describe the central research questions, theories, concepts, and methodologies used in the study of positive psychology
3. Evaluate the psychological factors that contribute to a sense of well-being
4. Demonstrate applications of core concepts of positive psychology in their personal lives

### Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

N/A

## C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

***Communication. Genre and Medium Awareness, Application and Versatility; Strategies for Understanding and Evaluating Messages; and Evaluation and Production of Arguments.***

*In this box, provide a narrative that explains how the proposed course addresses all of the components of communication.*

Students are required to engage in both informal and formal discussions and weekly summary and reflection papers revolving around selected course content. This is accomplished on a weekly basis through specific questions and prompts targeting main points, key arguments and sharing examples of positive psychology at work in their everyday lives.

Students respond weekly to targeted questions to develop the skill of evaluating and producing effective arguments, summarizing their learning, and applying concepts to their everyday lives. Examples include summarizing and reflecting on TED Talks, learning to read and summarize academic journal articles and evaluating how the research in positive psychology is presented in the main stream media.

Sample assignments include: a film analysis paper; the assignment is to analyze -- from a positive psychology perspective -- the behaviors and signature strengths depicted in one of a list of films. (see attached); reflection papers on the specific positive psychology strategies students are practicing and critiques of research studies in positive psychology

**Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of critical thinking.*

Students hone their critical thinking skills in this class by engaging with readings, videos, and activities designed to encourage and support problem-based learning.

This is assessed through writing assignments, research gathering and evaluation,

Students work in small groups to understand a question, study their sources (text book, research article and each other) gather evidence, differentiate fact from opinion and then share their learning with other students. For instance: according to the research in positive psychology, explain why positive thinking is not the same as positive psychology;

Students bring examples of positive psychological principles/concepts they find in the main stream media and present their analysis of the how the media presented the findings; ie: What is the problem or issue the media claims to address? What evidence is provided for their claim? Is the evidence presented factually?

**Personal & Social Responsibility. Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global**

*In this box, provide a narrative that explains how the proposed course addresses 2 of the components of personal & social responsibility.*

In this class, students regularly collaborate work together in small groups to discuss and share their understanding of the readings, videos and to create group presentations on targeted problems/questions.

Students learn about ethical research methods in psychology and limitations of research in positive psychology ie:

Summarize the basic ethical guidelines that all researchers must follow before conducting research with human or animal subjects.

Students demonstrate their understanding of ethics in research through short response papers or discussions about how they would create a method to study the effects of mindfulness practice on subjects with anxiety, for instance.

Civic Discourse: Students complete a variety of assignments such as short response papers, class discussions where students articulate their informed opinions on different controversial topics in positive psychology such as: can too much positivity lead to disappointment or is there an upside to pessimism?

Groups are given prompts/questions designed to encourage members to assess and share their individual perceptions and understanding of an issue. They are encouraged to assess their own perspectives and prejudices/biases and to engage in civil discourse with their classmates.

Collaboration and teamwork are essential learning methods in this class with regular assignments designed to enhance students' active listening skills, engagement in collaborative learning and evaluation of different viewpoints.



#### D. Assessment Plan (Must be on file with HED by August 1, 2019)

Link to Institution's General Education Assessment Plan

The assessment plan is currently under construction and will be available on the college website.

**This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).**

.

**Date**

Mar 18 2021

## Upload Assessment

**Completed** - Mar 18 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

### [FILM ANALYSIS PAPER](#)

**Filename:** FILM\_ANALYSIS\_PAPER.pdf **Size:** 277.1 kB

## Upload Rubric

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

# Application: 0000001469

Robert Moore - Robert.Moore@rm01.enmuros.cc.nm.us  
NM General Education Curriculum

### Summary

**ID:** 0000001469

**Status:** Under Review

**Last submitted:** Mar 24 2021 02:35 PM (MDT)

# Application Form

Completed - Mar 24 2021

## Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

### Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

### Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

### Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.

- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

### Contact Information

Name	Robert Moore
Title	Assistant VP
Phone	5756247001
Email	<a href="mailto:robert.moore@roswell.enmu.edu">robert.moore@roswell.enmu.edu</a>

### Submitting Institution

Name of HEI	ENMU-Roswell
Submitting Department	English

### Chief Academic Officer

Name	Annemarie Oldfield
Email	<a href="mailto:annemarie.oldfield@roswell.enmu.edu">annemarie.oldfield@roswell.enmu.edu</a>

### Registrar

Name	Linda Neel
Email	<a href="mailto:linda.neel@roswell.enmu.edu">linda.neel@roswell.enmu.edu</a>

**Is this application for your entire system (ENMU, NMSU, & UNM)?**

No

**Institutional Course Information**

Prefix	ENGL
Number	2310
Title	Introduction to Creative Writing
Number of credits	3

**Was this course previously part of the New Mexico General Education curriculum?**

Yes

**Co-requisite Course**

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)

**New Mexico Common Course Information**

Prefix	ENGL
Number	2310
Name	Introduction to Creative Writing

**A. Content Area and Essential Skills**

## To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Humanities - Information & Digital Literacy, Critical Thinking, Personal & Social Responsibility

## B. Learning Outcomes

### List all common course student learning outcomes for the course.

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

1. Participate in a constructive conversation and community about creative writing.
2. Read and critically engage with a variety of texts.
3. Compose creative works in various genres of creative writing.
4. Provide respectful, honest, and critical feedback to peers about their work.
5. Revise creative work based on peer feedback and critique.
6. Develop thoughtful workshop reflection on students' own writing and writing process.
7. Evaluate and engage with publication process.

### Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

NA

## C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

### **Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.**

*In this box, provide a narrative that explains how the proposed course addresses **all** of the components of critical thinking.*

[\*Problem Setting:] During the semester, students enjoy an active participation in a community of engaged writers through the production of original creative writing, adoption of editorial habits and skills, improvement of reading efficacy, participation in workshops and class discussions, and the writing of critical responses to classmates and professional writers' efforts. Students learn to draft and edit their writing, to deploy and understand the nomenclature of writing in general and genres (poetry, fiction, nonfiction) in particular, to work within specific formats and forms, to appreciate and shape their unique style, to value the impact their writing has within their personal cultures and the larger audiences who might read their work, and to share their work in public (publication, readings) forums. Students participate in individual and group activities while exploring creative writing and share their reactions and experiences through various kinds of written documents, including focused annotation.

[Evidence Acquisition:] Students access and consider evidence through their assigned course texts, recordings, handouts, the library's general collection, and the University's numerous databases (e.g., EBSCO, Academic Search Complete, ProQuest, JSTOR, etc.), and faculty-provided material to support their investigation and study of writing and writers. Students enjoy a wide variety of samples of each genre from published writers, which they annotate and discuss; their text provides them theoretical discussion of concepts, terms, and strategies for writing; they produce their own artifacts, which become additional forms of evidence for scrutiny, comment, and public scrutiny. A student might, for example, read ten poems, discuss the poems in class, write her own poem, and then discuss her and other

students' poems in workshop.

[\*Evidence Evaluation:] The course asks students to evaluate works from diverse authors, across diverse time periods and genres, as well as evaluate their own and other students' work. Through workshops, discussions, and written assignments (including peer evaluations, vocabulary review, and an essay that situates their writing among other professional writers) compel students to respond to primary texts, other students' positions, as well as professional critiques / reviews; the discussions and written responses model techniques of textual and cultural evaluation. Interactions with the faculty member and other students allow students to weigh observations and conclusions, to test the mettle of their thinking. During discussions (about a student's use of subtext, for example, or metaphor), students weigh the value of professional texts and other students' opinions. For many of the statements students make (in discussions, for example, about how to begin a poem), we emphasize currency, relevance, authority, accuracy, and purpose. Students are working on creating their own opinions and understanding of the material, their own style; many assignments (from workshops to recitations where student select, memorize, and read to the group small parts of an author's writing) make conscious the techniques of evaluation necessary to assure thoughtful and hearty presentation.

[\*Reasoning/Conclusion(s):] Students arrive at thoughtful, clean, and engaged poems, stories, and essay based on sound evaluation of others' writing (samples / models), instructor and textual guidance, and peer critique; their artifacts are their conclusions brought forth through an iterative process of reasoning through options and choices. They are guided to ask questions about style and strategy, form and genre; then they posit answers and enact their conclusion in their own writing. Repeated exposure to primary and secondary sources allow students to engage examples of good and poor reasoning, awkward or ineffective language, misguided form, affirming organization, and general patterns of writing and creative expression valuable for college-level academic discourse. Their final portfolio, for example, represents a collection of their reasoning process, revealed both through the editorial changes they've enacted and the reflective essay that makes conscious their choices and decisions during the writing process.

**Personal & Social Responsibility. *Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global***

*In this box, provide a narrative that explains how the proposed course addresses 2 of the components of personal & social responsibility.*

[\*Intercultural Reasoning and Intercultural Competence:] During the semesters, through readings, discussions, and individual writing, students encounter a diverse selection of writers representing a multitude of socio-economic, religious, ethnic, gender, and identity perspectives; the readings derive from writers as diverse as Shakespeare and Chinua Achebe, Margaret Atwood and Mercedes de Acosta. Students, too, bring their unique cultural perspectives and backgrounds to discussion and their work. Many of the readings open windows on traditionally excluded or stifled perspectives and open channels for sympathetic engagement and appreciation. Because students arrive at the class with a significant diversity of original languages, economic-social-gender-race-religious-political backgrounds, their work, too, provides a unique opportunity to engage in cross-cultural appreciation. Student progress is measured in part on their ability to recognize and share differing perspectives and backgrounds, and they reflect their understanding in their original work, class discussions and workshop, and choices of external material to bring into the class. Students are asked, for example, in a journal exercise to inhabit the experience of someone with a background substantially different from their own.

[\*Civic Knowledge and Engagement—Local and Global:] The creative writing class and workshop is an exercise in civic engagement, and one by-product is an increased social intelligence—an ability to communicate across differences in productive and valuable ways. Throughout the semester, students tackle socio-cultural, artistic, religious, scientific, and political issues inherent in great literature and student writing; these explorations are anchored in practical, real-world examples and creative problem solving: we meet characters in crises and talk about the social milieu, the internal and external conflicts, the larger pressures that shape actions and thought. We might consider, for example, the novel “Into the Beautiful North” (Urrea, 2014) and have lengthy discussion about border politics, racism, and our role in others’ suffering. Nearly every primary text embraces the conversation of civic responsibility either as a critique, a model, or an investigation of communities in action; the texts provide the leaping-off point for conversations about how the individual is in conflict with, correspondent to, or estranged from civic duties, responsibilities, and obligations; their annotation and analyses allow them to reflect and sharpen their understanding.

---

**Information & Digital Literacy. Authority and Value of Information; Digital Literacy; Information Structure; and Research as Inquiry**



*In this box, provide a narrative that explains how the proposed course addresses 3 of the components of digital literacy.*

[\*Digital Literacy / Information Structures:] Students master Blackboard both to initiate and participate in several course discussions, communicate with their classmates and instructor, check their grades, and receive course-wide and institutional updates. Several class meetings, office hours, and individual meetings with faculty occur over Teams or Zoom. Students engage other important digital tools, including email, PowerPoint, web browsers, and often other platforms like Instagram for communication, research, and general communication. Students have access to tutoring services as well as a wealth of online tutorials and services available to assist their academic progress (Youtube videos, tutorials, Purdue Owl, etc.). These digital tools manifest in their assignments at every level. Their final presentation, for example, uses Power Point (with rich slides, including film and sound clips), to share their final portfolio with the class.

[\*Information Structures:] Students embrace the library, both physical and virtually, as an enormous campus resources to facilitate and conduct research and investigation. They have access to and are required to interact with the library's digital resources, including e-Books, electronic articles, and electronic reference works, especially in their vocabulary building exercises and in research for the details / examples they use in their creative writing efforts (they might need to research the name of a town or a particular name of a restaurant, for example).

[\*Research as Inquiry:] Each genre requires a unique series of questions to be asked and answered by the diligent student. A student writing a fiction story about the Old West might, for example, need to ask "how was mail delivered in the unincorporated West?" A different student might need to research the psychological implications of a particular drug. A poet wanting to write a pantoum would need to ask, What do they look like? And then research models and samples before beginning her own. When students read professional writers, their analysis derives from a series of questions and follows a learned pattern: what did I notice? What might what I noticed mean? Assignments and academic interaction in the classroom emphasize a student's ability to initiate, conduct, and arrive at conclusions through a variety of research methods. The course teaches students, first, to ask good questions and then to explore through personal and academic channels various forms of knowledge that assist them in drawing a conclusion. Students learn to supplement their observations with an array of support, including quotations from source material, professional commentary integrated into their writing, and other research. Assignments challenge students to appreciate their role in the knowledge-making adventure of academic, creative investigation through the process of asking questions and seeking solutions that are

well-supported and engaging. Sometimes, they answer questions the faculty member proposes; sometimes, they generate their own inquiry.

#### **D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

[https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan\\_ENMURoswell.pdf](https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan_ENMURoswell.pdf)

**This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).**

A handwritten signature in black ink, appearing to read "Rn / AMO", is displayed on a light gray background.

**Date**

Mar 24 2021

## **Upload Assessment**

**Completed** - Mar 24 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

### **ENGL 2310 Assignment**

**Filename:** ENGL\_2310\_Assignment.pdf **Size:** 410.9 kB

## **Upload Rubric**

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

# Application: 0000001538

Michael Bilopavlovich - michaelb@mesalands.edu  
NM General Education Curriculum

## Summary

**ID:** 0000001538

**Status:** Under Review

**Last submitted:** Mar 30 2021 04:41 PM (MDT)

## Application Form

**Completed** - Mar 30 2021

## Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

### Contact Information

Name	Michael Bilopavlovich
Title	Faculty
Phone	5754614413 ext. 150
Email	<a href="mailto:michaelb@mesalands.edu">michaelb@mesalands.edu</a>

### Submitting Institution

Name of HEI	Mesalands Community College
Submitting Department	Academic Affairs

### Chief Academic Officer

Name	Natalie Gillard
Email	<a href="mailto:natalieg@mesalands.edu">natalieg@mesalands.edu</a>

## Registrar

Name	Forrest Kaatz
Email	<a href="mailto:forrestk@mesalands.edu">forrestk@mesalands.edu</a>

### Is this application for your entire system (ENMU, NMSU, & UNM)?

No

### Institutional Course Information

Prefix	CHEM
Number	113
Title	General Chemistry
Number of credits	4

### Was this course previously part of the New Mexico General Education curriculum?

Yes

### Co-requisite Course

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)

## New Mexico Common Course Information

Prefix	CHEM
Number	1216C
Name	General Chemistry

### A. Content Area and Essential Skills

#### To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Science - Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning

### B. Learning Outcomes

#### List all common course student learning outcomes for the course.

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

#### STUDENT LEARNING OUTCOMES:

1. Apply the mole concept to amounts at a microscopic level and use this to perform stoichiometric calculations for reactions in solution, gases and thermochemistry.
2. Calculate solution concentrations in various units.
3. Apply the gas laws and kinetic molecular theory to relate atomic level behavior to macroscopic properties. 255 Revised 3/24/2021

4. Explain the electronic structure of atoms, isotopes and ions in terms of its subatomic particles.
5. Analyze how periodic properties (e.g. electronegativity, atomic and ionic radii, ionization energy, electron affinity, metallic character) and reactivity of elements results from electronic configurations of atoms.
6. Understand the nature of chemical bonds (ionic and covalent). Apply knowledge of electronic structure to determine molecular structure and polarity.
7. Understand the formation of different phases of matter and the underlying fundamental intermolecular interactions.
8. Describe physical states and changes, and distinguish these from chemical changes.
9. Describe the energy conversions that occur in chemical reactions and state changes, relating heat of reaction to thermodynamic properties such as enthalpy and internal energy; apply these principles to measure and calculate energy changes in reaction.
10. Apply principles of general chemistry to specific real-world problems in environment, engineering and health-related fields.

---

### **Institution-specific Student Learning Outcomes**

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

N/A

---

## C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

### **Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.**

*In this box, provide a narrative that explains how the proposed course addresses **all** of the components of critical thinking.*

Students will develop inferences and problem solving solutions based on data that they derive from the ten labs, lectures, and inference assignments. Students will collect evidence, and evaluate that evidence continually throughout the course using the different labs, lectures, and articles. Some examples in the class include; the Flame Test Lab, Measuring Mass Lab, Photoelectric Effect Lab, and Ideal vs Real Gas Law Lab. Some Examples of the Inference assignments in addition to the labs that promote Critical Thinking include; Carbon 14 Validity, Nuclear Usage in the future, and What will future fuels look like. In all these assignments students are given data, not answers promoting Critical Thinking. They will have to form conclusions that are scientifically valid given their research and data. Critical Thinking is key to this course and developing scientific logic, students are constantly challenged to think beyond the given facts and postulates and see if they appear to be applicable in each research area in the course. One such area in this course is molecular bonding and the bond types that can occur and change the structure of the molecule. Students must use a computer model to examine the possible molecular bonding of several compounds, ions, and isotopes, and determine which ones would be the most stable and which ones would most likely not exist in nature outside the Chemistry Lab.



**Quantitative Reasoning. Communication/Representation of Quantitative Information; Analysis of Quantitative Arguments; and Application of Quantitative Models**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of quantitative reasoning.*

Students are given data practice activities throughout the course in which they are to examine quantitative information and assess its relevance and analyze the data for cumulative conclusions. Examples include; measuring pH values and then determining conjugate acid base pairs; describing the difference between cis and a trans isomer; and whether a reaction will be spontaneous at a given temperature and pressure using Entropy. In each of these examples students have to gather and interpret data and use that data in Quantitative Reasoning Students use scientific equipment to quantitatively determine data. Triple beam and analytical balances as used to collect much of the data that the students analyze. In one example students have to determine the percent error from using a triple beam balance vs using an analytical balance. Students also experience Quantitative Reasoning as they use ashless filter paper to determine the amount of arsenic in the local tap water. Students have to develop Scientific charts and graphs constantly throughout the course which we can assess the effectiveness of the student's quantitative collection skills. One example of this and Application of Quantitative Models in this class includes calculation of and graphing zero, first, and second order reactions and then predicting the half -life of the reactions.

**Personal & Social Responsibility. Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global**

*In this box, provide a narrative that explains how the proposed course addresses **2** of the components of personal & social responsibility.*

Students are asked to ethically reason on scientific issues on both local and global levels. The mix of science and the people that both formulate and use the science is experienced by the students as they develop intercultural reasoning and intercultural differences. Some examples include calculation of their own CO2 print on the environment. Learning validity and value of a resource has become a major part of teaching personal and social responsibility in today's social media world. In this class we look at claims that are made and look at the validity to determine if it is science research based or merely opinion. This valuable part of the class not only educates the students about fact vs theory, it gives them more responsibility as they go on to become scientists, or even businessmen whose statements about science need to be valid and not merely opinion. Students have to collaborate and use teamwork in the labs as the course data is often synthesized for the total research data to be relevant. Our College gets several international students and we team students from different cultures together to allow each one to learn from the other, and appreciate the differences that they have. Another good example of this is when the data is aggregated from the entire class and they look at mean values and not just individual values. The diversity of how to handle civic issues and world concerns is a vital area for the course and students have the effects of science, but also have to look at the effect of the research on people and society. Looking at how past scientist dealt with nuclear waste gives our students a great insight into their personal and social responsibility as scientists, as one assignment called, "What I would do different" looks directly at personal and social responsibility.

#### **D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

<https://www.mesalands.edu/wp-content/uploads/2020/01/SLAC-Annual-Report-2018-19-Final.pdf>

This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).

AG MB

**Date**

Mar 30 2021

## Upload Assessment

**Completed** - Mar 30 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

### [CHEM1216C Sample Assessment](#)

**Filename:** CHEM1216C\_Sample\_Assessment.pdf **Size:** 58.0 kB

## Upload Rubric

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

# Application: 0000001512

Julia Deisler - julia.deisler@sfcc.edu  
NM General Education Curriculum

### Summary

**ID:** 0000001512

**Status:** Under Review

**Last submitted:** Mar 29 2021 09:43 PM (MDT)

## Application Form

**Completed** - Mar 29 2021

# Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout

the course.

### Contact Information

Name	Shuli Lamden
Title	Dept. Co-Chair
Phone	505-428-1336
Email	<a href="mailto:shuli.lamden@sfcc.edu">shuli.lamden@sfcc.edu</a>

### Submitting Institution

Name of HEI	Santa Fe Community Colleg
Submitting Department	English, Reading, and Speech

### Chief Academic Officer

Name	Margaret Peters
Email	<a href="mailto:margaret.peters@sfcc.edu">margaret.peters@sfcc.edu</a>

### Registrar

Name	Kathleen Sena
Email	<a href="mailto:kathleen.sena@sfcc.edu">kathleen.sena@sfcc.edu</a>

### Is this application for your entire system (ENMU, NMSU, & UNM)?

No

### Institutional Course Information

Prefix	COMM
Number	2120
Title	Interpersonal Communication
Number of credits	3

**Was this course previously part of the New Mexico General Education curriculum?**

Yes

**Co-requisite Course**

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)

**New Mexico Common Course Information**

Prefix	COMM
Number	2120
Name	Interpersonal Communication

**A. Content Area and Essential Skills**

**To which area should this course be added?**

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Communications - Communication, Critical Thinking, Information & Digital Literacy

## B. Learning Outcomes

---

**List all common course student learning outcomes for the course.**

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

1. Define and describe basic interpersonal communication terms and concepts
2. Identify and analyze interpersonal communication across a variety of personal and professional contexts in both face-to-face and mediated forms.
3. Identify and demonstrate a variety of skills that will enhance interpersonal communication
4. Analyze a variety of purposes of and goals in interpersonal communication interactions
5. Recognize diversity and ethical considerations in interpersonal interactions.

---

### **Institution-specific Student Learning Outcomes**

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

NA

---

## C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

**Communication. Genre and Medium Awareness, Application and Versatility; Strategies for Understanding and Evaluating Messages; and Evaluation and Production of Arguments.**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of communication.*

Genre and Medium Awareness, Application, and Versatility

In weekly reading, writing, and discussion assignments, students learn about the four types of interpersonal relationships (romantic, family, friendships, workplace); how to determine the most appropriate medium for communicating particular messages (online, face-to-face, phone); how to identify and interpret the nuances of the verbal and nonverbal codes used to convey those messages; and how to identify and accommodate the pivotal role that perception plays in each interpersonal interaction.

In addition to completing reading and writing assignments, students view films, documentaries, TED Talks, and other recorded presentations to develop the ability to identify, describe, and evaluate complex interpersonal interactions.

Strategies for Understanding and Evaluating Messages

Students practice collaborative and respectful verbal communication by participating in group and class discussions. They respond to oral presentations and/or online discussion posts of students from different cultures, races, ethnicities, religions, sexes, and gender identities to better understand and empathize with their points of view. Students read and respond to current research in the field of Communication Studies, demonstrate their understanding of significant concepts involved in the communication process (perception, encoding and decoding messages, verbal and nonverbal codes), and on how the research findings agree or disagree with their individual experiences.

Evaluation and Production of Arguments

Students demonstrate understanding of course content and evaluate its relevance to their own behavior and relationships through a variety of writing assignments, quizzes, and discussions. For example, they might describe and analyze the interactions of characters in a film, considering the impacts on interpersonal relationships of self-concept, self-esteem, gender norms, and verbal and nonverbal codes. Or students might describe a personal conflict and apply Wilmot & Hockers's conflict management strategies to better understand its nature; they might implement Jack Gibbs' supportive language categories and use a problem-solving plan to develop a proposal for a better resolution.



**Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.**

*In this box, provide a narrative that explains how the proposed course addresses **all** of the components of critical thinking.*

**Problem Setting**

In writing and discussions, students reflect upon course concepts relevant to forming and maintaining relationships and apply them to their own social and workplace relationships. Students examine and analyze their own behavior, assess their communication competency, develop greater self-awareness, and identify communication goals they would like to set for themselves.

In more summative and formal writing assignments that require analysis and synthesis of course concepts, students identify a central focus, thesis, problem, or hypothesis. For example, assignments might require that students use George Herbert Mead's theory of "self-awareness," C. Cooley's "looking-glass self", or E. T. Higgins' self-discrepancy theory, to examine the impacts of self-concept, self-esteem and gender norms in forming and maintaining interpersonal relationships. Or students might use the work of Wilmot & Hocker to examine the dynamics of conflict in a personal altercation and the work of Jack Gibbs to develop a more supportive communication style as part of a plan for a better outcome.

**Evidence Acquisition**

Students read current research in Communication Studies and watch short documentaries and video presentations on topics such as the roles culture, race, sex, gender identity, ethnicity, religion and past experiences play in the perception process; the importance of accurately encoding and decoding messages in the communication process; and the forming and maintaining of healthy social and workplace relationships, including the resolution of conflicts when they arise.

**Evidence Evaluation:**

In writing tasks such as chapter response logs, discussion posts, and formal analysis projects, students explore research presented in their textbook, in the SFCC data bases, and on the Internet. They evaluate all sources using the SFCC Library's evaluation tool, which focuses on currency, relevance, authority, accuracy, and purpose.

**Reasoning/Conclusion**

Through routine assignments such as graded group discussions, chapter response logs, quizzes, and analytical reports, students identify the established traits of competent interpersonal communication, and they identify biases in their own and others' perceptions that result from and perpetuate stereotypes, prejudices, polarized thinking, the confusion between fact and inference, and other basic fallacies in critical thinking.

---

**Information & Digital Literacy. *Authority and Value of Information; Digital Literacy; Information Structure; and Research as Inquiry***

*In this box, provide a narrative that explains how the proposed course addresses 3 of the components of digital literacy.*

**Authority and Value of Information**

Students use the SFCC Library's tool for assessing currency, relevance, authority, accuracy, and purpose. They apply these elements to each source they choose to use in discussion and in analytical writing. They are evaluated on how successfully they integrate source material into their thinking/writing/analyses.

**Digital Literacy**

Students access digital content in films, documentaries, TED Talks, and other recorded presentations to enrich their contributions to group discussions during the semester. They create and/or share digital content inside their online discussions by linking or embedding images, articles, podcasts, and videos.

**Research as Inquiry**

Students identify a focus for one or more formal writing projects and gather source material for them. For example, the projects might include observing interpersonal relationships in a film and evaluating the impacts of gender expectations and the use of verbal and nonverbal codes on relationships. Or the projects might include the exploration of a personal conflict that involves understanding the dynamics of power in relationships and the application of effective conflict management styles in redesigning a more satisfying resolution.

#### D. Assessment Plan (Must be on file with HED by August 1, 2019)

Link to Institution's General Education Assessment Plan

<https://www.sfcc.edu/54536-2/>

This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).



Date

Mar 29 2021

## Upload Assessment

Completed - Mar 29 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

### [COMM 2120 Critical Thinking Assignment](#)

Filename: COMM\_2120\_Critical\_Thinking\_Assignment\_.pdf Size: 33.5 kB

## Upload Rubric

Completed - Mar 29 2021

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

### [COMM 2120 Critical Thinking Rubric](#)

Filename: COMM\_2120\_Critical\_Thinking\_Rubric\_.pdf Size: 140.3 kB

**Application: 0000001502**

## Summary

**ID:** 0000001502

**Status:** Under Review

**Last submitted:** Mar 29 2021 09:40 PM (MDT)

## Application Form

**Completed** - Mar 29 2021

## Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

### Contact Information

Name	Shuli Lamden
Title	Dept. Co-Chair
Phone	505 428 1336
Email	<a href="mailto:shuli.lamden@sfcc.edu">shuli.lamden@sfcc.edu</a>

### Submitting Institution

Name of HEI	Santa Fe Community Colleg
Submitting Department	English, Reading, and Speech

### Chief Academic Officer

Name	Margaret Peters
Email	<a href="mailto:margaret.peters@sfcc.edu">margaret.peters@sfcc.edu</a>

## Registrar

Name	Kathleen Sena
Email	<a href="mailto:kathleen.sena@sfcc.edu">kathleen.sena@sfcc.edu</a>

### Is this application for your entire system (ENMU, NMSU, & UNM)?

No

## Institutional Course Information

Prefix	COMM
Number	1130
Title	Public Speaking
Number of credits	3

### Was this course previously part of the New Mexico General Education curriculum?

Yes

## Co-requisite Course

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)

## New Mexico Common Course Information

Prefix	COMM
Number	1130
Name	Public Speaking

### A. Content Area and Essential Skills

#### To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Communications - Communication, Critical Thinking, Information & Digital Literacy

### B. Learning Outcomes

#### List all common course student learning outcomes for the course.

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

1. Demonstrate effective speech preparation.
2. Demonstrate effective speech delivery through use of language, nonverbal elements and the creation of presentation aids.
3. Analyze a potential audience and tailor a speech to that audience.
4. Evaluate presentations according to specific criteria.
5. Explain common propaganda techniques and logical fallacies, and identify them in the speeches of others.
6. Recognize diversity and ethical considerations in public speaking.

## Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

NA

---

### C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---



**Communication. Genre and Medium Awareness, Application and Versatility; Strategies for Understanding and Evaluating Messages; and Evaluation and Production of Arguments.**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of communication.*

Genre and medium awareness: In regular reading, watching clips, and discussion assignments, students analyze various genres and media communications including but not limited to exemplars and personal presentations of radio interviews, panel speeches, impromptu, narrative, demonstrative, commemorative, informative and persuasive speeches.

Strategies for Understanding and Evaluating Messages: Students practice collaborative and respectful verbal communication by participating in large and small group discussions of diverse speeches. Through quizzes, class discussions, and written responses to readings, students demonstrate understanding of main ideas and supporting details, as well as analyze the purpose, audience, assumptions, types of support, and overall effectiveness of various genres and media of communications.

Evaluation and Production of Arguments: Students develop and present a minimum of five speeches, including two speeches that are supported by correctly documented college-level research. Each speech demonstrates a primary purpose (e.g., persuasive, informative), is appropriately organized for the particular genre of the assignment and the specific audience for which it is prepared, and employs clear grammatical conventions and sentence structure. Drafting, editing, revising, and presentation processes are incorporated into the class.

**Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of critical thinking.*

Problem Setting: Speech assignments are sequenced and scaffolded so that students follow specific steps in analyzing the audience, occasion, and topic in order to determine the primary purpose of each speech. Students then demonstrate a primary purpose by explicitly or implicitly identifying in each speech a perspective, problem, thesis, or hypothesis.

Evidence Acquisition: Students are required to participate in at least one research-based library education activity facilitated by an SFCC instructional librarian, during which time they are introduced to various types of sources available online and in print. Follow-up assignments include extensive outlines and annotated bibliographies for the informative and persuasive speeches

Evidence Evaluation: Through reading, lectures, and quizzes, students identify fallacies and underlying assumptions within speeches created for various rhetorical situations, and they evaluate sources for their credibility and applicability to the question or purpose at hand. Students create an annotated bibliography to demonstrate evaluation of sources based on their currency, reliability, authority, accuracy, and purpose.

Reasoning/Conclusion: Each speech requires students to create an effective conclusion. In their informative and persuasive speeches, those conclusions must be based upon credible and relevant evidence and the connections among that evidence that relates to the speech's central purpose, thus arriving at conclusions supported by both inductive and deductive reasoning.

For the Persuasive Speech, the instructor not only grades student work according to the stated guidelines, but also uses the departmental Critical Thinking ESO rubric to score each student's speech for learning assessment purposes.

**Information & Digital Literacy. *Authority and Value of Information; Digital Literacy; Information Structure; and Research as Inquiry***

*In this box, provide a narrative that explains how the proposed course addresses **3** of the components of digital literacy.*

Authority and Value of Information: Students are required to participate in at least one research-based library education activity facilitated by an SFCC instructional librarian, during which time they are introduced to various types of sources available on-line and in print. Students create an annotated bibliography to demonstrate evaluation of sources on their currency, reliability, authority, accuracy, and purpose.

Digital Literacy and Information Structure: Research assignments require students to use the library's database and other electronic resources, such as e-books and Films on Demand. Students incorporate sources appropriately into their own speeches, documenting sources in MLA style.

Research as Inquiry: Two major projects require that students engage in an iterative process of inquiry that defines a problem or question and uses research to generate a reasonable solution or answer. (See attached sample assignment.)

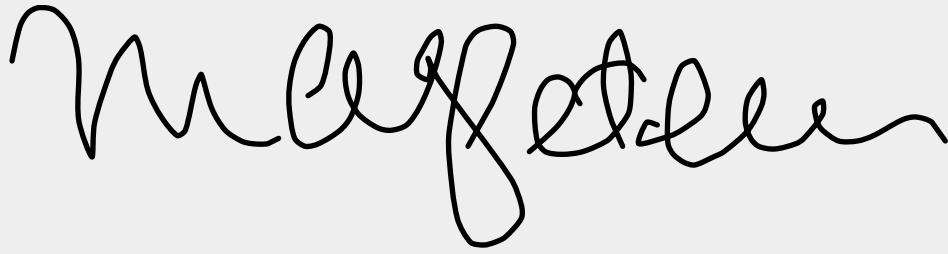
---

**D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

<https://www.sfcc.edu/54536-2/>

This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).



**Date**

Mar 29 2021

## Upload Assessment

**Completed** - Mar 29 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

### [COMM 1130 Persuasive Speech Assignment and Grading Sheet](#)

**Filename:** COMM\_1130\_Persuasive\_Speech\_Assignm\_bUePg7v.pdf **Size:** 26.1 kB

## Upload Rubric

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

# Application: 0000001493

James Scott - james.scott@nmt.edu  
NM General Education Curriculum

### Summary

**ID:** 0000001493

**Status:** Under Review

**Last submitted:** Mar 29 2021 05:21 PM (MDT)

## Application Form

# Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.

- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

### Contact Information

Name	Christopher ChoGlueck
Title	Assistant Professor Of Ethics
Phone	575-835-5401
Email	<a href="mailto:christopher.choglueck@nmt.edu">christopher.choglueck@nmt.edu</a>

### Submitting Institution

Name of HEI	New Mexico Institute of Mining and Technology
Submitting Department	Department of Communication, Liberal arts and Social Sciences

### Chief Academic Officer

Name	Dr. Steve Simpson
Email	<a href="mailto:steve.simpson@nmt.edu">steve.simpson@nmt.edu</a>

### Registrar

Name	James Scott
Email	<a href="mailto:james.scott@nmt.edu">james.scott@nmt.edu</a>

### Is this application for your entire system (ENMU, NMSU, & UNM)?

(No response)

## Institutional Course Information

Prefix	PHIL
Number	342
Title	Philosophy of Bioethics
Number of credits	3

## Was this course previously part of the New Mexico General Education curriculum?

No

## Co-requisite Course

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)

## New Mexico Common Course Information

Prefix	(No response)
Number	(No response)
Name	(No response)

## A. Content Area and Essential Skills

## To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Humanities - Information & Digital Literacy, Critical Thinking, Personal & Social Responsibility

## B. Learning Outcomes

### List all common course student learning outcomes for the course.

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

PHIL 2120. Biomedical Ethics

### Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

(from the HED Catalog for PHIL 2120)

1. Identify strengths and weaknesses of various ethical theories and conceptions of rights.
2. Apply various ethical theories and conceptions of rights to current issues within biomedical ethics.
3. Summarize and examine various positions and arguments in current issues within biomedical ethics



## C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

***Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.***

*In this box, provide a narrative that explains how the proposed course addresses all of the components of critical thinking.*

As a course in practical philosophy, students will develop their ability to reason critically about bioethics in real-world cases. This course is suited both for students training in profession careers in biomedicine and related health fields as well as for those more generally interested in ethical issues involving drugs, medical devices, genetics, and other related technologies. Critical reasoning skills are taught through skills workshops. In a skills workshop in the beginning of the semester, students are learned about how to form arguments, particularly how to use evidence to support judgments about ethical claims. I introduce them to logical criteria for evaluating the validity and probable truth of arguments as well as logical fallacies commonly committed. Throughout the semester, we have fallacies of the day that arise in our class readings or discussions, which cover a variety of contemporary topics, including sponsorship bias, patent rights, designer babies, racial health disparities, safe sex, reproductive justice, Indigenous peoples' health, and universal health care. Special emphasis is placed on intellectual humility, open-minded engagement, charitable reading, and respectful dialogue.

To enable evidence evaluation and reasoning, students are introduced to different ethical frameworks, including liberalism, egalitarianism, utilitarianism, and virtue ethics. Students practice applying these by responding to 2 case studies, where a prompt is given a week in advance. They must (1) take a stance on the ethics of the situation, including permissibility and proposed actions; (2) provide grounds for that position, with special attention to ethical frameworks and issues in class; and (3) discuss any strengths and weaknesses of their position. Students must delineate what any specific ethical problems as well as why they are problems, such as the lack of informed consent and conditions for providing it in the special case of clinical trials in prisons. Furthermore, the case studies prompt students to think about how to improve the situation, requiring them to evaluate the evidence of different options for amelioration and to defend any that are consistent with their moral assessment.

---

***Personal & Social Responsibility. Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global***

*In this box, provide a narrative that explains how the proposed course addresses 2 of the components of personal & social responsibility.*

Directly aimed at improving their ethical reasoning, this course challenges students to reflect on current bioethical issues in medical research & practice, involving different participants and different value judgments. Students explore clinical ethics, including doctor-patient relations, medical decision-making, and Aristotelean and Confucian ethics. In addition, we examine ethical issues in biotechnology involving pharmaceuticals and genomics and in health policy involving public health and justice in medicine. The content of this course is explicitly oriented toward different aspects of ethical reasoning, including both personal responsibility (i.e., moral conscience and integrity) and social responsibility (e.g., uneven impacts of different groups, democratic processes of decision making).

To facilitate students' intercultural reasoning, the class exposes them to a wide variety of ethical issues where they must relate their personal perspective to larger issues of professional responsibility and social justice. In the first part of class, students are introduced to the major ethical frameworks of deontology, consequentialism, and then virtue ethics, all using current issue in health policy and technology. For instance, to introduce the students to liberalism, we discuss the public health protections implemented for the COVID-19 pandemic and the debates that ensued over surveillance, mask mandates, and vaccines. In part II of the class, we focus on the ethics of research, beginning with the codes for Responsible Conduct of Research. We then contrast human and non-human experiments and examine the different biases that enter research methodology, such as sponsorship bias.

In part III, we turn to bioethical issues in clinics, involving doctor-patient relations. Students unpack different ideals of "the good doctor" and interrogate the responsibilities of healthcare providers more generally. Then, we look at the rights of patients, with special attention to disability rights, religious liberty, reproductive rights, and children's rights. In part IV, we conclude with several weeks on ethics related to biotech and health policy making. This includes genetic engineering (human, non-human, and agricultural), pharmaceutical regulation, and abortion and contraception. The final week of class focuses on public health ethics, such as healthcare for immigrants and vaccination hesitancy, followed by an ethical topic chosen by the students.

**Information & Digital Literacy. Authority and Value of Information; Digital Literacy; Information Structure; and Research as Inquiry**

*In this box, provide a narrative that explains how the proposed course addresses 3 of the components of digital literacy.*

To facilitate students' informational and digital literacy, this course culminates in a research project that involves both in-depth scholarly research as well as a multimedia presentation. Each student researches and presents a thorough case study of a contemporary ethical issue of their choosing, related to course themes. Their analyses must include the following elements: (1) clarify a pressing contemporary ethical issue related to bioethics; (2) present a proposal for resolving the ethical issue or take a critical stance toward the policy/technology; (3) defend the proposal or stance, using ethical justifications and scientific literature; and (4) present at least 2 strong objections with a response to each.

Students must engage in an iterative research process that also recognizes the value of information as distinction for its authoritativeness. Students typically engage with both philosophical and scientific sources, including at least 4 peer-reviewed articles or books. They first submit a 1-page proposal describing the case study, the ethical issue(s) at hand, and their preliminary plans for research and (virtual) presentation. After conducting that research, students prepare and make a virtual presentation of their case study involving multimedia (such as a screencast of slides, a podcast, an explainer video, an infographic, etc.). Presentations will occur virtually during the last week of classes, with a Q/A. Students then write a final report, including (1) a summary of their presentation, and (2) an annotated bibliography of their scholarly sources (2-3 additional pages), due finals week.

Special emphasis is placed on students' abilities to utilize information structures. This exercise facilitates students' abilities to conduct independent research on an issue of personal interest, to think about how ethical issues relate to concrete cases, and to work toward contributing to scholarly conversations. The professor grade presentations in terms of clarity of argument and presentation quality (including creativity, design, and engagement). The summary and bibliography are graded for clarity and completeness (including the 4 elements above).

#### **D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

<https://www.nmt.edu/academicaffairs/assessment/gened.php>

**This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).**

A large, stylized handwritten signature in black ink, consisting of several loops and a long horizontal stroke extending to the right.

**Date**

Mar 26 2021

## **Upload Assessment**

**Completed** - Mar 26 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

## [PHIL 342 assessment CS](#)

**Filename:** PHIL\_342\_assessment\_CS.pdf **Size:** 80.8 kB

## Upload Rubric

**Completed** - Mar 26 2021

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

## [PHIL 342 Grading Rubric CS](#)

**Filename:** PHIL\_342\_Grading\_Rubric\_CS.pdf **Size:** 74.3 kB

## Application: 0000001470

Robert Moore - Robert.Moore@rm01.enmuros.cc.nm.us  
NM General Education Curriculum

### Summary

**ID:** 0000001470

**Status:** Under Review

**Last submitted:** Mar 24 2021 03:04 PM (MDT)

## Application Form

**Completed** - Mar 24 2021

## Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning

4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

### Contact Information

Name	Robert Moore
Title	Assistant VP
Phone	5756247001
Email	<a href="mailto:robert.moore@roswell.enmu.edu">robert.moore@roswell.enmu.edu</a>

### Submitting Institution

Name of HEI	ENMU-Roswell
Submitting Department	Humanities

### Chief Academic Officer

Name	Annemarie Oldfield
Email	<a href="mailto:annemarie.oldfield@roswell.enmu.edu">annemarie.oldfield@roswell.enmu.edu</a>

### Registrar

Name	Linda Neel
Email	<a href="mailto:linda.neel@roswell.enmu.edu">linda.neel@roswell.enmu.edu</a>

### Is this application for your entire system (ENMU, NMSU, & UNM)?

No

### Institutional Course Information

Prefix	PHIL
Number	1115
Title	Introduction to Philosophy
Number of credits	3



Was this course previously part of the New Mexico General Education curriculum?

Yes

Co-requisite Course

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)

New Mexico Common Course Information

Prefix	PHIL
Number	1115
Name	Introduction to Philosophy

A. Content Area and Essential Skills

To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Humanities - Information & Digital Literacy, Critical Thinking, Personal & Social Responsibility

B. Learning Outcomes

**List all common course student learning outcomes for the course.**

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

1. Comprehend and differentiate between various philosophical approaches to questions within fields such as metaphysics, epistemology, ethics, and aesthetics.
2. Critically evaluate various philosophical arguments and positions.

**Institution-specific Student Learning Outcomes**

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

NA

**C. Narrative**

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

**Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.**

*In this box, provide a narrative that explains how the proposed course addresses **all** of the components of critical thinking.*

[\*Problem Setting:] During the semester, students submit multiple types of writing, including reflective documents, response essays, and analytical research papers; they participate in discussions nearly each class where they must determine and tackle a particular problem or issue the reading presents; they offer presentations, work in small groups to explore and present findings, and share discoveries informally with classmates; and they work both individually and in small groups on creative projects (like parsing real world conflicts such as racism within a particular paradigm such as Kantian or Marxist ideologies). Students also practice formal annotation, which requires them to reflect specifically and thoughtfully on each assigned reading.

[Evidence Acquisition:] Students access and consider evidence available through their assigned course texts, the library's general collection, and the University's numerous databases (e.g., EBSCO, Academic Search Complete, ProQuest, JSTOR, etc.), and faculty-provided material to support their observations, analyses, and arguments forwarded in class discussion and on assignments. Several assignments, like their reflection essays, are designed to enhance students' research and discovery skills and reward effective use of outside sources. As primary ways to think through evidence (proofs), we discuss Logic, Metaphysics, Epistemology, Free Will, Ethics, Politics, Stoicism and Existentialism, and the existence of God, all of which contribute to a discussion of an over-arching question, "What can be known and argued via logic and reason?"

[\*Evidence Evaluation:] Discussions compel students to respond to primary texts, other students' positions, as well as professional critiques / reviews; the discussions and written responses model techniques of textual and cultural evaluation. For many of the statements students make (in discussions, for example), we emphasize currency, relevance, authority, accuracy, and purpose. Students are working on creating their own credible arguments; many assignments make conscious the techniques of evaluation necessary to assure thoughtful and hearty presentation (focused / evaluated annotation of texts is an example). Presentations are also given on subjects such as Aesthetics, the Enlightenment, and Significant Thinkers (e.g. Freud, Darwin, Einstein) and the philosophical preludes and premises that underlie their ideas.

[\*Reasoning/Conclusion(s):] Students arrive at defensible, relevant, and interesting conclusions based on sound and creative premises in their essays, presentations, short assignments, projects, and journaling / annotation. They are guided to ask questions, posit answers, and support their answers through different strategies of deductive reasoning and Socratic teaching. Repeated exposure to primary and secondary sources allow students to engage examples of good and poor reasoning, logical fallacies, misguided conclusions, affirming organization, and general patterns of argument valuable for college-level

academic discourse. Student learning is assessed via periodic quizzes, writing assignments, frequent less-formal written responses (for example, the “question of the day” the end of the discussion of Plato’s dialogue “Euthyphro” asks the students if they would help their dad get away with manslaughter or if they would turn him in).

**Personal & Social Responsibility. *Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global***

*In this box, provide a narrative that explains how the proposed course addresses 2 of the components of personal & social responsibility.*

[\*Intercultural Reasoning and Intercultural Competence:] During the semesters, through readings, research, and discussions, students encounter variety of socio-cultural issues in the literature across time periods and contemporary culture; examine how past socio-cultural philosophies have informed the present by comparing and contrasting contemporary dilemmas with historical concerns; and learn to appreciate and approach differing philosophical perspectives across generations. Student progress is measured in part on their ability to recognize differing philosophical schools, philosophers, and practical manifestations of ethical thinking and reflect their understanding in essays, projects, and presentations; many of the assignments ask them to engage, react to, and otherwise consider issues most relevant to ethical and social responsibility—such as law and order, personal moral and religious attitudes, community and identity mores, and economic justice / disparities—including through their annotation / journaling, reflective essays, and projects.

[\*Civic Knowledge and Engagement—Local and Global:] Across the semester, students tackle contemporary and past socio-cultural and political issues and investigate them through philosophical paradigms; these paradigms are anchored in practical, real-world examples and creative problem solving. We might consider, for example, how ancient thinking informs, perpetuates, and paralyzes modern political structures (local, national). Students explore the local and global contexts surrounding the creation, distribution, and context of their assigned primary sources—drawing connections across diverse points of interest from politics to environmental degradation, personal choice to national culture wars (one project, for example, asks students to answer the question, when can you break the law and be justified?). Students strive to contextualize academic discourses with global movements, structures,

and attitudes. Nearly every primary text embraces the conversation of civic responsibility either as a critique, a model, or an investigation of communities in action; the texts provide the leaping-off point for conversations about how the individual is in conflict with, correspondent to, or estranged from civic duties, responsibilities, and obligations; their annotation and essays allow them to reflect and sharpen their understanding. Discussion provide students ample exposure to and practice engaging with ideas and beliefs other than their own.

---

**Information & Digital Literacy. *Authority and Value of Information; Digital Literacy; Information Structure; and Research as Inquiry***

*In this box, provide a narrative that explains how the proposed course addresses **3** of the components of digital literacy.*

[\*Authority and Value of Information:] Students learn and execute the skills necessary to evaluate the credibility of sources prior to including them in assignments; original texts, edited material (including standard textbooks), and peer-reviewed / published opinions provide nearly all the assessed and included information.

[\*Digital Literacy / Information Structures:] Students master Blackboard both to initiate and participate in several course discussions, communicate with their classmates and instructor, check their grades, and receive course-wide and institutional updates. Students engage other important digital tools, including email, PowerPoint, web browsers, and often other platforms like Instagram for communication, research, and production of artifacts. Students have access to tutoring services as well as a wealth of online tutorials and services available to assist their academic progress (Youtube videos, tutorials, Purdue Owl, etc.). These digital tools manifest in their presentations, their research for essays, and their formal explorations of topics and posed questions.

[\*Information Structures:] Students embrace the library, both physical and virtually, as an enormous campus resources to facilitate and conduct research and investigation. They have access to and are required to interact with the library's digital resources, including e-Books, electronic articles, and electronic reference works, especially with the final essay but also their reflective work.

[\*Research as Inquiry:] Assignments and academic interaction in the classroom emphasize a student's ability to initiate, conduct, and arrive at conclusions through a variety of research methods. The course

teaches students, first, to ask good questions and then to explore through personal and academic channels various forms of knowledge that assist them in drawing a conclusion. In the final essay, for example, they are asked to explore a major philosophical thinker's ideas and contrast their own experience and situation. Students learn to supplement their observations with an array of support, including quotations from source material, professional commentary integrated into their writing (essays, annotations, reflections, projects), and other research. Assignments challenge students to appreciate their role in the knowledge-making adventure of academic, scholarly investigation through the process of asking questions and seeking solutions that are well-supported and engaging. Sometimes, they answer questions the faculty member proposes; sometimes, they generate their own inquiry. Nearly every project or assignment requires students to embrace the "research as inquiry" model, but their shorter response essays especially ask them to encounter, research, and report back on a focused question.

---

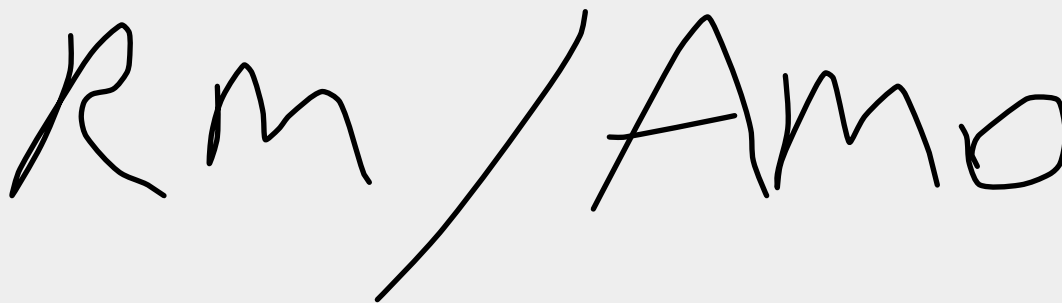
**D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

[https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan\\_ENMURoswell.pdf](https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan_ENMURoswell.pdf)

---

**This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).**

A handwritten signature in black ink, consisting of the letters 'Rm' followed by a diagonal slash and the letters 'Amo'.

---

**Date**

Mar 24 2021

# Upload Assessment

**Completed** - Mar 24 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

## [PHIL 1115 Assignment](#)

**Filename:** PHIL\_1115\_Assignment.pdf **Size:** 399.9 kB

# Upload Rubric

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

# Application: 0000001541

Jack McCaw - jack.mccaw@enmu.edu  
NM General Education Curriculum

## Summary

**ID:** 0000001541

**Status:** Under Review

**Last submitted:** Apr 2 2021 11:39 AM (MDT)

# Application Form

**Completed** - Apr 2 2021

# Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy

2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

### Contact Information

Name	Jack McCaw
Title	Department Chair
Phone	5753151152
Email	<a href="mailto:jack.mccaw@enmu.edu">jack.mccaw@enmu.edu</a>



### Submitting Institution

Name of HEI	Eastern New Mexico University - Ruidoso
Submitting Department	Math and Science

### Chief Academic Officer

Name	Coda Omness
Email	<a href="mailto:Coda.Omness@enmu.edu">Coda.Omness@enmu.edu</a>

### Registrar

Name	Amy Means
Email	Amy.Means.enmu.edu

### Is this application for your entire system (ENMU, NMSU, & UNM)?

No
----

### Institutional Course Information

Prefix	BIOL
Number	2210
Title	Human Anatomy and Physiology I
Number of credits	4

## Was this course previously part of the New Mexico General Education curriculum?

Yes

### Co-requisite Course

Prefix	BIOL
Number	2210L
Title (if applicable)	Human Anatomy and Physiology I Lab

### New Mexico Common Course Information

Prefix	BIOL
Number	2210
Name	Human Anatomy and Physiology I

### A. Content Area and Essential Skills

#### To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Science - Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning

### B. Learning Outcomes

**List all common course student learning outcomes for the course.**

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

1. Describe and apply anatomical terminology.
2. Describe multi cellular organization.
3. Distinguish and describe major tissue types.
4. Describe the structure and function of the integumentary system.
5. Describe the structure and function of the skeletal system.
6. Describe the structure and function of the muscular system.
7. Describe the structure and function of the nervous system.
8. Describe the structure and function of the special senses.
9. Define homeostasis and describe specific examples for the integumentary, skeletal, muscular, and nervous systems.

Lab SLOs

1. Apply the scientific method correctly.
2. Collect, analyze, and interpret scientific data.
3. Use laboratory equipment, such as a microscope, correctly and safely.
4. Analyze the structure of cells, cell membranes, and cell organelles with respect to their respective physiological roles.
5. Identify the anatomical components of human tissues, organs, and organ systems using prepared microscope slides, models, diagrams, illustrations, or cadaver specimens.
6. Describe the functional characteristics of human tissues, organs, and organ systems using prepared microscope slides, models, diagrams, illustrations, or cadaver specimens.
7. Analyze the physiological processes of the integumentary, skeletal, muscle, and nervous systems.

## Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

None

---

### C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

***Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.***

*In this box, provide a narrative that explains how the proposed course addresses all of the components of critical thinking.*

Students use critical thinking and scientific inquiry throughout both the lecture and laboratory in Anatomy and Physiology I. Students complete laboratory experiments where problems are identified, data is collected and evaluations, and conclusions are formed. Additionally, students complete case studies of real-world medical issues where they must use the knowledge from the course to identify the issue presented, gather information from the study, and make conclusions about the problem. These case studies are related to topics found in the lecture and laboratory, including cellular respiration and perfusion, thermoregulation, sight and hearing loss, integumentary infections, joint injuries, melanoma and skin cancers, defective organelles, osteoporosis, and other diseases of the nervous system. During the study of the integumentary system, students learn about decision-making in respect to malignant melanoma. Working in groups of 3 or 4, students are presented a case where they must read and identify the medical issue (problem setting) and answer a series of questions about the situation. As the case develops, students then engage in the process of collecting information about the disease in order to make informed decisions for the case, by placing themselves in the situation (evidence acquisition). Students then must decide proper course of action and treatment by answering questions (evidence evaluation). Finally, students evaluate the outcome of the case and form conclusions about the appropriateness of the chosen treatment from the actual patient and physician (reasoning/conclusion). Students are assessed by the completion and write-up of the case study.

**Quantitative Reasoning. Communication/Representation of Quantitative Information; Analysis of Quantitative Arguments; and Application of Quantitative Models**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of quantitative reasoning.*

Students practice quantitative reasoning skills in many laboratory activities and case studies in this course, as they apply knowledge to numerous real-world scenarios. Students develop, utilize, and interpret quantitative information in labs related to chemistry, mitosis and meiosis, the integumentary system, the skeletal system, and muscular system. Additionally, students complete case studies where quantitative information and graphs are used and interpreted to form conclusions. During the unit on cellular metabolism, students complete a case study designed for students to analyze the processes in cellular respiration. In this study, students analyze numerical data from a patient's metabolic lab reports where they look for anomalies that could be related to the patient's symptoms. Students organize this data in graphical and written form (representation of quantitative information). As the case proceeds, students make hypotheses about the causes behind the patient's symptoms using the data presented (analysis of quantitative information). By answering the questions of the case study, students then apply their knowledge of cellular respiration processes to deduce the cause of death in this patient (application of quantitative information). Students are assessed by the completion and write-up of the case study.

**Personal & Social Responsibility. *Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global***

*In this box, provide a narrative that explains how the proposed course addresses 2 of the components of personal & social responsibility.*

In this course, students identify the roles that lifestyle, including cultural norms and differences play in the role of health and disease. In classroom and group discussions and during the completion of case studies, students evaluate data about different diseases and pathological processes. This data consistently demonstrates differences between disease occurrence and overall health of different cultures, races, and socio-economic groups. Students reason how access to healthcare and resources play a very important role in overall health. Additionally, students investigate how choices for traditional medicine and natural/folk medicine play a role in healthcare decisions that differ between cultures. Discussion of the pros and cons of different types of healthcare systems and economic systems related to access are also important topics considered (intercultural reasoning and competence).

Students work collaboratively in both lecture and laboratory assignments throughout the course. Student groups are sometimes assigned and sometimes are student-driven and organized. Student groups decide on individual responsibilities and hold each other accountable in performing group tasks. In the laboratory, students often make measurements and complete dissections where they must work in teams. In one lab, students work collaboratively to make measurements of members of the class related to bone structure, height and weight. Students work in groups and share data to complete the exercise (collaboration and teamwork).

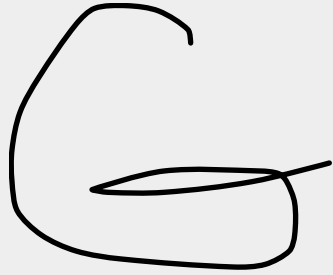
---

#### **D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

In Progress

This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).



#### Date

Apr 1 2021

## Upload Assessment

**Completed** - Apr 1 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

### [Melanoma Beach CS](#)

**Filename:** Melanoma\_Beach\_CS.pdf **Size:** 235.8 kB

## Upload Rubric

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

# Application: 0000001429

Robert Moore - Robert.Moore@rm01.enmuros.cc.nm.us  
NM General Education Curriculum

#### Summary

**ID:** 0000001429

**Status:** Under Review

**Last submitted:** Mar 16 2021 09:11 AM (MDT)

## Application Form



# Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.

- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

### Contact Information

Name	Robert Moore
Title	Assistant VP
Phone	5756247001
Email	<a href="mailto:robert.moore@roswell.enmu.edu">robert.moore@roswell.enmu.edu</a>

### Submitting Institution

Name of HEI	ENMU-Roswell
Submitting Department	Behavioral Science

### Chief Academic Officer

Name	Annemarie Oldfield
Email	<a href="mailto:annemarie.oldfield@roswell.enmu.edu">annemarie.oldfield@roswell.enmu.edu</a>

### Registrar

Name	Linda Neel
Email	<a href="mailto:linda.neel@roswell.enmu.edu">linda.neel@roswell.enmu.edu</a>

### Is this application for your entire system (ENMU, NMSU, & UNM)?

No

## Institutional Course Information

Prefix	ANTH
Number	1140
Title	Introduction to Cultural Anthropology
Number of credits	3

## Was this course previously part of the New Mexico General Education curriculum?

Yes

## Co-requisite Course

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)

## New Mexico Common Course Information

Prefix	ANTH
Number	1140
Name	Introduction to Cultural Anthropology

## A. Content Area and Essential Skills

## To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Social & Behavioral Sciences - Communication, Critical Thinking, Personal & Social Responsibility

## B. Learning Outcomes

**List all common course student learning outcomes for the course.**

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

1. Introduce students to the basic concepts and research methods of cultural anthropology as one of the disciplines of social science, including fundamental concepts, such as culture and society, which form the pillars of the discipline (e.g., cultural relativism, cultural persistence and change, world-view and enculturation).
2. Comprehend the importance of studying cultural anthropology.
3. Demonstrate knowledge of the practice of anthropological research in the modern world that is increasingly multicultural, transnational and globally interconnected (e.g., globalization and modern world system).
4. Demonstrate an awareness of how students' own cultures shape their experiences and the way they see the world, as well as help them understand and interact with other cultures.
5. Understand how beliefs, values and assumptions are influenced by culture, biology, history, economic, and social structures.
6. Gain a sense of relationship with people possessing different experiences from their own.
7. Gain a deeper understanding and appreciation for cultural anthropology as a broad discipline through learning about its practices, and differentiating cultural anthropology from other disciplines that study.

## Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

None

### C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

#### **Communication. Genre and Medium Awareness, Application and Versatility; Strategies for Understanding and Evaluating Messages; and Evaluation and Production of Arguments.**

*In this box, provide a narrative that explains how the proposed course addresses **all** of the components of communication.*

Genre and Medium Awareness, Application and Versatility:

The course presents core concepts and methods of cultural anthropology that are used to understand the ways in

which human beings organize and experience their lives through distinctive cultural practices. More specifically,

this course explores social and cultural differences and similarities around the world through a variety of topics

such as: language and communication, economics, ways of making a living, marriage and family, kinship and

descent, race, ethnicity, political organization, supernatural beliefs, sex and gender, and globalization.

Students demonstrate genre and medium awareness, application, and versatility through weekly discussions (both written and oral), which correspond to weekly reading/viewing and writing (current events and fieldwork journals) assignments, which relate to evaluating and critiquing videos that address the applicable/relevant cultural issues.

#### Strategies for Understanding and Evaluating Messages:

Students practice strategies for understanding and evaluating messages by the close and critical reading/viewing of assigned course materials, while also applying course content to anthropological issues. Students practice critical thinking skills (in conjunction to the application of course content) by providing evidence-based arguments and ideas about anthropological issues during the participation of class discussions and the completion of current event and fieldwork journals.

#### Evaluation and Production of Arguments:

Evaluation and production of arguments is demonstrated by students' applying anthropological concepts when engaging in class discussions and by the completion of targeted current event projects which guide them to critically examine videos/readings. Students are evaluated on the thoroughness of their responses during discussions and current event assignments. The current event assignments and class discussions are scaffolded to provide guidance for evaluating arguments, which in turn models best practices for the production of arguments.

### ***Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.***

*In this box, provide a narrative that explains how the proposed course addresses **all** of the components of critical thinking.*

Critical Thinking skills will be practiced by students in a variety of contexts, such as: class discussions, critical readings of assignment texts and/or viewing of assigned videos, current event projects, and final portfolio projects. Such assignments provide students with diverse opportunities to demonstrate their ability to develop and express their positions, gather evidence, evaluate evidence, and reach reasonable solutions.

#### Problem Setting:

Through the use of weekly class discussions and writing assignments, critical thinking is re-enforced

based on the close reading of assigned readings, as well as close viewing of critical videos. The discussions and written assignments require that students demonstrate their newly developed critical thinking skills as evidenced in the reasoned thinking used to evaluate others' arguments (discussions, readings, and videos), and in supporting their own positions on the topics presented.

#### Evidence Acquisition:

Students gather evidence through the careful reading of assigned texts and viewing of videos, while also evaluating the credibility of sources in weekly discussions and written assignments. Additionally, students are able to demonstrate mastery of content (i.e., the weekly reading/videos) during the class discussions and in their weekly written assignments. The weekly written assignments (current events and fieldwork journals) require that students gather information from credible sources, critique the information gathered, and properly cite their sources.

#### Evidence Evaluation:

Students evaluate their own (and others') positions during the class discussions. They analyze and evaluate the data gathered/reviewed in the weekly discussions and writing (current events and fieldwork journals) assignments, which assists them in drawing reasonable conclusions based on evidence.

#### Reasoning/Conclusion:

Students then explain their understanding of and solution for the problems addressed in class (focus on cultural inequalities with a solution-based lens). This focus on solutions is evidenced in their class discussions and current event assignments.

**Personal & Social Responsibility. Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global**

*In this box, provide a narrative that explains how the proposed course addresses 2 of the components of personal & social responsibility.*

#### Ethical Reasoning:

Ethical Reasoning is nurtured and developed by exploring topics from a variety of perspectives, cultures, traditions, and belief systems, with a focus on power dynamics, conflict, and systemic inequalities across a variety of intersectionality markers. The concepts of ethnocentrism and cultural relativism are introduced at the beginning of the course, but are revisited throughout the course in class discussions and assignments. Students also demonstrate their understanding of ethical reasoning in their class discussions and written assignments.

#### Civic Discourse

Class discussion promotes collaboration in examining a variety of perspectives and viewpoints, and in identifying and discussing social and ethical issues. Additionally, civic discourse is encouraged in identifying the connections between society, the individual, social/cultural artifacts and beliefs, and the natural world in class discussions and in class collaborative projects (like jigsaws). Students demonstrate their understanding of varied value systems in their class discussions and weekly writing assignments. Finally, students are guided through the process of engaging in civic discourse during their weekly discussions as evidenced thorough their participation in respectful civic dialogue that shares differing perspectives and recognizes that there are multiple valid responses to local and global issues. These abilities are evident in their initial response, as well as their subsequent responses (i.e. dialogue).

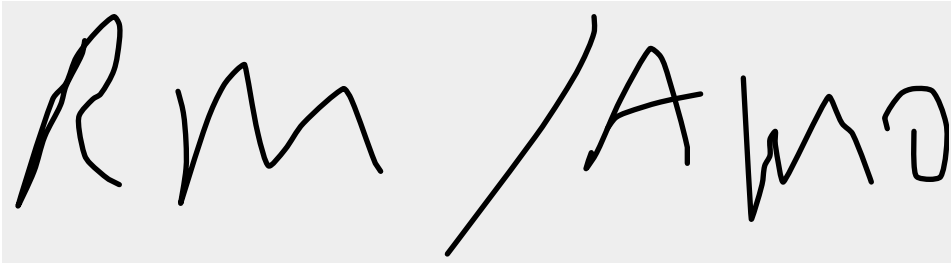
#### **D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

[https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan\\_ENMURoswell.pdf](https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan_ENMURoswell.pdf)



This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).

A handwritten signature in black ink, appearing to read "Rm / Amd", is displayed on a light gray background.

**Date**

Mar 16 2021

## Upload Assessment

**Completed** - Mar 16 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

[ANTH 1140 Current Event\\_Developed Fall 2020\\_with claims samples\(1\)](#)

**Filename:** ANTH\_1140\_Current\_Event\_Developed\_Fall\_mwePZiY.pdf **Size:** 294.0 kB

## Upload Rubric

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

# Application: 0000001438

Jack McCaw - jack.mccaw@enmu.edu  
NM General Education Curriculum

**Summary**

**ID:** 0000001438

**Status:** Under Review

**Last submitted:** Mar 20 2021 10:46 AM (MDT)

## Application Form

# Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.

- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

### Contact Information

Name	Jack McCaw
Title	(No response)
Phone	5753151152
Email	<a href="mailto:jack.mccaw@enmu.edu">jack.mccaw@enmu.edu</a>

### Submitting Institution

Name of HEI	Eastern New Mexico University - Ruidoso
Submitting Department	Math and Science

### Chief Academic Officer

Name	Coda Omness
Email	<a href="mailto:Coda.Omness@enmu.edu">Coda.Omness@enmu.edu</a>

### Registrar

Name	Amy Means
Email	<a href="mailto:Amy.Means@enmu.edu">Amy.Means@enmu.edu</a>

### Is this application for your entire system (ENMU, NMSU, & UNM)?

No

## Institutional Course Information

Prefix	CHEM
Number	1215
Title	General Chemistry I For STEM Majors
Number of credits	4

## Was this course previously part of the New Mexico General Education curriculum?

Yes

## Co-requisite Course

Prefix	CHEM
Number	1215 L
Title (if applicable)	General Chemistry I For STEM Majors Lab

## New Mexico Common Course Information

Prefix	CHEM
Number	1215
Name	General Chemistry I For STEM Majors

## A. Content Area and Essential Skills

## To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Science - Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning

## B. Learning Outcomes

**List all common course student learning outcomes for the course.**

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

1. Use dimensional analysis, the SI system of units and appropriate significant figures to solve quantitative calculations in science.
2. Explain the structure of atoms, isotopes and ions in terms of subatomic particles.
3. Understand the differences between physical and chemical changes to matter, and utilize the IUPAC system of nomenclature and knowledge of reaction types to describe chemical changes, predict products and represent the process as a balanced equation.
4. Apply the mole concept to amounts on a macroscopic and a microscopic level and use this to perform stoichiometric calculations including for reactions in solution, gases and thermochemistry.
5. Apply the gas laws and kinetic molecular theory to relate atomic level behavior to macroscopic properties.
6. Describe the energy conversions that occur in chemical reactions and state changes, relating heat of reaction to thermodynamic properties such as enthalpy and internal energy, and apply these principles to measure and calculate energy changes in reaction.
7. Use different bonding models to describe formation of compounds (ionic and covalent) and apply knowledge of electronic structure to determine molecular spatial arrangement and polarity.
8. Analyze how periodic properties (e.g. electronegativity, atomic and ionic radii, ionization energy, electron affinity, metallic character) and reactivity of elements results from electron configurations of atoms.

## Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

None

---

### C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

**Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of critical thinking.*

Students develop and use critical thinking throughout the lecture and lab portions of this course. While learning about atoms, molecules and bonding, chemical reactions, thermochemistry, and gas laws, students apply the scientific method to observe phenomenon, propose hypotheses, gather data through experimentation, and then form conclusions and present results in lab reports. Students work in groups of 2 or 3. When studying reaction types, for example, students perform experiments designed to demonstrate different chemical reaction types. Students write reactions and determine products based on predictions (problem setting). Then, students perform reactions and make observations which they record in their lab reports (evidence acquisition). In the post-lab write-up, students answer questions that require them to analyze the processes that they observed. Students evaluate the type of reactions that are occurring for each experiment, then write the reactions in final form (reasoning/conclusion). Student groups then compare their results with other student groups and identify any differences in their results or equations. If differences are found, they must decide what was done in error and explain it. Students are assessed through the completion of their lab reports and write-ups.

**Quantitative Reasoning. Communication/Representation of Quantitative Information; Analysis of Quantitative Arguments; and Application of Quantitative Models**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of quantitative reasoning.*

Students utilize and develop quantitative reasoning skills throughout the study of chemistry in both lab and lecture. Students learn to perform multistep calculations in both the metric and English system, as well as conversion between the two systems. Throughout the course, students write equations and graph data for many types of measurements. Students use graphs to represent data and complete regression analysis when studying gas laws. For the Boyle's Law assignment, students apply forces to gas in a syringe and measure pressure changes compared to volume in the syringe. For the Charles' Law assignment, students compare temperature changes and volume of the syringe. Students use electronic lab technology to gather data which they must then graph before analysis (communication/representation of quantitative data). Based on regression analysis, students find the mathematical relationships between pressure and volume, temperature and volume and temperature and pressure (analysis of quantitative arguments). Students then use the equations they have derived from experimentation to predict values for temperature, pressure, or volume when one or more parameters are changed (application of quantitative models). Students are assessed through lab reports which include calculations, observations, graphs, and conclusions.



**Personal & Social Responsibility. *Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global***

*In this box, provide a narrative that explains how the proposed course addresses 2 of the components of personal & social responsibility.*

Students practice ethical reasoning in chemistry by learning and practicing the scientific method in both lecture and laboratory experiences. Students discuss the importance of reliability and repeatability in science, as well as the detrimental effects of false claims and pseudo-science. In this course students discuss the ethics of certain scientific advancements, such as using chemicals as weapons, the effects of human processes on the environment, and how energy is obtained and utilized in both ethical and unethical ways in human society. Students have group discussions and classroom discussions, exploring the positives and negatives of a variety of points of view (ethical reasoning).

Students work collaboratively in both lecture and laboratory assignments throughout the course. Student groups are sometimes assigned and sometimes are student driven and organized. Student groups decide on individual responsibilities and hold each other accountable in performing group tasks. For example, students learn and practice using the scientific process to evaluate the claims of a variety of automobiles or manufacturing processes in reference to energy efficiency. After their evaluations are performed in their groups, students share their findings with the class, where they must explain why they find the models and claims ethical or not. In this process students learn the value of ethical and forthwith claims from advertisers and manufacturers (collaboration, teamwork and accountability).

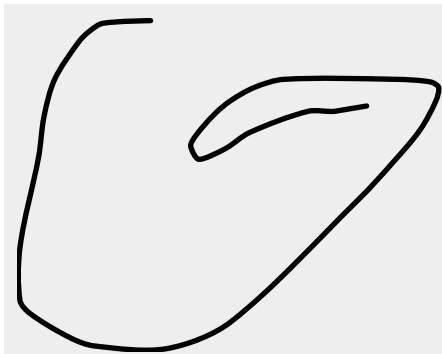
---

**D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

In Progress

This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).



**Date**

Mar 18 2021

## Upload Assessment

**Completed** - Mar 19 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

[Reaction Types\\_exp\\_16](#)

**Filename:** Reaction\_Types\_exp\_16.pdf **Size:** 956.0 kB

## Upload Rubric

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

# Application: 0000001519

Robert Moore - Robert.Moore@rm01.enmuros.cc.nm.us  
NM General Education Curriculum

**Summary**

**ID:** 0000001519

**Status:** Under Review

**Last submitted:** Mar 29 2021 02:51 PM (MDT)

# Application Form

Completed - Mar 29 2021

## Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

### Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

### Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

### Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.

- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

### Contact Information

Name	Robert Moore
Title	Assistant VP
Phone	5756247001
Email	<a href="mailto:robert.moore@roswell.enmu.edu">robert.moore@roswell.enmu.edu</a>

### Submitting Institution

Name of HEI	ENMU-Roswell
Submitting Department	Science

### Chief Academic Officer

Name	Annemarie Oldfield
Email	<a href="mailto:annemarie.oldfield@roswell.enmu.edu">annemarie.oldfield@roswell.enmu.edu</a>

### Registrar

Name	Linda Neel
Email	<a href="mailto:linda.neel@roswell.enmu.edu">linda.neel@roswell.enmu.edu</a>

### Is this application for your entire system (ENMU, NMSU, & UNM)?

No

## Institutional Course Information

Prefix	CHEM
Number	1215
Title	General Chemistry I for STEM Majors
Number of credits	3

## Was this course previously part of the New Mexico General Education curriculum?

Yes

## Co-requisite Course

Prefix	CHEM
Number	1215L
Title (if applicable)	General Chemistry I Lab for STEM Majors

## New Mexico Common Course Information

Prefix	CHEM
Number	1215
Name	General Chemistry I for STEM Majors Lecture + Lab

## A. Content Area and Essential Skills

## To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Science - Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning

## B. Learning Outcomes

### List all common course student learning outcomes for the course.

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

#### Lecture

1. Use dimensional analysis, the SI system of units and appropriate significant figures to solve quantitative calculations in science.
2. Explain the structure of atoms, isotopes and ions in terms of subatomic particles.
3. Understand the differences between physical and chemical changes to matter, and utilize the IUPAC system of nomenclature and knowledge of reaction types to describe chemical changes, predict products and represent the process as a balanced equation.
4. Apply the mole concept to amounts on a macroscopic and a microscopic level and use this to perform stoichiometric calculations including for reactions in solution, gases and thermochemistry.
5. Apply the gas laws and kinetic molecular theory to relate atomic level behavior to macroscopic properties.
6. Describe the energy conversions that occur in chemical reactions and state changes, relating heat of reaction to thermodynamic properties such as enthalpy and internal energy, and apply these principles to measure and calculate energy changes in reaction.
7. Use different bonding models to describe formation of compounds (ionic and covalent), and apply knowledge of electronic structure to determine molecular spatial arrangement and polarity.
8. Analyze how periodic properties (e.g. electronegativity, atomic and ionic radii, ionization energy, electron affinity, metallic character) and reactivity of elements results from electron configurations of atoms.

## Lab

1. Demonstrate and apply concepts associated with laboratory safety, including the possible consequences of not adhering to appropriate safety guidelines.
2. Demonstrate the computational skills needed to perform appropriate laboratory related calculations to include, but not be limited to determining the number of significant figures in numerical value with the correct units, solving problems using values represented in exponential notation, solving dimensional analysis problems, and manipulating mathematical formulas as needed to determine the value of a variable.
3. Perform laboratory observations (both qualitative and quantitative) using sensory experience and appropriate measurement instrumentation (both analog and digital).
4. Prepare solutions with an acceptable accuracy to a known concentration using appropriate glassware.
5. Master basic laboratory techniques including, but not limited to weighing samples (liquid and solid), determining sample volumes, measuring the temperature of samples, heating and cooling a sample or reaction mixture, decantation, filtration, and titration.
6. Demonstrate mastery in experimental techniques, such as pressure measurements, calorimetric measurements, and spectrophotometric measurements
7. Draw conclusions based on data and analyses from laboratory experiments.
8. Present experimental results in laboratory reports of appropriate length, style and depth, or through other modes as required.
9. Relate laboratory experimental observations, operations, calculations, and findings to theoretical concepts presented in the complementary lecture course.
10. Design experimental procedures to study chemical phenomena.

## Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

NA

## C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

### **Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.**

*In this box, provide a narrative that explains how the proposed course addresses **all** of the components of critical thinking.*

All essential skills are exercised during as an application of the scientific method in lecture and laboratory course. Students practice critical thinking skills in several contexts and assessments: discussions, viewing videos, reading assigned articles, coaching activities, laboratory exercises and formal quizzes/exams. Formative assessment occurs through coaching activities and class discussion. Summative assessment occurs with quizzes, exams and an oral presentation.

#### Problem Setting

Within lecture, students read articles or watch short videos after which they outline the key points and frame the problem. In the laboratory, students utilize the scientific method as a framework for problem solving. Students develop and investigate testable hypothesis using laboratory techniques. As a capstone assessment, students research an industrial or environmental problem and analyze the method used to address the problem.

#### Evidence Acquisition and Evaluation

In both lecture and laboratory students review data sets, graphs and tables and relate to known chemical principles. Students also generate graphs and tables based on given data sets. Students verify chemical principles using formulae. In the laboratory, students perform lab investigations and experiments. Each lab session requires students to practice careful observations, record data, make calculations and evaluate data. Students complete a lab report which requires compilation and organization of their



experimental data. While researching the capstone assessment, students evaluate and explain chemical methods used in industry or environmental practice.

#### Reasoning/Conclusion

Students practice reasoning and drawing conclusions by addressing open-ended questions during class discussions or formal quizzes/exams. Students apply their knowledge of chemical principles to explain how a particular product exemplifies an acid-base reaction or develop a laboratory protocol using available items.

Students compile a lab report for each investigation or experiment. Students evaluate the data objectively to draw conclusions about a hypothesis. Students also evaluate data to identify experimental error and propose ways to minimize error in subsequent trials.

**Quantitative Reasoning. Communication/Representation of Quantitative Information; Analysis of Quantitative Arguments; and Application of Quantitative Models**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of quantitative reasoning.*

Students practice quantitative reasoning by examining texts and manipulating given data sets. The students complete quantitative exercises as part of class discussions, lab reports and formal exams. Class discussion is most often used as a formative method for evaluating initial student understanding while formal exams and laboratory reports are used for summative assessment.

**Communication/Representation of Quantitative Information and Analysis of Quantitative Arguments**

In both lecture and laboratory, students communicate information using written descriptions, chemical symbols, and diagrams. Students demonstrate understanding by showing step-wise progress in solving calculations or representing chemical reactions. Students examine data sets and determine if the set adheres to mathematical models. In the laboratory students compare their own data sets with peers to identify experimental error and propose a way to minimize error in subsequent trials.

**Application of Quantitative Models**

In both lecture and laboratory, student practice using quantitative models by using data sets to design representative tables, graphs or diagrams. Students explain how a information represented in a diagram adheres or deviates from a mathematical model. In the laboratory oral presentation, students explain how a mathematical model is incorporated into the researched problem.

**Personal & Social Responsibility. Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global**

*In this box, provide a narrative that explains how the proposed course addresses **2** of the components of personal & social responsibility.*

#### Sustainability and Ethical Reasoning

Throughout the term, students relate chemistry with the human impact on the environment. Students learn how chemical means are used to minimize human impact and how environmental chemistry can impact living systems. Students learn the immediate and long-term impact of these interactions as well as the sustainability of the interactions. Students practice ethical reasoning during class discussion or discussion postings in response to assigned text/articles and videos. Students identify ethical concerns and explain ways to address the concerns within a chemistry context.

#### Collaboration Skills and Teamwork

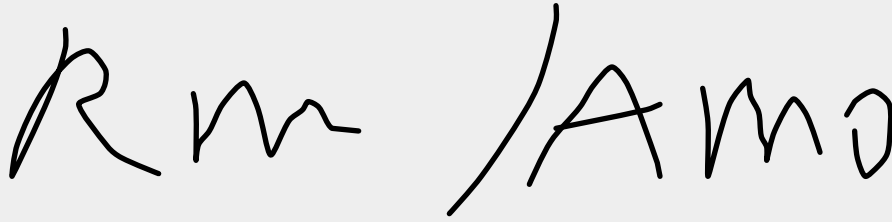
In laboratory, students collaborate by working in small groups to complete experiments and laboratory exercises. The lab sessions provide opportunities for students to discuss and develop a single cohesive solution to open-ended questions that are based in a sustainability or socially responsible context.

#### **D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

[https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan\\_ENMURoswell.pdf](https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan_ENMURoswell.pdf)

This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).



**Date**

Mar 29 2021

## Upload Assessment

**Completed** - Mar 29 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

### [CHEM 1215 and 1215L ASSESSMENT](#)

**Filename:** CHEM\_1215\_and\_1215L\_ASSESSMENT.pdf **Size:** 219.1 kB

## Upload Rubric

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

## Application: 0000001529

Michael Ottinger - ottingerm@sanjuancollege.edu  
NM General Education Curriculum

### Summary

**ID:** 0000001529

**Status:** Under Review

**Last submitted:** Mar 29 2021 05:35 PM (MDT)

## Application Form

**Completed** - Mar 29 2021

# Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout

the course.

### Contact Information

Name	Elaine Benally
Title	Dean of Humanities
Phone	5055663081
Email	<a href="mailto:benallye@sanjuancollege.edu">benallye@sanjuancollege.edu</a>

### Submitting Institution

Name of HEI	San Juan College
Submitting Department	School of Humanities

### Chief Academic Officer

Name	Adrienne Forgette
Email	<a href="mailto:forgettea@sanjuancollege.edu">forgettea@sanjuancollege.edu</a>

### Registrar

Name	Sherri Schaaf
Email	<a href="mailto:schaafs@sanjuancollege.edu">schaafs@sanjuancollege.edu</a>

### Is this application for your entire system (ENMU, NMSU, & UNM)?

(No response)

### Institutional Course Information

Prefix	ARTS
Number	1630
Title	Painting 1
Number of credits	3

**Was this course previously part of the New Mexico General Education curriculum?**

No

### Co-requisite Course

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)

### New Mexico Common Course Information

Prefix	ARTS
Number	1630
Name	Painting 1

### A. Content Area and Essential Skills

**To which area should this course be added?**

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Creative & Fine Arts - Communication, Critical Thinking, Personal & Social Responsibility

## B. Learning Outcomes

---

**List all common course student learning outcomes for the course.**

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

1. Produce paintings that demonstrate the tradition of methods, techniques, materials, and tools of oil painting.
2. Construct a variety of support structures and grounds on which paintings are created.
3. Examine the historical origins and practices of painting from the personal, social and cultural perspective.
4. Identify and apply environmentally safe painting practices, care of tools, equipment, and facilities, as well as disposal of mediums, solvents and paints.
5. Apply basic color theory to representational and non-representational painting.

---

### **Institution-specific Student Learning Outcomes**

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

1. Produce paintings that demonstrate the tradition of methods, techniques, materials, and tools of oil painting.
2. Construct a variety of support structures and grounds on which paintings are created.
3. Examine the historical origins and practices of painting from the personal, social and cultural perspective.
4. Identify and apply environmentally safe painting practices, care of tools, equipment, and facilities, as well as disposal of mediums, solvents and paints.
5. Apply basic color theory to representational and non-representational painting.



## C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

***Communication. Genre and Medium Awareness, Application and Versatility; Strategies for Understanding and Evaluating Messages; and Evaluation and Production of Arguments.***

*In this box, provide a narrative that explains how the proposed course addresses **all** of the components of communication.*

In their introduction to the nature, handling properties, application, and versatile nature of paint, pupils will gain insight into the infinite possibilities this material provides. They will attain the skill to manipulate the medium, understand how paint can be used to create different effects, apply their knowledge in the production of paintings worthy of their efforts and be able to constructively evaluate the results.

Knowledge of paint and its capabilities and limitations will be further explored as students explore time tested techniques such as creating a grisaille, direct ala prima techniques and a bones up technique of building landscapes and other subjects. Insight into the technical aspects of oil painting will be obtained. Students will gain perspectives into historical and cultural aspects of painting as well as careers related to painting.

Students create paintings that visually communicate ideas drawn from their personal lives or perspectives on the world. Students will demonstrate skills such as utilizing value, color, shape, textures, and lines to create direct narrative elements or infer emotions in their work. Students are then required to verbally present their work and elaborate on what worked well while identify areas for improvement. They must also be receptive to and respond to criticism of other students. They are required to evaluate the other students' work and provide detailed feedback. During group and individual teacher/student discussions, students share their learning process as they present the influences and origins of their ideas.

***Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.***

*In this box, provide a narrative that explains how the proposed course addresses all of the components of critical thinking.*

Students are challenged to think creatively from the very beginning. Starting with evaluating the pros and cons of which painting medium to pursue. Students are presented with the option of using either oil or acrylic paint. They are then informed as to their individual properties, handling capabilities and cost. Using the evidence presented they must evaluate the information that they have been given and conclude which would be best suited to them.

Later, as they come to knowledge and understand the working capabilities of their chosen medium, they move on to apply their ideas in original ways within their paintings. They must consider how they will communicate ideas visually using the different aspects of paint as they continue to discover it's properties.

As they work towards understanding how the work will received and understood by others, they will gather evidence in the form of feedback from others. After receiving feedback in verbal critiques from students and the instructor, they must consider what changes they might make as they examine the gathered evidence in order to improve their work. They must decide whether it is through the improvement of the narrative/idea being communicated or improvements in the quality/application of the techniques that they can best achieve their aim. As adjustments are made students will continue to evaluate how they can improve their paintings based on the continued feedback they received.

**Personal & Social Responsibility. *Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global***

*In this box, provide a narrative that explains how the proposed course addresses **2** of the components of personal & social responsibility.*

Students engage in activities that enhance their awareness of personal and social responsibility. The first of these is managing the shared studio space. Care must be taken to keep the studio clean and safe. Some of the chemicals that are used in the painting process can be hazardous if mishandled and must be disposed of properly. Remnants of paint left on the equipment can also pose a hazard. Wet paint is easily transferred to one item and then another and can ruin clothing and other items if not properly cleaned at the end of the painting process. Students must keep in mind how their actions in the studio affect other students.

Additionally, students will also engage in informal critiques. Feedback from other students is invaluable to the painting process. Because errors are sometimes hard to recognize, students will ask for feedback from other students and give feedback as well. This collaborative feedback develops teamwork skills and demonstrates a shared social responsibility to others in the art community.

Student will also learn that as they progress in skill, they will have an increasing ability to communicate through their artwork. Images can have a strong impact in the community and in society at large.


Students must take care to be intentional about the messages they are communicating, and cultural awareness is encouraged.

#### **D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

<https://www.sanjuancollege.edu/media/sanjuancollegeedu/documents/learning/General-Education-Assessment-Plan-final-Fall-2019.pdf>

This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).



**Date**

Mar 29 2021

## Upload Assessment

**Completed** - Mar 29 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

### [Assessment - ARTS1630](#)

**Filename:** Assessment\_-\_ARTS1630.pdf **Size:** 171.4 kB

## Upload Rubric

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

# Application: 0000001474

Robert Moore - Robert.Moore@rm01.enmuros.cc.nm.us  
NM General Education Curriculum

### Summary

**ID:** 0000001474

**Status:** Under Review

**Last submitted:** Mar 25 2021 08:35 AM (MDT)

## Application Form

# Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.

- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

### Contact Information

Name	Robert Moore
Title	Assistant VP
Phone	5756247001
Email	<a href="mailto:robert.moore@roswell.enmu.edu">robert.moore@roswell.enmu.edu</a>

### Submitting Institution

Name of HEI	ENMU-Roswell
Submitting Department	Creative & Fine Arts

### Chief Academic Officer

Name	Annemarie Oldfield
Email	<a href="mailto:annemarie.oldfield@roswell.enmu.edu">annemarie.oldfield@roswell.enmu.edu</a>

### Registrar

Name	Linda Neel
Email	<a href="mailto:linda.neel@roswell.enmu.edu">linda.neel@roswell.enmu.edu</a>

### Is this application for your entire system (ENMU, NMSU, & UNM)?

No

## Institutional Course Information

Prefix	MUSC
Number	1110
Title	Music Appreciation: Jazz
Number of credits	3

## Was this course previously part of the New Mexico General Education curriculum?

Yes

## Co-requisite Course

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)

## New Mexico Common Course Information

Prefix	MUSC
Number	1110
Name	Music Appreciation: Jazz

## A. Content Area and Essential Skills

## To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Creative & Fine Arts - Communication, Critical Thinking, Personal & Social Responsibility

## B. Learning Outcomes

### List all common course student learning outcomes for the course.

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

1. Develop a vocabulary of musical terms, and be able to describe music using those terms.
2. Demonstrate knowledge of composers, their music, and their relationship to historical periods.
3. Recognize how music played and plays a political, social, and cultural function.
4. Identify well-known pieces and the historical and social context in which they were composed.
5. Demonstrate a basic understanding of music notation and musical communication.

### Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

NA



## C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

**Communication. Genre and Medium Awareness, Application and Versatility; Strategies for Understanding and Evaluating Messages; and Evaluation and Production of Arguments.**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of communication.*

[\*Genre and Medium Awareness:] The act of observing, interacting, and evaluating Jazz is an exercise in communication: reading the music / musician, examining the “messages” or meaning of the song, and sharing those messages to a larger (or personal) audience make up the bulk of assignments and activities. Students learn musical terms and how to describe music--dynamics, tempo, and expression for example. When these aspects are paired with pitch and rhythm, the students can interpret a composer's intention and replicate the music. Students study and are tested on vocabulary. These terms apply to all musical works, and all creators and performers of music use them to convey their expressive intent. Students also are introduced to the major genres and movements in Jazz through faculty lecture, performances, and a series of readings that include authoritative critical assessments. As students achieve versatility the nomenclature and listen to a diverse array of artists, they begin a dialog with specific songs and artists; one assignment asks students to write about the “messages” a particular song is trying to communicate: love? Anger? Desperation? Individual journals, quizzes, and discussion all allow students to reflect on, experience, and appreciate the different manifestations and derivatives of Jazz and the musicians who are most identified with Jazz. We trace the development of diverse musical styles, for example, from gospel to hip hop. Every song is a different kind of communication, and the conversations occurs in both the processes musicians use to create their songs and in the songs they produce. By examining and writing about musicians, students begin to understand the "voice" of the musician and the song precisely.

[Strategies for Understanding and Evaluating Messages:] Analysis of music requires extreme flexibility of imagination and the ability to connect observations to experience; students have multiple opportunities to search for “meaning” in discussions, reflection essays, and final exams. Exercises in class also suggest a pattern for how to look for messages. Students write their own response to a song (Thelonius Monk’s “Around Midnight”) and then read a small historical piece about bee-bop, a review from a respected critic about the historical context of the song, and a small essay on Monk. Finally, they re-write their analysis now that they have other tools to evaluate the Jazz piece, learning that their observation is just one way to evaluate and understand. As we mature our ability to talk about “style,” we simultaneously mature our ability to compare and contrast ideas, techniques, mediums, and ways of expressing from across genres and musicians. We emphasize the process of “broadening and deepening” our understanding in numerous exercises from artifact examination discussions in class to our final essays dedicated to a student’s selected musician or song.

[\*Evaluation and Production of Arguments:] As students assess Jazz music and musicians from across the tradition, they are practicing the processes of argument: evaluating a source document, considering constituent parts, examining the parts in relationship to each other, and forming an opinion/position about what they’ve studied; after the evaluation, they produce an essay, engage in a conversation, or take an exam that explores the depth and acuity of their evaluation. Nearly every assignment in the class asks the students to evaluate and reflect back their opinion; they make arguments when they write their response papers comparing two distinct kinds of Jazz (instrumental or swing) or when they argue The Blues singers are the only true Jazz musicians. When they are engaging questions unique to Jazz (like racial provenance, for example, or the difference between masculine and feminine representation), they evaluate the history, conflicts, lyrics, audience, and social relevance of a particular song and then generate an argument to share with the class about how the song contributes to ongoing debates. Their short essays ask them to evaluate how a particular piece fits into or works against other similar songs; one of their projects asks them to listen to several works from the same musician and explain what they have in common. The experience of listening to Jazz, from hearing different compositions to examining different songs within a musician’s oeuvre, is a continuous process of evaluating the musical pieces and making an argument about how they fit into, define, or branch away from their traditions.

---

***Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.***

*In this box, provide a narrative that explains how the proposed course addresses **all** of the components of critical thinking.*

[\*Problem Setting:] During the semester, students respond to multiple types and modes of Jazz from early roots to contemporary stylings; they share their reactions and experiences through reflective documents, response essays, quizzes, exams, and an analytical research paper; they participate in discussions nearly every class where they must determine and tackle a particular problem or issue a musical piece or artist presents; they offer presentations, work in small groups to explore and present discoveries, and share their reactions informally with classmates.

[Evidence Acquisition:] Students access and consider the evidence available through their assigned course texts, the library's general collection, and the University's numerous databases (e.g., EBSCO, Academic Search Complete, ProQuest, JSTOR, etc.), and faculty-provided material to support their observations, analyses, and arguments forwarded in-class discussion and on assignments. Several assignments, like their exams, require them to share evidence they have accumulated; other assignments, like the reflective responses, are designed to enhance students' research and discovery skills and reward effective use of outside sources. The first essential skill the course works through is developing a vocabulary of musical terms and being able to describe music using those terms and the specialized area that is Jazz. It is crucial to understand and put music terminology into practice in terms of dynamics, tempo, and expression. When these aspects are paired together with pitch and rhythm, they can adequately interpret the music composer's intention and replicate it. We use these words frequently to help the student retain them and reinforce their practice when discussing or writing about musical pieces assigned in class.

[\*Evidence Evaluation:] Discussions compel students to respond to digitally reproduced music, primary texts, other students' positions, as well as professional critiques/reviews; the discussions and written responses model techniques of textual and cultural evaluation. For many of the statements students make (in discussions, for example), we emphasize currency, relevance, authority, accuracy, and purpose. Students create their credible arguments; many assignments make conscious the evaluation techniques necessary to assure thoughtful and hearty presentation (focused/evaluated annotation and response to individual works is an example).

[\*Reasoning/Conclusion(s):] Students arrive at defensible, relevant, and interesting conclusions based on sound and creative premises in their essays, presentations, and short assignments. They are guided to ask questions, explore, surmise, posit opinions, and support their opinions through different deductive

reasoning and Socratic teaching strategies. Jazz music has a multimedia index of vocabulary specific to the interdisciplinary field. It includes more than 250 terms, ranging from jazz music's sounds and techniques to relevant cultural and historical phenomena. The course focuses on specific historical changes within the genera that define the vocabulary used throughout the course. To truly appreciate Jazz, a student needs to identify each part (bass line, melody, harmony, improvisation) and at the same time hear how all of the parts fit together. Utilizing the appropriate vocabulary aids the student in developing an appreciation and, as such, the ability to analyze and reach conclusions about their thoughts and observations. Repeated exposure to primary and secondary sources (songs and critiques of songs, historical documents) allows students to engage examples of good and poor reasoning, logical fallacies, misguided conclusions, affirming organization, and general argument valuable patterns for college-level academic discourse.

**Personal & Social Responsibility. *Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global***

*In this box, provide a narrative that explains how the proposed course addresses **2** of the components of personal & social responsibility.*

[\*Intercultural Reasoning and Intercultural Competence:] During the semesters, through the observation and encounter of musical works, readings, research, and discussions, students immerse themselves in a variety of socio-cultural issues in the Jazz / lyrical world across time periods, cultures, regions, and methods of display (concerts, clubs, studio work); examine how past socio-cultural music (and forms of music, like spirituals) informs current artists; and learn to appreciate and approach differing artistic styles, attitudes, and artifacts across generations. The third essential skill we utilize within this course is recognizing how Jazz music played and played a political, social, and cultural function. Jazz in itself is a social and cultural creation. The students are exposed to a comprehensive historical look at Jazz's birth and how Jazz moved from the African American communities in New Orleans to a worldwide art form. Student progress is measured in part on their ability to recognize differing modes, practices, and styles of Jazz and reflect their understanding in essays, projects, and presentations; many of the assignments ask them to engage, react to, and otherwise consider issues most relevant to the social role of Jazz, including celebratory, communal, soulful, and representations of individual power, etc.; the issues are topics for discussion, essays, and exams.

[\*Civic Knowledge and Engagement—Local and Global:] Across the semester, students tackle contemporary and past Jazz pieces/artists and investigate them; many of the works are public or shared on a local/global level, and most of the music was "performed" in a civic setting; students learn about how and where the music is conserved, produced, and consumed and, consequently, gain knowledge about the civic nature of Jazz. Students also explore the local and global contexts surrounding the creation, distribution, and context of Jazz music; one project, for example, asks students to select one piece of music performed in two different venues (studio album and concert, for example, and compare/contrast them. Key Figures within the Jazz community are examined through the music and their influence within art and the social community in which they flourished: Louie Armstrong, Miles Davis, Charlie Parker, Lester Young, etc., are key figures discuss and listen to within the course work. One of Jazz's critical contributions to the world was its help in diversifying the music industry. Jazz played a significant role in the Harlem Renaissance, a cultural and social revolution in New York during the "Jazz Age." Like many poets and artists of this time period, jazz musicians often rebelled against the day's artistic norms to create something completely their own. Students will explore the Harlem Renaissance and find connections within Jazz music that demonstrate the cohesive nature of the community and the music. Students strive to contextualize academic discourses with global movements, structures, and attitudes. Nearly every musical piece embraces the conversation of civic responsibility either as a critique, a model, or an investigation of communities in action; the songs provide the leaping-off point for discussions about how the individual conflicts with, correspondent to, or estranged from society. The students' essays allow them to reflect and sharpen their understanding.

---

#### **D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

[https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan\\_ENMURoswell.pdf](https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan_ENMURoswell.pdf)

This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).



**Date**

Mar 24 2021

## Upload Assessment

**Completed** - Mar 24 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

### [MUSC 1110 Assignment](#)

**Filename:** MUSC\_1110\_Assignment.pdf **Size:** 341.6 kB

## Upload Rubric

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

# Application: 0000001459

Robert Moore - Robert.Moore@rm01.enmuros.cc.nm.us  
NM General Education Curriculum

### Summary

**ID:** 0000001459

**Status:** Under Review

**Last submitted:** Mar 24 2021 11:16 AM (MDT)

## Application Form

**Completed** - Mar 24 2021

# Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout

the course.

### Contact Information

Name	Robert Moore
Title	Assistant VP
Phone	5756247001
Email	<a href="mailto:robert.moore@roswell.enmu.edu">robert.moore@roswell.enmu.edu</a>

### Submitting Institution

Name of HEI	ENMU-Roswell
Submitting Department	Social and Behavioral Science

### Chief Academic Officer

Name	Annemarie Oldfield
Email	<a href="mailto:annemarie.oldfield@roswell.enmu.edu">annemarie.oldfield@roswell.enmu.edu</a>

### Registrar

Name	Linda Neel
Email	<a href="mailto:linda.neel@roswell.enmu.edu">linda.neel@roswell.enmu.edu</a>

### Is this application for your entire system (ENMU, NMSU, & UNM)?

No

### Institutional Course Information



Prefix	ECON
Number	1110
Title	Survey of Economics
Number of credits	3

**Was this course previously part of the New Mexico General Education curriculum?**

Yes

**Co-requisite Course**

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)

**New Mexico Common Course Information**

Prefix	ECON
Number	1110
Name	Survey of Economics

**A. Content Area and Essential Skills**

**To which area should this course be added?**

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Social & Behavioral Sciences - Communication, Critical Thinking, Personal & Social Responsibility

## B. Learning Outcomes

---

**List all common course student learning outcomes for the course.**

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

1. Gain and demonstrate a contextual understanding of economic terms and concepts.
2. Recognize and analyze common economic issues which relate to individual markets and the aggregate economy.
3. Learn basic economic principles that influence global trading and challenges relating to globalization.
4. Outline the implications of various economic policies on individuals and on economies.
5. Demonstrate ability to use diagrams and graphs to explain economic principles, policies and their applications.
6. Appreciate and understand how individual decisions and actions, as a member of society, affect economies locally, nationally and internationally.
7. Explain the roles of governments in influencing buyer and seller behavior in the market and how government failure occurs when intervention fails to improve or actually worsens economic outcomes.
8. Be able to apply course concepts to interpret, evaluate and think critically about economic events and policies, especially as regularly reported in the media and other public forums.

---

### **Institution-specific Student Learning Outcomes**

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

NA

## C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

***Communication. Genre and Medium Awareness, Application and Versatility; Strategies for Understanding and Evaluating Messages; and Evaluation and Production of Arguments.***

*In this box, provide a narrative that explains how the proposed course addresses all of the components of communication.*

Students will produce a written exercise exploring global issues that are relevant to economic concepts. The work is intended to illustrate factual based learning and reporting in ways that lead to the skill of evaluating the veracity of information utilizing economic concepts through integrating supportive facts into the students' positions. Clear explanations of the economic concepts and the rationale for their use in the subject situation will aid students' development of the ability to succinctly communicate the relationships of conceptual economics in a situational context. Students may be required to prepare a visual presentation of their findings to be presented to the class that describes the issue, highlights the relevant economic concepts, and produces a meaningful explanation of the situation in light of the economic principles involved.

***Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.***

*In this box, provide a narrative that explains how the proposed course addresses all of the components of critical thinking.*

Students are presented with “real world” problems and issues requiring that clear-cut conclusions be made to determine if one path should be followed or another might be more valid based on the evidence presented in the problem. Students are required to define the situation, describe the relevant economic concepts that are involved in the particular scenario, apply the most cogent economic theory that demonstrates a resolution to the problem. Depending on the concept selected, students assemble data that illustrate the issue being studied or evaluated in the situation and produce an economic analysis that is relevant to the situation. Students are responsible for evaluating and validating the validity of the data used in resolving the problem based on the use of credible information. Students, through the application of economic concepts are able to draw conclusions in the given situation based on their use of relevant data.

***Personal & Social Responsibility. Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global***

*In this box, provide a narrative that explains how the proposed course addresses 2 of the components of personal & social responsibility.*

Students participate in a collaborative group project that culminates in a class presentation on an issue that demonstrates their understanding of an economically based issue that demands ethical reasoning in a business context. Students investigate and describe alternative economic solutions to the issue based on the points of view of various business stakeholders, comparing and contrasting the alternate solutions based on the constituents’ economic stakes. An ethical solution is proposed that meets the most relevant perspective of the largest group of constituents that has the least negative impact on any other group of stakeholders.

#### D. Assessment Plan (Must be on file with HED by August 1, 2019)

Link to Institution's General Education Assessment Plan

[https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan\\_ENMURoswell.pdf](https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan_ENMURoswell.pdf)

This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).

A handwritten signature in black ink on a light gray background. The signature consists of the letters 'Rm' followed by a diagonal slash '/' and then 'Am D'. The 'R' is a simple loop, 'm' has two humps, 'A' is a simple triangle, 'm' has two humps, and 'D' is a simple oval.

Date

Mar 24 2021

## Upload Assessment

Completed - Mar 24 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

### ENMU-Roswell Assignment ECON 1110 (200)

Filename: ENMU-Roswell\_Assignment\_ECON\_1110\_200.pdf Size: 489.9 kB

## Upload Rubric

Incomplete

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

# Application: 0000001479

Robert Moore - Robert.Moore@rm01.enmuros.cc.nm.us

## Summary

**ID:** 0000001479

**Status:** Under Review

**Last submitted:** Mar 25 2021 10:43 AM (MDT)

## Application Form

**Completed** - Mar 25 2021

## Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

# Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

## Contact Information

Name	Robert Moore
Title	Assistant VP
Phone	5756247001
Email	<a href="mailto:robert.moore@roswell.enmu.edu">robert.moore@roswell.enmu.edu</a>

## Submitting Institution

Name of HEI	ENMU-Roswell
Submitting Department	Humanities

## Chief Academic Officer

Name	Annemarie Oldfield
Email	<a href="mailto:annemarie.oldfield@roswell.enmu.edu">annemarie.oldfield@roswell.enmu.edu</a>

## Registrar

Name	Linda Neel
Email	<a href="mailto:linda.neel@roswell.enmu.edu">linda.neel@roswell.enmu.edu</a>

**Is this application for your entire system (ENMU, NMSU, & UNM)?**

No

**Institutional Course Information**

Prefix	SPAN
Number	1110
Title	Spanish I
Number of credits	3

**Was this course previously part of the New Mexico General Education curriculum?**

Yes

**Co-requisite Course**

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)

**New Mexico Common Course Information**

Prefix	SPAN
Number	1110
Name	Spanish I

**A. Content Area and Essential Skills**



## To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Humanities - Information & Digital Literacy, Critical Thinking, Personal & Social Responsibility

## B. Learning Outcomes

**List all common course student learning outcomes for the course.**

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

1. Students can communicate on very familiar topics using a variety of words and phrases that they have practiced and memorized.
2. Students can present information about myself and some other very familiar topics using a variety of words, phrases, and memorized expressions.
3. Students can write short messages and notes on familiar topics related to everyday life.
4. Students can often understand words, phrases, and simple sentences related to everyday life.
5. Students can recognize pieces of information and some- times understand the main topic of what is being said.
6. Students can understand familiar words, phrases, and sentences within short and simple texts related to everyday life.
7. Students can sometimes understand the main idea of what they have read.

## Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

NA

### C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

#### **Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.**

*In this box, provide a narrative that explains how the proposed course addresses **all** of the components of critical thinking.*

[\*Problem Setting:] During the semester, students are exposed, practice, and learn Spanish language through lexicographical study, reading, and oral and written exercises. Students participate in individual and group activities while exploring Spanish language and culture. Students share their reactions and experiences through practice documents, quizzes, exams, and essays; they participate in oral language interplay nearly each.

[Evidence Acquisition:] Students access and consider evidence through their assigned course texts, recordings, handouts, the library's general collection, and the University's numerous databases (e.g., EBSCO, Academic Search Complete, ProQuest, JSTOR, etc.), and faculty-provided material to support their language skill adoption and study. Several assignments, like their quizzes and exams, require them

to rally information they have accessed about vocabulary, grammatical construction, voice, and forms. The short reading assignments about culture allow students to gather more information about Spanish language and practice.

[\*Evidence Evaluation:] Oral interactions with the faculty member and other students compel students to practice speaking and communicating in Spanish; they must weigh choices in vocabulary and syntax. During discussions (about language and/or culture), students weigh the value of primary texts (including individual sentences, short paragraphs, or longer documents) and other students' opinions. For many of the statements students make (in discussions, for example), we emphasize currency, relevance, authority, accuracy, and purpose. Students are working on creating their own credible sentences and paragraphs; many assignments make conscious the techniques of evaluation necessary to assure thoughtful and hearty presentation (in one exam, they converse with the faculty member on a specific topic).

[\*Reasoning/Conclusion(s):] Students arrive at accurate, syntactical correct sentences after much practice and trial/error. They are asked to weigh options (word choice, syntax, context, etc.) for each sentence they read or write and reason through their choices to arrive at the most appropriate arrangement. Students interact with vocabulary words from a particular lesson; they categorize the words according to similarities in meaning or other criteria and compare current vocabulary words to previous learned words to spot similarities and differences, especially in the context of complete sentences. Students are introduced to Latin roots that appear in romance languages, and they learn to interpret the meaning of some vocabulary words by reasoning from the Latin root. Students show higher order thinking by pursuing information about the etymology of Spanish vocabulary. Students use the culture section in their texts to understand the relationship that the US has with Spanish speaking countries. They distinguish differences and similarities in cultures across Spanish speaking communities. Students demonstrate reasoning to compare/contrast the culture in America with Spanish- speaking countries. Students study the histories of Spanish-speaking countries. An oral presentation summarizes the similarities and differences between countries. Students use critical thinking to put words together into sentences that are cohesive and grammatically correct. In discussion about culture and, sometimes, grammar, students are guided to ask questions, explore, surmise, posit opinions, and support their opinions through different strategies of deductive reasoning and Socratic teaching. Repeated exposure to primary and secondary sources (handouts, fluent speakers in audio and film) allow students to engage examples of good and poor language expression valuable for college-level academic discourse, which provides a model for how they reason their way toward accurate writing, reading, and speaking.

**Personal & Social Responsibility. *Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global***

*In this box, provide a narrative that explains how the proposed course addresses 2 of the components of personal & social responsibility.*

[\*Intercultural Reasoning and Intercultural Competence:] During the semester, students immerse themselves in a variety of language and socio-cultural issues related to speaking and writing Spanish as well as Spanish culture. The acquisition of language skills and knowledge allows for deeper intercultural investigation, learning, and expression. Student progress is measured in part on their ability to speak and write coherent sentences in Spanish but also on their ability to recognize and respond to the uniqueness of Spanish culture; they reflect their understanding in short projects and quizzes; many of the assignments ask them to engage, react to, and otherwise consider the central ways Spanish culture is reflected in language.

[\*Civic Knowledge and Engagement—Local and Global:] The Spanish classroom is the perfect place to demonstrate and to teach personal and social responsibility through intercultural reasoning and competence in socialization. Students become aware of the different cultures that contribute to the Spanish language and create a “cultural intersection” project where they examine their own culture and compare their culture to that of Spanish-speaking countries. The cultural intersection demonstrates student self-awareness and sense of belonging in terms of the real world. They then create a “cultural intersection” for a pen pal who lives in Mexico or Spain and compare the two intersections to see how the student relates to another student who lives in a Spanish-speaking country. The cultural intersection demonstrates awareness of self and of others and builds respect for other cultures. Additionally, students must observe group protocol by allowing others equal time to participate and to show courtesy by listening respectfully and by reacting to all others in a group setting. Group protocol is observed, including requiring students to listen, share, respect, and give equal time in the group setting. Across the semester, students are introduced to Spanish history as reflected in local and global language use and expression. Students learn about how the language has changed through history and adapted to local communities; they learn how Spanish as a spoken language is both international and community specific. One project, for example, asks students to read and interact with “Spanglish” as a way to appreciate the diversity of dialect. Nearly every practice assignment, the sentences students read and write, embraces the conversation of civic responsibility either as a critique, a model, or an investigation of language in

action; much of the vocabulary, for example, is practical and necessary for felicitous interaction in social settings.

---

**Information & Digital Literacy. Authority and Value of Information; Digital Literacy; Information Structure; and Research as Inquiry**

*In this box, provide a narrative that explains how the proposed course addresses **3** of the components of digital literacy.*

[\*Digital Literacy / Information Structures:] Students master Blackboard both to initiate and participate in several course discussions, communicate with their classmates and instructor, check their grades, and receive course-wide and institutional updates. Many class sessions and/or meetings are held over Teams or Zoom. Students engage other important digital tools, including email, PowerPoint, web browsers, and often other platforms like Instagram for communication, research, and general communication. Students have access to tutoring services as well as a wealth of online tutorials and services available to assist their academic progress (Youtube videos, tutorials, Purdue Owl, etc.). These digital tools manifest in their assignments at every level.

[\*Information Structures:] Students embrace the library, both physical and virtually, as an enormous campus resources to facilitate and conduct research and investigation. They have access to and are required to interact with the library's digital resources, including e-Books, electronic articles, and electronic reference works, especially in preparation for their exams and continuous practice.

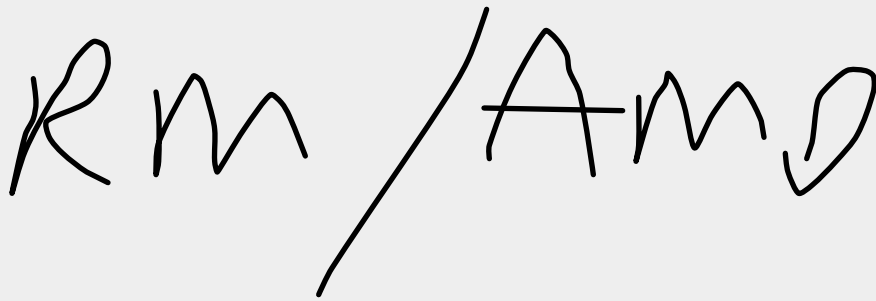
[\*Research as Inquiry:] Assignments and academic interaction in the classroom emphasize a student's ability to initiate, conduct, and arrive at conclusions/opinions about language use and culture through a variety of research methods. The course teaches students, first, to listen carefully and then examine more thoroughly areas of culture, language, or usage that are complicated or more difficult. In the final oral exam, for example, students are asked questions in Spanish and must respond in Spanish; the prompts require them both to analyze the question and the appropriate form for an answer. The exam challenges students to appreciate their role in the knowledge-making adventure of academic investigation through the process of listening to questions seeking their opinions that are well-supported and engaging. Nearly every practice assignment and discussion requires students to embrace the "research as inquiry" model, but their trial-and-error work with language construction is the clearest evidence of their pursuit of knowledge through inquiry.

#### D. Assessment Plan (Must be on file with HED by August 1, 2019)

Link to Institution's General Education Assessment Plan

[https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan\\_ENMURoswell.pdf](https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan_ENMURoswell.pdf)

This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).

A handwritten signature in black ink, consisting of the letters 'Rm' followed by a diagonal slash and the letters 'Amo'.

Date

Mar 25 2021

## Upload Assessment

Completed - Mar 25 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

### SPAN 1110 Assignment

Filename: SPAN\_1110\_Assignment.pdf Size: 409.1 kB

## Upload Rubric

Incomplete

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

**Application: 0000001443**

## Summary

**ID:** 0000001443

**Status:** Under Review

**Last submitted:** Mar 18 2021 04:06 PM (MDT)

## Application Form

**Completed** - Mar 18 2021

## Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).



**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

### Contact Information

Name	Michael Bilopavlovich
Title	Faculty
Phone	5754614413 ext. 150
Email	<a href="mailto:michaelb@mesalands.edu">michaelb@mesalands.edu</a>

### Submitting Institution

Name of HEI	Mesalands Community College
Submitting Department	Academic Affairs

### Chief Academic Officer

Name	Natalie Gillard
Email	<a href="mailto:natalieg@mesalands.edu">natalieg@mesalands.edu</a>

## Registrar

Name	Forrest Kaatz
Email	<a href="mailto:forrestk@mesalands.edu">forrestk@mesalands.edu</a>

### Is this application for your entire system (ENMU, NMSU, & UNM)?

No

## Institutional Course Information

Prefix	CHEM
Number	113
Title	General Chemistry
Number of credits	4

### Was this course previously part of the New Mexico General Education curriculum?

Yes

## Co-requisite Course

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)

## New Mexico Common Course Information

Prefix	CHEM
Number	1216
Name	General Chemistry

### A. Content Area and Essential Skills

#### To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Science - Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning

### B. Learning Outcomes

#### List all common course student learning outcomes for the course.

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

##### STUDENT LEARNING OUTCOMES

1. Students of chemistry basics will:

- A. Describe the main features of atoms and molecules
- B. Explain the Periodic Table
- C. List methods of measurement in chemistry

2. Students of the structure of atoms and molecules will:

- A. Describe atomic structure
- B. Describe molecular structure

3. Students of chemical reactions will:
  - A. Explain the principles of chemical equations
  - B. Describe the main elements of stoichiometry
  
4. Students of gases, light, and periodicity will:
  - A. Describe the behavior of gases
  - B. Explain the relationship between atoms and light
  - C. Atomic structure and periodicity
  
5. Students of bonding and intermolecular forces will:
  - A. Outline the fundamentals of bonding
  - B. Describe the nature of multiple bonds
  - C. Explain the structure of macromolecules
  - D. Describe the principle intermolecular forces
  
6. Students of the rates of chemical reactions will:
  - A. Describe the principles that govern the rates of reactions
  - B. Explain the main features of experimental kinetics
  
7. Students of chemical equilibria will:
  - A. Outline the main features of dynamic equilibrium
  - B. List the types of equilibria
  - C. Explain the principles of thermodynamics and equilibrium

---

### **Institution-specific Student Learning Outcomes**

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

N/A

## C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

### **Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of critical thinking.*

Students will develop inferences and problem solving solutions based on data that they derive from the ten labs, lectures, and inference assignments. Students will collect evidence, and evaluate that evidence continually throughout the course using the different labs, lectures, and articles. Some examples in the class include; the Flame Test Lab, Measuring Mass Lab, Photoelectric Effect Lab, and Ideal vs Real Gas Law Lab. Some Examples of the Inference assignments in addition to the labs that promote Critical Thinking include; Carbon 14 Validity, Nuclear Usage in the future, and What will future fuels look like. In all these assignments students are given data, not answers promoting Critical Thinking. They will have to form conclusions that are scientifically valid given their research and data. Critical Thinking is key to this course and developing scientific logic, students are constantly challenged to think beyond the given facts and postulates and see if they appear to be applicable in each research area in the course. One such area in this course is molecular bonding and the bond types that can occur and change the structure of the molecule. Students must use a computer model to examine the possible molecular bonding of several compounds, ions, and isotopes, and determine which ones would be the most stable and which ones would most likely not exist in nature outside the Chemistry Lab.

**Quantitative Reasoning. Communication/Representation of Quantitative Information; Analysis of Quantitative Arguments; and Application of Quantitative Models**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of quantitative reasoning.*

Students are given data practice activities throughout the course in which they are to examine quantitative information and assess its relevance and analyze the data for cumulative conclusions. Students use scientific equipment to quantitatively determine data. Triple beam and analytical balances as used to collect much of the data that the students analyze. In one example students have to determine the percent error from using a triple beam balance vs using an analytical balance. Students also experience Quantitative Reasoning as they use ashless filter paper to determine the amount of arsenic in the local tap water. Students have to develop Scientific charts and graphs constantly throughout the course which we can assess the effectiveness of the student's quantitative collection skills.

**Personal & Social Responsibility. *Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global***

*In this box, provide a narrative that explains how the proposed course addresses **2** of the components of personal & social responsibility.*

Students are asked to ethically reason on scientific issues on both local and global levels. The mix of science and the people that both formulate and use the science is experienced by the students as they develop intercultural reasoning and intercultural differences. Some examples include calculation of their own CO2 print on the environment. Learning validity and value of a resource has become a major part of teaching personal and social responsibility in today's social media world. In this class we look at claims that are made and look at the validity to determine if it is science research based or merely opinion. This valuable part of the class not only educates the students about fact vs theory, it gives them more responsibility as they go on to become scientists, or even businessmen whose statements about science need to be valid and not merely opinion. Students have to collaborate and use teamwork in the labs as the course data is often synthesized for the total research data to be relevant. The best example of this is when the data is aggregated from the entire class and they look at mean values and not just individual values. The diversity of how to handle civic issues and world concerns is a vital area for the course and students have the effects of science, but have to look at the effect of the research on people and society. This is an easy one today as some of the examples in this class include inference.

---

**D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

<https://www.mesalands.edu/wp-content/uploads/2020/01/SLAC-Annual-Report-2018-19-Final.pdf>

---

This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).

h G m B

**Date**

Mar 18 2021

## Upload Assessment

**Completed** - Mar 18 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

[CHEM 1216 sample assessment](#)

**Filename:** CHEM\_1216\_sample\_assessment.pdf **Size:** 35.0 kB

## Upload Rubric

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

# Application: 0000001454

Robert Moore - Robert.Moore@rm01.enmuros.cc.nm.us  
NM General Education Curriculum

### Summary

**ID:** 0000001454

**Status:** Under Review

**Last submitted:** Mar 25 2021 11:05 AM (MDT)

## Application Form

**Completed** - Mar 25 2021

## Application Form



The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

### Contact Information

Name	Robert Moore
Title	Assistant VP
Phone	5756247001
Email	<a href="mailto:robert.moore@roswell.enmu.edu">robert.moore@roswell.enmu.edu</a>

### Submitting Institution

Name of HEI	ENMU-Roswell
Submitting Department	Science

### Chief Academic Officer

Name	Annemarie Oldfield
Email	<a href="mailto:annemarie.oldfield@roswell.enmu.edu">annemarie.oldfield@roswell.enmu.edu</a>

### Registrar

Name	Linda Neel
Email	<a href="mailto:linda.neel@roswell.enmu.edu">linda.neel@roswell.enmu.edu</a>

### Is this application for your entire system (ENMU, NMSU, & UNM)?

No

### Institutional Course Information

Prefix	BIOL
Number	2110
Title	Principles of Biology: Cellular and Molecular Biology
Number of credits	3

### Was this course previously part of the New Mexico General Education curriculum?

Yes

### Co-requisite Course

Prefix	BIOL
Number	2110L
Title (if applicable)	Principles of Biology: Cellular and Molecular Biology Laboratory

### New Mexico Common Course Information

Prefix	BIOL
Number	2110
Name	Principles of Biology: Cellular and Molecular Biology Lecture + Lab

### A. Content Area and Essential Skills

## To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Science - Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning

## B. Learning Outcomes

### List all common course student learning outcomes for the course.

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

1. Apply the scientific method to develop and evaluate hypotheses and propose an experiment to test a scientific hypothesis related to cell biology and molecular biology.
2. Describe the distinguishing characteristics of various biological molecules (water, carbohydrates, lipids, proteins, and nucleic acids). (HED Area 3, Competency 3)
3. Compare and contrast the basic features of cells and how prokaryotic cells differ from eukaryotic cells. (HED Area 3, Competency 3)
4. Understand how organisms maintain homeostasis in a dynamic environment.
5. Describe how biological molecules are acquired and how they are subsequently used to meet the metabolic needs of organisms. (HED Area 3, Competency 3)
6. Describe membrane structure and function.
7. Describe and analyze the nature of bio-energetic transformations and metabolism within the cell.
8. Describe the processes of cellular respiration and photosynthesis.
9. Analyze with specific detail the processes of DNA replication, transcription, and translation.
10. Analyze with specific detail the types, mechanisms, and regulation of cellular division.
11. Assess important applications of cell and molecular biology to energy use, medicine, and other day-to-day processes. (HED Area 3, Competency 1,3,4,5)

## Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

NA

### C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

#### **Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.**

*In this box, provide a narrative that explains how the proposed course addresses **all** of the components of critical thinking.*

Evidence Acquisition: The course's instruction addresses the NMHED Science Content area, and developing the essential skill Critical Thinking- Evidence acquisition as follows. Since critical thinking is centric in the sciences, students will receive weekly SLO(s)-focused foundational knowledge (a prerequisite for critical thinking and problem-solving.) Students will be guided and encouraged to develop the critical skills of acquiring and evaluating experimental evidence by completing weekly modules of pedagogically varied activities. Students will develop the skill of acquiring evidence working on 1 comprehensive assignment, a Reflection Paper on the Central Dogma of Molecular Biology. Students will be developing the foundational knowledge required for this assessment, through 13 weeks of instructor-provided lecture sessions, Active Learning Exercises ALEs), online homework animations and activities with post assignment quiz, and an Adaptive Learning Curve Module. Preparatory topics covered

will include DNA biology, gene expression (transcription, translation), molecular medicine and genetic diseases. In the Reflection paper, students will gain understanding, and will increase their knowledge and awareness of how molecular biology impacts the world they live in. Students will develop critical thinking skills by answering the question, “Is the Theory of Molecular Biology Indisputable? Support your response with 3 reference citations.” By reflecting on their personal health, the health of their family members and global health (living during a pandemic), students will gain awareness of the key role genetics plays. For example, a student with a family history of breast cancer will develop the skill of evidence acquisition, by performing focused-literature searches on that subject. To acquire the evidence, students will develop an effective search strategy. Searching for the evidence-based literature is an iterative process and will involve one or more of these strategies: identifying synonyms and subject terms for each concept, trying broad and narrow concept searching, adding and subtracting concepts to decrease or increase, respectively, the number of results, and filtering results according to particular parameters such as dates published, type of article, etc.). Students will be guided and encouraged, in developing the skill of evidence acquisition, by following instructor-guided instructions how to “mine the literature” for evidence, and how to locate information from course-provided content/readings. Importantly, this assessment maps to their concurrent course BIOL 2110L’s laboratory module, Introduction to APA format and Writing in the Sciences. Student learning will be rubric-assessed on their ability to prepare a personal reflection, which will demonstrate 1. a foundational understanding of gene expression, 2. the skill to acquire and evaluate evidence supporting their argument (pro/con) on the Central Dogma of Molecular Biology, 3. the skill to acquire and evaluate course- and outside source- information on the role genetics plays in family, community and global human health conditions (maps to SLO 11 and Personal & Social Responsibility skill-set), and 4. the writing skill to communicate using APA format. Student learning will be assessed again in a cumulative laboratory final exam. Evidence of students’ progressive learning, and mastery of SLOs and skills is tracked throughout the course, and assessed at end of the course.

**Quantitative Reasoning. Communication/Representation of Quantitative Information; Analysis of Quantitative Arguments; and Application of Quantitative Models**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of quantitative reasoning.*

**Application of Quantitative Methods:**

The course's instruction addresses the NMHED Science Content area, and developing the essential skill Quantitative Reasoning: Application of Quantitative Methods as follows. Since quantitative analysis is centric in the sciences, students will develop this skill, by first increasing their understanding of SLO(s)-focused foundational knowledge (a prerequisite for critical thinking and problem-solving.) Students will develop critical thinking skills through-out the course, by completing weekly modules of pedagogically varied activities. Activities will include assigned reading, lecture sessions, Active Learning Exercises (ALEs), viewing animations, and short videos and Adaptive Learning Curve modules. Students will develop the skill of applying quantitative methods within the Chemistry and Thermodynamics Units. In the Chemistry unit, students will complete weekly real-world biology Data-in-depth homework assignments and post-assignment assessments (i.e. multiple choice quiz). In one assignment on food quality, students will develop the skills of applying isotope models to real-world biology challenges (Determining the geographical source of McDonald's beef in China). Students will analyze carbon isotope data tables, plot data in a graph, and draw conclusions using line-moving, and sorting activities. In the Thermodynamics, Enzymes and Cellular Metabolism units, students will gain understanding and knowledge in determining the quantitative relationship(s) between biochemical reactions, cellular energy, and metabolism. Students will develop the skill in multiple ways (i.e. identifying a chemical reaction as endo- or exo-thermic, calculating standard free energy changes ( $\Delta G$ ) in ATP-coupled reactions, analyzing energy of activation ( $E_a$ ) graphs in the presence and absence of enzyme catalysts, and by tracking cumulative standard free energy changes throughout the process of cellular respiration). Student learning will be assessed in weekly on-line animation/activity-specific quizzes, monthly summative chapter quizzes, and in a course cumulative final exam. Students will receive instant scoring and corrective feedback after completing on-line homework assignments and quiz assessments, which will further aid them in developing their quantitative reasoning skills.

**Personal & Social Responsibility. *Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global***

*In this box, provide a narrative that explains how the proposed course addresses 2 of the components of personal & social responsibility.*

Ethical Reasoning: The course's instruction addresses the NMHED Science Content area, and developing the essential skill set Personal & Social Responsibility-Ethical Reasoning (maps to SLO 11) as follows. Students will develop this skill set throughout the course, by increasing their knowledge of how biology intersects with their daily lives. Students will develop the Personal & Social Responsibility skill-set in the Gene Mutation and Molecular Medicine Unit, as follows. Students will complete a weekly module of pedagogically varied activities. Activities will include assigned reading, lecture sessions, Active Learning Exercises (ALEs), an Adaptive Learning Curve module and online homework assignments (animations, activities). Students will receive instant scoring and corrective feedback after completing on-line homework assignments and quiz assessments, which will further aid them in developing their skills. Students will develop the critical skill Ethical Reasoning in the assignment, Reflection Paper: Central Dogma of Molecular Biology (maps to critical thinking skill-set), in an ALE Investigating Life: The Angelina Jolie Effect, and in a breast cancer BRCA 1-focused lecture session (based on personal breast cancer research). Student learning will be assessed in an Ethics of Breast Cancer Preventive Mastectomy short-essay quiz, and in course final exam questions.

---

#### **D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

[https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan\\_ENMURoswell.pdf](https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan_ENMURoswell.pdf)



This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).

A handwritten signature in black ink on a light gray background. The signature appears to be "Rm / Amd" written in a cursive, stylized font.

**Date**

Mar 22 2021

## Upload Assessment

**Completed** - Mar 22 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

[D](#)

**Filename:** D\_Investigating\_Life\_BRCA\_1\_and\_Brea\_EevKbFG.pdf **Size:** 286.4 kB

## Upload Rubric

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

# Application: 0000001540

Jack McCaw - jack.mccaw@enmu.edu  
NM General Education Curriculum

### Summary

**ID:** 0000001540

**Status:** Under Review

**Last submitted:** Apr 2 2021 10:02 AM (MDT)

# Application Form

Completed - Apr 2 2021

## Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

### Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

### Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

### Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.

- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

### Contact Information

Name	Jack McCaw
Title	Department Chair
Phone	5753151152
Email	<a href="mailto:jack.mccaw@enmu.edu">jack.mccaw@enmu.edu</a>

### Submitting Institution

Name of HEI	Eastern New Mexico University - Ruidoso
Submitting Department	Math and Science

### Chief Academic Officer

Name	Coda Omness
Email	<a href="mailto:Coda.Omness@enmu.edu">Coda.Omness@enmu.edu</a>

### Registrar

Name	Amy Means
Email	Amy.Means.enmu.edu

### Is this application for your entire system (ENMU, NMSU, & UNM)?

No

## Institutional Course Information

Prefix	ANTH
Number	1120C
Title	Introduction to Archaeology Lecture and Lab
Number of credits	4

## Was this course previously part of the New Mexico General Education curriculum?

Yes

## Co-requisite Course

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)

## New Mexico Common Course Information

Prefix	ANTH
Number	1120C
Name	Introduction to Archaeology Lecture and Lab

## A. Content Area and Essential Skills

## To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Science - Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning

## B. Learning Outcomes

### List all common course student learning outcomes for the course.

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

1. Understand the history of archaeology, with an emphasis on processual archaeology.
2. Understand and apply fundamental theoretical and methodological concepts of the archaeology discipline.
3. Provide hands-on experience with archaeological data collection and analysis methods.
4. Develop skills that will enable students to serve as crew members for supervised archaeological field and laboratory work.
5. Provide students with the tools to describe the nature of archaeological remains.
6. Synthesize archaeological data to make informed and educated interpretations.
7. Effectively comprehend and communicate knowledge about archaeological ethics and contemporary heritage management efforts and organizations

### Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

None

## C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

**Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of critical thinking.*

Students learn about the history of archaeology and the people that shaped the discipline. The methodology and theories that have been changing through the centuries will be discussed so that a contextual understanding of their development is understood. Concepts such as low-level, middle range, and high-level theory are introduced to students along with the differences between processual and postprocessual archaeological paradigms and the major proponents for each. Cultural areas and technology are also discussed as to how environments effect hunting patterns, the diet of the people in an area, and how it impacts their mobility. Techniques such as tree-ring dating, radiocarbon dating, potassium-argon and strontium are discussed so that students understand what resources are available for chronology building and interpretations of stratigraphy.

Students write essays using the knowledge acquired to relate about the topic of pioneers in the archaeological field such as Margaret Mead, Lewis Binford, Leslie White, Ruth Benedict, and Janet Spector and the different cultural areas and methods or theories that they proposed and how they helped shape the discipline and our understanding of a specific cultural group (problem setting). Students choose a cultural area of interest and then research the specific culture's technology, environment, diet, mobility strategy, family patterns, and landscape (evidence acquisition). Students identify how the culture's concepts are used currently in the field and how interpretations have changed through time (evidence evaluation). Students then form conclusions about the appropriateness and benefit of the methods they have researched (reasoning/conclusion).

**Quantitative Reasoning. Communication/Representation of Quantitative Information; Analysis of Quantitative Arguments; and Application of Quantitative Models**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of quantitative reasoning.*

Students setup excavation units to learn critical thinking skills that include interpretation of data and artifacts, differences between prehistoric and historic objects, how to measure in three dimensional spaces and place objects within context in that space. Each excavation unit, a 1 m x 1 m square, is set up for a pair of students to work as a team mapping, digging, screening the dirt, and writing an interpretive summary of what they found in their unit (communication of quantitative information). The units are first mapped in “plan” view to show the beginning of excavation, digging is then done in 10 cm levels unless there is a natural or cultural stratigraphic break within their excavation unit. During the digging process the soil is analyzed for Munsell color, inclusions, compactness, roots, and rodent burrows. This enables students to interpret what is going on within their area and why artifacts may have shifted or deteriorated, which is called site formation processes (analysis of quantitative information). Once an artifact is encountered the students then pedestal around it for collection and profile mapping. Artifacts include lithic debitage, prehistoric ceramics, pithouse floors, shell beads, historic cans, glass, and various debris older than fifty years. Each unit is terminated to two sterile levels below cultural deposits or 120 cm. A summary of artifacts or features found is then written so the unit can be tied in with the rest of the site. What was found, at what depth, disturbances in the soil, and cultural significance are recorded so the site record can be evaluated as a whole (application of quantitative information).



**Personal & Social Responsibility. Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global**

*In this box, provide a narrative that explains how the proposed course addresses 2 of the components of personal & social responsibility.*

Students work collaboratively in both lecture and laboratory assignments throughout the course. Student groups are sometimes assigned and sometimes are student driven and organized. Student groups decide on individual responsibilities and hold each other accountable in performing group tasks. For example, students learn and practice using the scientific process to evaluate the site formation processes within their excavation unit and must come to a consensus with their partner. In this process students learn to collaborate and listen to different points of view to write a summary of their work. (collaboration, teamwork and accountability). Student watch videos and write a paper on how the interpretations of historical records are checked by the scientific methods in archaeology to write a more balanced and correct version of events, such as the differing versions of the Battle of the Little Bighorn or the death of the Vikings in Greenland. Students will learn that cultural knowledge and oral history can be just as an important avenue of inquiry and data gathering as excavation. This allows students the opportunity to question conflicting stories and determine how each thread is used to weave together an accurate account of an historical event.

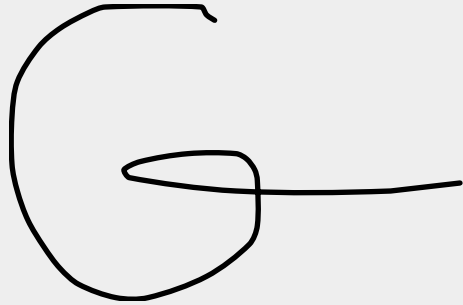
Topics discussed in class include the development of cultural resource management, historic preservation laws, Native American Grave Protection Act of 1990, and how humanistic style of inquiry emphasizes the dignity and worth of each cultural unit. The ethics of the archaeological profession are discussed and how they were and were not used in the past. Public outreach, through attending talks and becoming members of the local archaeology outreach programs, such as Jornada Research Institute, are also a requirement for students to be engaged in their local communities (ethical reasoning).

#### D. Assessment Plan (Must be on file with HED by August 1, 2019)

Link to Institution's General Education Assessment Plan

In Progress

**This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).**



**Date**

Apr 1 2021

## Upload Assessment

**Completed** - Apr 1 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

### [Greenland and Methodology assignment](#)

**Filename:** Greenland\_and\_Methodology\_assignment.pdf **Size:** 46.6 kB

## Upload Rubric

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

# Application: 0000001473

Robert Moore - Robert.Moore@rm01.enmuros.cc.nm.us

## Summary

**ID:** 0000001473

**Status:** Under Review

**Last submitted:** Mar 24 2021 04:06 PM (MDT)

## Application Form

**Completed** - Mar 24 2021

## Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

# Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

## Contact Information

Name	Robert Moore
Title	Assistant VP
Phone	5756247001
Email	<a href="mailto:robert.moore@roswell.enmu.edu">robert.moore@roswell.enmu.edu</a>

## Submitting Institution

Name of HEI	ENMU-Roswell
Submitting Department	Humanities

## Chief Academic Officer

Name	Annemarie Oldfield
Email	<a href="mailto:annemarie.oldfield@roswell.enmu.edu">annemarie.oldfield@roswell.enmu.edu</a>

## Registrar

Name	Linda Neel
Email	<a href="mailto:linda.neel@roswell.enmu.edu">linda.neel@roswell.enmu.edu</a>

**Is this application for your entire system (ENMU, NMSU, & UNM)?**

No

**Institutional Course Information**

Prefix	HUMN
Number	2110
Title	Introduction to World Humanities II
Number of credits	3

**Was this course previously part of the New Mexico General Education curriculum?**

Yes

**Co-requisite Course**

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)

**New Mexico Common Course Information**

Prefix	HUMN
Number	2110
Name	Introduction to World Humanities II

**A. Content Area and Essential Skills**

## To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Humanities - Information & Digital Literacy, Critical Thinking, Personal & Social Responsibility

## B. Learning Outcomes

### List all common course student learning outcomes for the course.

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

1. Identify and analyze key ideas, contributions, and expressions from the civilizations, cultures, and time periods in the areas of the arts, sciences, politics, religion, architecture, music, and philosophy examined in the course.
2. Recognize and distinguish between ideas, contributions, and expressions of various cultures and civilizations as well as identify connections.
3. Demonstrate knowledge of particular examples introduced in the course.
4. Demonstrate critical skills in interpretation, discussion, and in composing creative, analytical and/or objective responses to the material.

### Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

NA

## C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

### **Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.**

*In this box, provide a narrative that explains how the proposed course addresses **all** of the components of critical thinking.*

[\*Problem Setting:] During the semester, students enjoy an interdisciplinary introduction to the cultural contributions and expressions of modern civilizations from the Renaissance to Baroque and Modern eras across Europe and including China, Japan, Africa, and parts of the Middle East; students approach religious, philosophical, and artistic elements of these cultures through reading, reflective writing, shorter essays, presentations, and a longer researched essay. Students participate in individual and group activities while exploring modern cultures and defined eras and share their reactions and experiences through various written documents, including focused annotation.

[Evidence Acquisition:] Students access and consider evidence through their assigned course: texts, recordings, handouts, the library's general collection, and the University's numerous databases (e.g., EBSCO, Academic Search Complete, ProQuest, JSTOR, etc.), and faculty-provided material to support their investigation and study. Like their reflective writing, several assignments require them to rally information they have accessed about emerging religious practices, political world-views, and technological advances. The short reading assignments about a range of topics allow students to gather more profound and diversified information about modern cultures.

[\*Evidence Evaluation:] Discussions and written assignments compel students to respond to primary texts, other students' positions, as well as professional critiques/reviews; the discussions and written responses model techniques of textual and cultural evaluation. Interactions with the faculty member and

other students allow students to weigh observations and conclusions, to test the mettle of their thinking. During discussions (about Europe's embrace of the patronage system and the explosion of arts, for example), students weigh the value of primary texts (including literary sources) and other students' opinions. For many of the statements, students make (in discussions, for example, about Spain's civil war), we emphasize currency, relevance, authority, accuracy, and purpose. Students are working on creating their own opinions and understanding of the material; many assignments make conscious the techniques of evaluation necessary to assure thoughtful and hearty presentation (in one essay, they evaluate and draw upon a range of sources to generate their thesis about a crucial moment in cultural history).

[\*Reasoning/Conclusion(s):] Students arrive at defensible, relevant, and interesting conclusions based on sound and creative premises in their essays, presentations, short assignments, projects, and journaling/annotation. When we move forward in time, the changing of religion (Protestant and Catholic) will shape how civilization behaves. Moving away from faith and science also demonstrates how critical thinking will change politics from autocratic to democratic. All these areas must be analyzed to see how they are built on top of one another or revolted against. They are guided to ask questions, posit answers, and support their answers through different deductive reasoning and Socratic teaching strategies. Repeated exposure to primary and secondary sources allows students to engage examples of good and flawed reasoning, logical fallacies, misguided conclusions, affirming organization, and general patterns of argument valuable for college-level academic discourse. Their final essay, for example, asks them to pose a question, reason through an answer, craft a thesis, and support a conclusion.

**Personal & Social Responsibility. *Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global***

*In this box, provide a narrative that explains how the proposed course addresses 2 of the components of personal & social responsibility.*

[\*Intercultural Reasoning and Intercultural Competence:] During the semesters, through readings, research, and discussions, students encounter a variety of socio-cultural issues in the literature across time periods and geographical areas; as a declared interdisciplinary course, each text and assignment seeks to develop intercultural competence by drawing comparisons, showing changes, and otherwise



contrasting multiple unique cultures. Students examine how ancient socio-cultural practices inform and are influenced by the development of other societies, primarily through their readings but also assignments like the reflective writings that ask students to consider, for example, how the Middle East's Christian-Muslim conflict shaped Africa's development. Student progress is measured in part on their ability to recognize differing artistic, political, and religious manifestations among the many cultures in the modern world and reflect their understanding in essays, projects, and presentations; many of the assignments ask them to engage, react to, and otherwise consider issues most relevant to ethical and social responsibility—such as the colonialism, religious extremism, and the rise of the middle class / industrial world—including through their annotation/journaling, reflective essays, and projects.

[\*Civic Knowledge and Engagement—Local and Global:] Across the semester, students tackle modern socio-cultural, artistic, religious, scientific, and political issues; these explorations are anchored in practical, real-world examples and creative problem-solving. We might consider, for example, how Enlightenment thinking informs, contradicts, and forms the basis for modern political practice and attitudes. Seeking a kind of cultural literacy, students investigate the local and global contexts surrounding the creation, distribution, and context of their assigned primary sources—drawing connections across diverse regions, time periods, and societies (one project, for example, asks students to answer the question, what is life like for a citizen of Japan and Germany at the same point in history?). Students strive to contextualize academic discourse with global movements, structures, and attitudes. Nearly every primary text embraces the conversation of civic responsibility either as a critique, a model, or an investigation of communities in action; the texts provide the leaping-off point for discussions about how the individual conflicts with, correspondent to, or estranged from civic duties, responsibilities, and obligations; their annotation and essays allow them to reflect and sharpen their understanding.

---

**Information & Digital Literacy. *Authority and Value of Information; Digital Literacy; Information Structure; and Research as Inquiry***

*In this box, provide a narrative that explains how the proposed course addresses 3 of the components of digital literacy.*

[\*Digital Literacy / Information Structures:] Students master Blackboard both to initiate and participate in several course discussions, communicate with their classmates and instructor, check their grades, and receive course-wide and institutional updates. Several class meetings, office hours, and individual

meetings with faculty occur over Teams or Zoom. Students engage other critical digital tools, including email, PowerPoint, web browsers, and other platforms like Instagram for communication, research, and general communication. Students have access to tutoring services and a wealth of online tutorials and services available to assist their academic progress (YouTube videos, tutorials, Purdue Owl, etc.). These digital tools manifest in their assignments at every level.

[\*Information Structures:] Students embrace the library, both physical and virtual, as an enormous campus resource to facilitate and conduct research and investigation. They have access to and are required to interact with the library's digital resources, including e-Books, electronic articles, and electronic reference works, especially in preparation for their exams and continuous practice.

[\*Research as Inquiry:] Assignments and academic interaction in the classroom emphasize a student's ability to initiate, conduct, and arrive at conclusions through various research methods. The course teaches students, first, to ask good questions and then explore various forms of knowledge through personal and academic channels that assist them in concluding. For example, in the final essay, they can explore two significant scientific discoveries from different areas of the modern world (lenses and the circulatory system, for example) and speculate about the conditions that allowed the discoveries to happen and spread through the culture. Students learn to supplement their observations with various support, including quotations from the source material, professional commentary integrated into their writing (essays, annotations, reflections, projects), and other research. Assignments challenge students to appreciate their role in the knowledge-making adventure of academic, scholarly investigation through the process of asking questions and seeking solutions that are well-supported and engaging. Sometimes, they answer questions the faculty member proposes; sometimes, they generate their inquiry. Nearly every project or assignment requires students to embrace the "research as inquiry" model. Still, their shorter response essays especially ask them to encounter, research, and report back on a focused question.

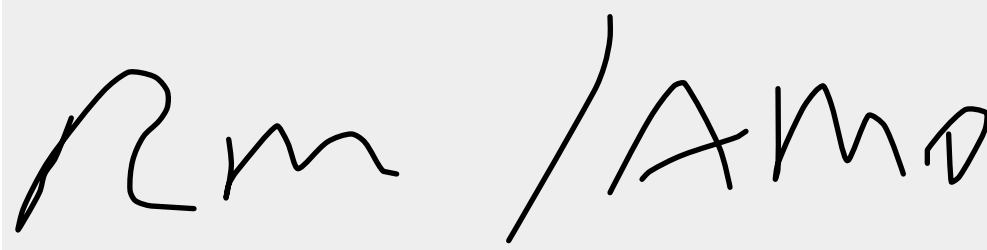
---

#### **D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

[https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan\\_ENMURoswell.pdf](https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan_ENMURoswell.pdf)

This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).

A handwritten signature in black ink, appearing to read "Rm / Amo", is displayed on a light gray background.

#### Date

Mar 24 2021

## Upload Assessment

**Completed** - Mar 24 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

### [HUMN 2110 Assignment](#)

**Filename:** HUMN\_2110\_Assignment.pdf **Size:** 421.7 kB

## Upload Rubric

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

## Application: 0000001450

Jack McCaw - jack.mccaw@enmu.edu  
NM General Education Curriculum

### Summary

**ID:** 0000001450

**Status:** Under Review

**Last submitted:** Mar 22 2021 02:52 PM (MDT)

## Application Form

**Completed** - Mar 22 2021

# Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout

the course.

### Contact Information

Name	Jack McCaw
Title	Department Chair
Phone	5753151152
Email	<a href="mailto:jack.mccaw@enmu.edu">jack.mccaw@enmu.edu</a>

### Submitting Institution

Name of HEI	Eastern New Mexico University - Ruidoso
Submitting Department	Math and Science

### Chief Academic Officer

Name	Coda Omness
Email	<a href="mailto:Coda.Omness@enmu.edu">Coda.Omness@enmu.edu</a>

### Registrar

Name	Amy Means
Email	Amy.Means.enmu.edu

### Is this application for your entire system (ENMU, NMSU, & UNM)?

No

### Institutional Course Information

Prefix	GEOL
Number	1120
Title	Environmental Geology
Number of credits	4

**Was this course previously part of the New Mexico General Education curriculum?**

Yes

**Co-requisite Course**

Prefix	GEOL
Number	1120 L
Title (if applicable)	Environmental Geology Lab

**New Mexico Common Course Information**

Prefix	GEOL
Number	1120
Name	Environmental Geology

**A. Content Area and Essential Skills**

**To which area should this course be added?**

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Science - Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning

## B. Learning Outcomes

---

**List all common course student learning outcomes for the course.**

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

1. Apply the scientific method to the field of environmental geology and differentiate between facts and opinions.
2. Recognize or describe natural cycles, for example the rock cycle, hydrologic cycle, and carbon cycle.
3. Discuss and explain the role humans play in environmental problems and in solutions to those problems; relate environmental geology to your life and its portrayal in the media.
4. Recognize, discuss or explain geologic hazards and their impact on humans and how these impacts can be minimized.
5. Recognize or explain a holistic approach to sustainability (mineral, energy, water and soil resources) on local to global scales while minimizing negative impacts on the environment.
6. Recognize, discuss or explain global environmental issues, including climate change, and the varied responses to these issues.

### Lab

1. Apply the scientific method to the field of environmental geology.
2. Identify or describe stream processes and features as part of the hydrologic cycle.
3. Describe, classify, or identify minerals.
4. Describe, classify, or identify igneous, sedimentary, and metamorphic rocks.
5. Identify and discuss the importance of Earth resources.
6. Obtain measurements and make calculations that lead to the graphical display and interpretation of data.
7. Communicate (written and/or oral) interpretations of quantitative and graphical data to evaluate environmental problems.
8. Interpret features on topographic maps.

## Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

None

---

### C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---



**Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of critical thinking.*

It is especially important for students to come away from the Environmental Geology course with the ability to think critically about the way the human population lives on and effects our planet. There is much misinformation regarding many of the resources and natural cycles of Earth that is politically and socially charged and is easily accessible to anyone via a simple Google search. The science should be what drives an observer's position; this requires the ability to think critically with the essential knowledge. An example of this (Reason/Conclusion) for the course is Assignment Twelve: Alternative Energy Sources. Students are required to read the specified chapter and then complete a comparison (pros and cons) of seven alternative energy choices which include nuclear, solar, wind, biomass, geothermal, hydro, and oceans. The comparison is based on the resource and associated technology only. And students are specifically asked not to include any political or personal views in the comparison in order to focus as objectively as possible in making optimal choices that result in sustainability. In addition, one of the Discussion posts required addresses Natural Disasters, and students are asked to determine the level preparedness of communities that have faced such occurrences (Evidence Evaluation). The focus is on looking at the results of the different teams/organizations that responded to the event and determining what was done well and how the situation could have handles better. Finally, the second lab in the course is a mineral identification lab where students need to analyze and test 16 minerals from a rock kit (Evidence Acquisition). They need to observe eight different properties and, using a chart, use their observations to predict the mineral type.

**Quantitative Reasoning. Communication/Representation of Quantitative Information; Analysis of Quantitative Arguments; and Application of Quantitative Models**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of quantitative reasoning.*

Syllabus goal: To prepare students to represent and communicate quantitative information, analyzing and formulating quantitative arguments, and solving quantitative contextual problems. This is done mostly in the thirteen labs required for the course. One example is the lab on Mass Wasting in which students use vector diagrams that simulate stable and unstable surfaces to determine if material would move down a slope (Application of Quantitative Models). They need to use a coefficient of friction to calculate the driving force versus the frictional force in understanding landslides, avalanches, and mudslides. The vectors used also include the normal force and the weight (mass times gravity) force, and the relevant angles between the vectors are identified. In Assignment Seven, students investigate climate models to understand the inputs that are used in predicting future climate scenarios (Analysis of Quantitative Arguments). The lab that addresses nuclear reaction and nuclear decay requires that students conduct a simple experiment that mimics exponential decay. They conduct the experiment using either coins or certain candies that have two distinct sides at least two times and then graph the results to see the exponential curve (Communication/Representation of Quantitative Information).

**Personal & Social Responsibility. Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global**

*In this box, provide a narrative that explains how the proposed course addresses 2 of the components of personal & social responsibility.*

This is, perhaps, the essential skill that can be considered the foundation of the course, as all the lessons address sustainability of some aspect of the phenomenal world (Sustainability and the natural human world). Both the lecture and lab specifically investigate sustainability by looking at the 17 UN Sustainable development Goals (SDGs): students are asked to study the background of the SDGs and then choose one to research that has particular interest to them (Civic discourse, civic knowledge and engagement - local and global). They also learn the vocabulary of several environmental and legal policies to see their full scope (<https://www.undp.org/content/undp/en/home/sustainable-development-goals.html>). They see the global aspects of poverty, hunger, health, education, equality, energy, economic growth/development, clean water and air, sustainable cities and communities, climate, and cooperation. (Ethical reasoning) In Assignment Thirteen, students specifically look at past environmental policies and how they have influenced current global situations. How did the policies of one country/group effect other in that country and the rest of the world (Collaboration skills, teamwork, and value systems)? Understanding the Earth's cycles and limitations from a scientific basis will guide students in making responsible personal and collective choices in production and consumption regarding natural resources.

---

#### **D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

In Progress

This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).



**Date**

Mar 21 2021

## Upload Assessment

**Completed** - Mar 21 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

### [Lab 7 Matter and Minerals](#)

**Filename:** Lab\_7\_Matter\_and\_Minerals.pdf **Size:** 3.3 MB

## Upload Rubric

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

# Application: 0000000522

Jack McCaw - jack.mccaw@enmu.edu  
NM General Education Curriculum

### Summary

**ID:** 0000000522

**Status:** Under Review

**Last submitted:** Mar 17 2021 11:05 AM (MDT)

## Application Form

**Completed** - Mar 17 2021

# Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout

the course.

### Contact Information

Name	Jack McCaw
Title	Department Chair of Math and Science
Phone	5753151152
Email	<a href="mailto:jack.mccaw@enmu.edu">jack.mccaw@enmu.edu</a>

### Submitting Institution

Name of HEI	Eastern New Mexico University - Ruidoso
Submitting Department	Math and Science

### Chief Academic Officer

Name	Coda Omness
Email	<a href="mailto:Coda.Omness@enmu.edu">Coda.Omness@enmu.edu</a>

### Registrar

Name	Amy Means
Email	Amy.Means.enmu.edu

### Is this application for your entire system (ENMU, NMSU, & UNM)?

No

### Institutional Course Information

Prefix	BIOL
Number	1215
Title	Biology for Environmental Sciences
Number of credits	4

**Was this course previously part of the New Mexico General Education curriculum?**

No

**Co-requisite Course**

Prefix	BIOL
Number	1215L
Title (if applicable)	Biology for Environmental Sciences Lab

**New Mexico Common Course Information**

Prefix	BIOL
Number	1215
Name	Biology for Environmental Sciences

**A. Content Area and Essential Skills**

**To which area should this course be added?**

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Science - Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning

## B. Learning Outcomes

---

**List all common course student learning outcomes for the course.**

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

1. Explain the importance of environmental sciences in every day's life
2. Recount historic events that shaped the environmental sciences placing them in the socioeconomic and political context.
3. Explain the relationship among the different components of the ecosystem
4. Explain and apply the scientific method in case studies or new situations of scientific enquire
5. Describe the influence of chemistry in the functioning of life and ecosystems.
6. Explain what factors affect population dynamics
7. Explain species interactions and community dynamics.
8. Explain biogeochemical cycles and how they affect life.
9. Describe energy cycles and its relevance on the ecosystem
10. Compare and contrast energy sources for human activities in terms of their impact on their environment.
11. Explain how human activities affect water and air quality and how they affect life of humans and other organisms.

---

### **Institution-specific Student Learning Outcomes**

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

None



## C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

### **Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.**

*In this box, provide a narrative that explains how the proposed course addresses **all** of the components of critical thinking.*

In Environmental Science, students are challenged with real-world problems that they must define and then are asked to identify and gather the necessary data and information to address the problems. They evaluate the credibility of the evidence and try to identify any inherent or hidden bias. Students then develop conclusions or solutions that reflect an informed, well-reasoned evaluation of the situation. Often, just like real life, there is no black-and-white answer and students' evaluations have no absolute right or wrong answer. They must justify their answers with well thought-out logic. For example, students complete a case study: The American Chestnut Tree. In this study, students identify problems with the population of American Chestnut trees in the eastern U.S. (problem setting). Students then gather data related to the disappearance of the trees and the spread of causative agents, such as blight. They make calculations about the rate of spread, the loss of monetary value, and predictions about the future loss of the species (evidence acquisition and evaluation). Based on their findings, students weigh the impact and cost of possible solutions to the problem, including evidence that would support their proposed actions (evidence evaluation). Finally, students must apply what they have learned to make an argument for or against various possible actions for saving the species (reasoning/conclusion). Students are assessed through the preparation of a lab report including problem, data, and conclusions.

**Quantitative Reasoning. Communication/Representation of Quantitative Information; Analysis of Quantitative Arguments; and Application of Quantitative Models**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of quantitative reasoning.*

Student assignments in Environmental Science frequently incorporate quantitative reasoning skills. Students work in teams to collect data, analyze their data, and share findings with the class. Students perform many laboratories where numerical data is collected and analyzed, including population dynamics, species diversity, and energy use. One assignment was to collect and analyze diversity data of a community. Students then calculate the Shannon-Weiner Diversity Index and compare two areas' species richness, evenness, and diversity indices to determine which area was more diverse (analysis of quantitative arguments). Then students evaluate their data graphically, determining the appropriate graphs to illustrate their data (expression of quantitative data). Finally, students applied the information to current real-world problems and situations, including a comparison of population data from two similar ecosystems from two different states (Texas and New Mexico). Data from state wildlife agencies are compared, analyzed, and then students evaluate the differences in management goals, priorities, and human interests between the two different states (application of quantitative data). Students are assessed through a lab report, including raw data, graphical data, and their reasoning associated with perceived differences in the communities studied (application of quantitative models).

**Personal & Social Responsibility. Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global**

*In this box, provide a narrative that explains how the proposed course addresses 2 of the components of personal & social responsibility.*

In order to incorporate personal and social responsibility into Environmental Science, students read an article called Easter Island's End by Jared Diamond (Discover Magazine, 1995). In this article, students are challenged to compare Easter Island to present day Earth and asked to consider whether we are going down the same path of self-destruction as the islanders. Throughout the semester, students are asked to evaluate their personal choices and reflect on the lesson of Easter Island. Students write and participate in discussions of world population growth, climate change, world water shortages, and carbon footprints. Throughout the semester, students examine issues of sustainability and how political, personal, and economic choices affect environmental sustainability. (sustainability and the natural and human worlds). Students work in small groups to share opinions and priorities in their choices. Team leaders are responsible for discussion and elaboration of their team's conclusions.

"Tragedy of the Commons", a principal tenet of Environmental Science, was first proposed and promoted by Garrett Hardin. However, Garrett Hardin has been described by the Southern Poverty Law as a "White Nationalist" due to his anti-immigrant beliefs stemming from the idea of Tragedy of the Commons. In contrast, Elinor Ostrom, an American political economist, won the Nobel Prize in Economics for her "Analysis of economic governance, especially the Commons". In order to promote social responsibility, students are asked to conduct research on both scientists' ideas and to evaluate their conflicting views (ethical and intercultural reasoning). Students are assessed through writing a 5-paragraph essay about their findings and conclusions.

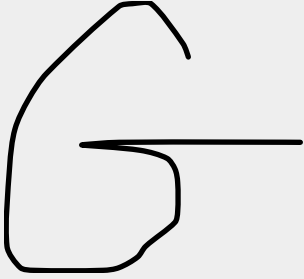
---

#### **D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

In Progress

This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).



**Date**

Mar 16 2021

## Upload Assessment

**Completed** - Mar 16 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

### [Case Study\\_Am Chestnut](#)

**Filename:** Case\_Study\_Am\_Chestnut.pdf **Size:** 755.5 kB

## Upload Rubric

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

# Application: 0000001458

James Scott - james.scott@nmt.edu  
NM General Education Curriculum

### Summary

**ID:** 0000001458

**Status:** Under Review

**Last submitted:** Mar 25 2021 03:19 PM (MDT)

## Application Form

# Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.

- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

### Contact Information

Name	(No response)
Title	(No response)
Phone	(No response)
Email	(No response)

### Submitting Institution

Name of HEI	New Mexico Institute of Mining and Technology
Submitting Department	Physics

### Chief Academic Officer

Name	Dr. Steve Simpson
Email	<a href="mailto:steve.simpson@nmt.edu">steve.simpson@nmt.edu</a>

### Registrar

Name	James Scott
Email	<a href="mailto:james.scott@nmt.edu">james.scott@nmt.edu</a>

### Is this application for your entire system (ENMU, NMSU, & UNM)?

(No response)

## Institutional Course Information

Prefix	PHYS
Number	122
Title	Calculus-based Physics II
Number of credits	4

## Was this course previously part of the New Mexico General Education curriculum?

Yes

## Co-requisite Course

Prefix	PHYS
Number	122L
Title (if applicable)	Calculus-based Physics II Lab

## New Mexico Common Course Information

Prefix	PHYS
Number	1320
Name	Calculus-based Physics II

## A. Content Area and Essential Skills

## To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Science - Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning

## B. Learning Outcomes

### List all common course student learning outcomes for the course.

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

#### Student Learning Outcomes

Upon completion of this course, the student will be able to:

1. Apply the concepts of electric charge, electric field and electric potential to solve problems.
2. Sketch the electric field in the vicinity of point, line, sheet, and spherical distributions of static electric charge.
3. Sketch the magnetic field in the vicinity of line, ring, sheet, and solenoid distributions of steady current.
4. Describe the relationship between electric field and electric potential.
5. Calculate the Lorentz force on a moving charge for simple geometries of the fields and use it to analyze the motion of charged particles.
6. Apply the integral forms of Maxwell's equations.
7. Calculate the energy of electromagnetic fields.
8. Analyze DC circuits.



## Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

None

---

### C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

***Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.***

*In this box, provide a narrative that explains how the proposed course addresses all of the components of critical thinking.*

In the Phys 1320 lab, students carry out evidence acquisition as they make measurements of multiple aspects of electrical and magnetic systems, including forces, voltages, currents, and so on. Evidence evaluation involves making calculations and computations with those measurements, understanding the accuracy and precision of the measurements, what sources of uncertainty in the measurements might be, and how those uncertainties propagate through the analysis. Students carry out reasoning and conclusion as they discuss and comment on how well their measurements and calculations compare to well-established physical principles, and what might be the impact of complications that are present in the real universe but not in the simple theoretical models.

In Phys 1320, students carry out problem setting as they interpret physical scenarios and specific situations, making connections to more abstract physical principles and choosing the appropriate models that should be applicable to these scenarios. They identify known and unknown quantities and strategies for obtaining the unknown quantities from the known ones. In the lecture setting, evidence acquisition, evidence evaluation, and reasoning also involve carrying out the appropriate mathematical operations (algebra, calculus, etc) necessary to obtain the desired quantities. Students carry out reasoning and conclusion as they perform basic consistency checks on their answers as a means of identifying errors.

Assessment in the lab courses is carried out on written lab reports which include the measured data, explanations of the analysis steps carried out and commentary on the conclusions of the experiment. Rubrics include the accuracy and precision of the measurements and the logical analysis steps, as well as the clarity of explanations. Assessment in the lecture portion of the class is carried out on homework problems, quizzes and examinations; rubrics involve the accuracy with which students have identified the relevant physical principles applied to a specific situation and the precision of the necessary mathematical manipulations.

**Quantitative Reasoning. Communication/Representation of Quantitative Information; Analysis of Quantitative Arguments; and Application of Quantitative Models**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of quantitative reasoning.*

In physics, critical thinking and quantitative reasoning are strongly overlapping skills because the kind of evidence we work with is quantitative. Thus, many of the skills described in the previous narrative apply here as well. Assessment comments from the previous narrative also apply here.

In Phys 1320 lab, students carry out the communication & representation of quantitative information by constructing data tables, charts and graphs with their measured and calculated quantities. These tables and charts form part of their written lab reports. Grading rubrics involve assessment of the clarity and completeness of information, specifying whether measurements have units, tables have headers and explanatory information, graphs have appropriate axis labels, and so on.

The application of quantitative models and the analysis of quantitative arguments are the very essence of all physics courses. In Phys 1320 lab the students investigate important principles by making measurements of dynamical systems and using those measurements in calculations that test whether quantitative models (e.g. the conservation of energy or angular momentum) apply. In Phys 1320 the students complete exercises and activities that require them to use quantitative models to connect things they want to know (or make predictions about) to things that they can measure.

**Personal & Social Responsibility. *Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global***

*In this box, provide a narrative that explains how the proposed course addresses **2** of the components of personal & social responsibility.*

The aspects of personal and social responsibility that are most applicable in this physics course involve ethical reasoning and collaboration skills. Phys 1320 labs are done in teams of four, with students taking different roles such as recording data and setting up the equipment, to ensure that all students have opportunities to do all roles. Job rotation is appropriate in these collaborative projects where all participants have roughly equal skill levels and the point is to gain experience with all skills. Students negotiate amongst themselves as they translate written instructions into action, and the data are shared amongst the team members. Students are then allowed to work together on their analysis but are expected to write up their results independently.

All academic courses produce opportunities for ethical reasoning and situations in which students may be confronted with ethical dilemmas both large and small. Some ethical issues particularly related to the Phys 1320 lab involve the practice of doing science. Scientific work involves comparing models or hypotheses to data and/or the associated outcomes of computations based on those data. Scientists (and students in Phys 1320 labs) should accurately report the outcomes of their experiments even if they contradict what we had expected or hoped to find. This situation frequently happens in the Phys 1320 labs and students are encouraged not to brush these events under the rug but to propose reasonable hypotheses about why things didn't happen the way we expected.

---


**D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

<https://www.nmt.edu/academicaffairs/assessment/gened.php>

---

This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).

A large, stylized handwritten signature in black ink on a light gray background. The signature is composed of several loops and a long, sweeping horizontal stroke that extends towards the right edge of the box.

**Date**

Mar 24 2021

## Upload Assessment

**Completed** - Mar 24 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

[Phys1320\\_exam](#)

**Filename:** Phys1320\_exam.pdf **Size:** 2.3 MB

## Upload Rubric

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

**Application: 0000001514**

Robert Moore - Robert.Moore@rm01.enmuros.cc.nm.us  
NM General Education Curriculum

## Summary

**ID:** 0000001514

**Status:** Under Review

**Last submitted:** Mar 29 2021 01:58 PM (MDT)

## Application Form

**Completed** - Mar 29 2021

## Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course

# Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

## Contact Information

Name	Robert Moore
Title	Assistant VP
Phone	5756247001
Email	<a href="mailto:robert.moore@roswell.enmu.edu">robert.moore@roswell.enmu.edu</a>

## Submitting Institution

Name of HEI	ENMU-Roswell
Submitting Department	Science

## Chief Academic Officer

Name	Annemarie Oldfield
Email	<a href="mailto:annemarie.oldfield@roswell.enmu.edu">annemarie.oldfield@roswell.enmu.edu</a>

## Registrar

Name	Linda Neel
Email	<a href="mailto:linda.neel@roswell.enmu.edu">linda.neel@roswell.enmu.edu</a>

**Is this application for your entire system (ENMU, NMSU, & UNM)?**

No

**Institutional Course Information**

Prefix	BIOL
Number	1110
Title	General Biology
Number of credits	3

**Was this course previously part of the New Mexico General Education curriculum?**

Yes

**Co-requisite Course**

Prefix	BIOL
Number	1110L
Title (if applicable)	General Biology Lab

**New Mexico Common Course Information**

Prefix	BIOL
Number	1110
Name	General Biology Lecture + Lab

**A. Content Area and Essential Skills**



**To which area should this course be added?**

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Science - Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning

---

**B. Learning Outcomes**

---

## List all common course student learning outcomes for the course.

Common Course Student Learning Outcomes (find Common Course SLOs at:

<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

### Lecture

1. Explain the value of the scientific method as a means for understanding the natural world and for formulating testable predictions.
2. Explain how chemical and physical principles apply to biological processes at the cellular level.
3. Understand basic concepts of cell biology.
4. Understand that all organisms share properties of life as a consequence of their common ancestry.
5. Understand fundamental processes of molecular biology.
6. Understand the mechanisms of evolution, including natural selection, genetic drift, mutations, random mating, and gene flow.
7. Understand the criteria for species status and the mechanisms by which new species arise.
8. Understand methods for inferring phylogenetic relationships and the basis for biological classification.
9. Recognize the value of biological diversity (e.g., bacteria, unicellular eukaryotes, fungi, plants, and animals), conservation of species, and the complexity of ecosystems.
10. Explain the importance of the scientific method for addressing important contemporary biological issues.

### Laboratory

1. Employ critical thinking skills to judge the validity of information from a scientific perspective.
2. Apply the scientific method to formulate questions and develop testable hypotheses.
3. Analyze information/data and draw conclusions.
4. Operate laboratory equipment correctly and safely to collect relevant and quality data.
5. Utilize mathematical techniques to evaluate and solve scientific problems.
6. Recognize biodiversity in different ecological habitats and communities of organisms.
7. Communicate effectively about scientific ideas and topics.

## Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

NA

---

### C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

**Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of critical thinking.*

All essential skills are exercised during as an application of the scientific method in General Biology lecture and laboratory course. Students practice critical thinking skills in several contexts and assessments: class discussions, viewing videos, reading assigned articles, discussion postings, laboratory exercises and formal exams.

**Problem Setting**

Problem setting is a part of scientific inquiry and an initial step in the scientific method. In lecture students practice problem setting by close reading a timely news article or video then participating in a class discussion, discussion posting or answering an essay-style question on a formal exam. The students identify key talking points in the article/video and develop the over-all argument that summarizes the problem. In laboratory, students practice problem setting by making observations and considering what is already known vs. what do we need to know within a biological experimental setting.

**Evidence Acquisition and Evaluation**

Students practice evidence acquisition by researching outside sources for facts and other substantiation to support their idea about a topic or opinion. Extending what was described in the previous section, the article/video sets up a context in which students must develop an informed, evidence-based opinion around the topic. In laboratory, students gather evidence to support a hypothesis and gather evidence while conducting an experiment. Students review data, interpret results and evaluate whether or not those results support their working hypothesis.

**Reasoning/Conclusion**

Students utilize reasoning skills to when addressing open-ended questions asking them to discuss and summarize their own conclusions about a topic. Discussion postings allow students ample time to craft a carefully considered argument or response. In a laboratory setting, students review all of their progress during a lab exercise and draft lab report to summarize key interpretations, data sets and conclusions.

**Quantitative Reasoning. Communication/Representation of Quantitative Information; Analysis of Quantitative Arguments; and Application of Quantitative Models**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of quantitative reasoning.*

Students practice quantitative reasoning by examining biological texts and manipulating given data sets. The students complete quantitative exercises as part of class discussions and formal exams. Class discussion is most often used as a formative method for evaluating initial student understanding while formal exams and laboratory reports are used for summative assessment.

**Communication/Representation of Quantitative Information**

In both lecture and laboratory, students practice communication and representation of quantitative information by examining written journal articles of biological context. They examine the presented data in order to extract meaning from graphs, tables and diagrams. Students also examine written description of data to develop correlations and trends. Students evaluate the author's interpretation of the data and compare such with their own analysis. In the laboratory, students research a product and deliver an oral presentation on the applied biology within the product.

**Analysis of Quantitative Arguments**

In both lecture and laboratory, students analyze data by close examination of written journal articles of biological context. Students develop description of a study group and determine meaning of data trends as applied to the study group. Students compare their own interpretation to the author's interpretation of the data and evaluate the comparison for similarities and differences.

**Application of Quantitative Models**

In both lecture and laboratory, student practice using quantitative models by using given data sets to design representative tables, graphs or diagrams. Students also use data sets to calculate common statistical information to describe the data set.

**Personal & Social Responsibility. Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global**

*In this box, provide a narrative that explains how the proposed course addresses **2** of the components of personal & social responsibility.*

#### Sustainability and Ethical Reasoning

With every content unit in the lecture course, students examine the impact of humans on biological systems. Students learn how humans interact with each other, other living things and the environment. Students learn the immediate and long-term impact of these interactions as well as the sustainability of the interactions. Students practice ethical reasoning during class discussion or discussion postings in response to assigned biological text/articles and videos. Students identify ethical concerns and explain ways to address the concerns within a biological context.

#### Collaboration Skills and Teamwork

In laboratory, students collaborate by working in small groups to complete experiments and laboratory exercises. The lab sessions provide opportunities for students to discuss and develop a single cohesive solution to open-ended questions that are based in a sustainability or socially responsible context.

### **D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

[https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan\\_ENMURoswell.pdf](https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan_ENMURoswell.pdf)

This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).



**Date**

Mar 29 2021

## Upload Assessment

**Completed** - Mar 29 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

### [BIOL 1110 ASSESSMENT](#)

**Filename:** BIOL\_1110\_ASSESSMENT.pdf **Size:** 523.5 kB

## Upload Rubric

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

# Application: 0000001525

Virginia Nickels - vnickelshircock@gmail.com  
NM General Education Curriculum

### Summary

**ID:** 0000001525

**Status:** Under Review

**Last submitted:** Mar 29 2021 08:20 PM (MDT)

## Application Form

# Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.



- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

### Contact Information

Name	Virginia Nickels
Title	Instructor of Music
Phone	5052151725
Email	<a href="mailto:nickelsv@sanjuancollege.edu">nickelsv@sanjuancollege.edu</a>

### Submitting Institution

Name of HEI	San Juan College
Submitting Department	Music

### Chief Academic Officer

Name	Sandy Gilpin
Email	<a href="mailto:gilpins@sanjuancollege.edu">gilpins@sanjuancollege.edu</a>

### Registrar

Name	Sherri Schaaf
Email	<a href="mailto:schaafs@sanjuancollege.edu">schaafs@sanjuancollege.edu</a>

### Is this application for your entire system (ENMU, NMSU, & UNM)?

Yes

## Institutional Course Information

Prefix	MUSC
Number	1415
Title	Introduction to Music
Number of credits	3

## Was this course previously part of the New Mexico General Education curriculum?

Yes

## Co-requisite Course

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)

## New Mexico Common Course Information

Prefix	(No response)
Number	(No response)
Name	(No response)

## A. Content Area and Essential Skills

## To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Creative & Fine Arts - Communication, Critical Thinking, Personal & Social Responsibility

## B. Learning Outcomes

### List all common course student learning outcomes for the course.

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

Upon successful completion of the course, the student will be able to

1. Pass a moderately strict examination covering all basic music theory items learned in the first 8 weeks of this course.
2. Pass a moderately strict examination covering composers, forms, structures, classical compositions, etc. from each historical era.
3. Apply this knowledge of music theory and history when attending public music events, when aesthetically listening to any form of music presented in contemporary media, or when challenged to provide music assistance at a community organization, school, or church.

## Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

### Common Student Learning Outcomes

Upon successful completion of San Juan College programs and degrees, the student will demonstrate competency in...

#### BROAD AND SPECIALIZED LEARNING

Students will actively and independently acquire, apply, and adapt skills and knowledge with an awareness of global contexts.

#### CRITICAL THINKING

Students will think analytically and creatively to explore ideas, make connections, draw conclusions and solve problems.

#### CULTURAL AND CIVIC ENGAGEMENT

Students will act purposefully, reflectively, and ethically in diverse and complex environments.

#### EFFECTIVE COMMUNICATION

Students will exchange ideas and information with clarity in multiple contexts.

#### INTEGRATING TECHNOLOGIES

Students will demonstrate fluency in the application and use of technologies, information, or resources in multiple contexts

---

## C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

**Communication. Genre and Medium Awareness, Application and Versatility; Strategies for**

## ***Understanding and Evaluating Messages; and Evaluation and Production of Arguments.***

*In this box, provide a narrative that explains how the proposed course addresses **all** of the components of communication.*

Musical communication is an aural, visual, and emotional/intellectual medium. Throughout the course, students are challenged and engaged to examine how the musical arts serve as a communicative link over ages, continents, and cultures. Students have already been introduced to the musical medium through a life of listening, but will receive indoctrination into the way musicians communicate with each other through beginning-level written notation including written pitch, rhythm, tonality, and dynamics. Students learn how they might better understand and communicate the language of music by improving their listening skills (ear training activities and exercises), reading basic notation, and sharing responses with their peers. Students are challenged and engaged in musical language acquisition through the course work of class lecture and demonstration, written and oral discussion, repetition of physical response (clapping/tapping), and oral/aural response to melodic and rhythmic material. For example, students will play a major scale at the piano in order to learn the pattern and sound of the tonality, which communicates mood and tone. They will write a given key signature on the whiteboard to learn written accidentals and keys, which communicates knowledge of music fundamentals. They will perform rhythmic call and response in class as an exercise in ear training, or aural/oral communication. All of these are methods of musical communication. Through the application and demonstration of musical assignments such as these, student knowledge and versatility of language syntax are assessed through written, verbal and aural methods. Area-specific written assignments and online resources such as The Rhythm Trainer and [musictheory.net](https://www.musictheory.net) are also utilized to determine students' awareness, application and versatility of the musical medium. These online resources are readily available methods of self-practice, communicating self-assessment.

In addition to the written language of music notation, students will read the required music history text and view instructor-provided videos in order to share not only main points, but also personal insights gathered through prior knowledge of historical happenings. Their understanding of the reading is assessed through in-class questioning and short quizzes. Class discussions, as well as written exams will also be utilized as tools to discern student comprehension and reasoning. Through an individually assigned research project, students will demonstrate their knowledge regarding a composer and his/her musical innovations and compositions. They are asked to employ an historical lens to better understand and evaluate the composer's output. Their written paper is presented to the instructor and to the students in an oral delivery with visual aids in a classroom setting. Students are assessed on their level

of information and communication (beginning, developed or excellent) in the written portion, as well as their oral and visual presentation.

---

***Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.***

*In this box, provide a narrative that explains how the proposed course addresses all of the components of critical thinking.*

In order to develop an historically discerning ear, the students must first learn style characteristics and instruments of each time period. The evolution of Western classical music history is cumulative. The creation of one style period leads to the creation and influence of the next style, and so on. Students must recall known facts, analyze questions, define important issues and formulate a series of right questions that will lead to appropriate answers when interpreting music history and representative compositions of historical eras. Students must draw conclusions about the evolution of music history by applying progressively acquired knowledge in a holistic manner throughout the semester.

Students will be provided listening examples through the text and course work in order to perform aural identification of such determining musical factors specific to each era. They will employ their historical familiarity gained from prior knowledge, assigned readings and lecture to identify composers and specific time periods. Students will evaluate, analyze and explore the fundamentals of written music through in-class score study, readings and listening examples. Through guided discussion, they reflect on how history has influenced musical composition and performance. Students apply knowledge of musical symbols, vocabulary, tonalities, and history to musical compositions, as evidenced by homework performance, quiz/test performance, and evaluation of audio/video recordings. For example, "What is the meter of the first movement of Beethoven's Symphony No. 5? Why did he select duple rather than triple? Do you think Beethoven's teacher, Haydn could have composed something such as this? Why or why not? How does this composition reflect what the composer's life experience?" Students will analyze how modern music evolved through the introduction of new instruments, notation, and the ideas of prominent composers. They are asked to think about the performance of music, the effect of music, and music itself. Through the written assignment of Concert Review and Critique, students will analyze and critically interpret significant musical works by placing emphasis on terminology and musical structure during the semester.

---

***Personal & Social Responsibility. Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills,***

***teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global***

*In this box, provide a narrative that explains how the proposed course addresses 2 of the components of personal & social responsibility.*

Music is a collaborative discipline. Throughout the course students will learn how musicians collaborate with each other as well as with audiences, publishers, printers, and governments. Throughout the course, students collaborate in a number of ways in order to promote understanding of different points of view and different cultures and value systems. This collaboration also helps them understand the value of teamwork. Students will experience their own musical collaborations through demonstrations of musical skill performance for peer review and critique. Collaborative projects include percussive performance, ear training exercises created and performed by and for students, and student musical composition and performance. These exercises help develop skills of teamwork and group cohesion, cultivate imagination, promote understanding of the subject matter, and give students insight into their own abilities.

To develop and foster an understanding of civic knowledge and engagement, students will attend a live community concert performance. Through deliberate personal analysis and guided classroom discussion, students will be urged while attending the performance to look at the intersection between society and music performance. The students write a concert review and critique assignment which allows them to synthesize their knowledge with the experience of the performance. This synthesis of musical knowledge and civic engagement will be addressed in a written Concert Review and Critique assignment. This culmination assignment utilizes performance, history, vocabulary, and aural knowledge gained throughout the semester to demonstrate an understanding of the role that music plays in our larger society as a whole, both currently and historically.

Throughout the semester students are exposed to a variety of music by composers from different parts of the world and time periods. This aspect of the course allows students to expand their global knowledge of music. Instructor-led classroom discussions provide insight regarding how different aspects of a past composer's life, time and place may have influenced the type of music written, just as those same circumstances do now. Students will make informed opinions about what audience the composer was writing for and how this may have played a role in the music they wrote. We will apply subjects of music history to our musical present in order to develop well-informed producers and consumers of the art. Students must exercise personal responsibility in selecting concert experiences and then write concert review documents that demonstrate their ability to develop conclusions, solutions, and outcomes



that reflect an informed, well-reasoned evaluation.

#### **D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

[https://www.sanjuancollege.edu/media/sanjuancollegeedu/documents/learning/General-Education-Assessment-Plan-final-Fall-2019-\(002\).pdf](https://www.sanjuancollege.edu/media/sanjuancollegeedu/documents/learning/General-Education-Assessment-Plan-final-Fall-2019-(002).pdf)

**This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).**

•  
•

**Date**

Mar 29 2021

## **Upload Assessment**

**Completed** - Mar 29 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

### **ConcertReview&Critique**

**Filename:** ConcertReviewCritique.pdf **Size:** 140.1 kB

## **Upload Rubric**

**Completed** - Mar 29 2021

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

### **ConcertReviewRubric**

**Filename:** ConcertReviewRubric.pdf **Size:** 130.5 kB

# Application: 0000001530

Michael Ottinger - ottingerm@sanjuancollege.edu  
NM General Education Curriculum

## Summary

**ID:** 0000001530

**Status:** Under Review

**Last submitted:** Mar 29 2021 05:35 PM (MDT)

## Application Form

**Completed** - Mar 29 2021

## Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17**,

**2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

### Contact Information

Name	Elaine Benally
Title	Dean of Humanities
Phone	5055663081
Email	<a href="mailto:benallye@sanjuancollege.edu">benallye@sanjuancollege.edu</a>

### Submitting Institution

Name of HEI	San Juan College
Submitting Department	School of Humanities

### Chief Academic Officer

Name	Adrienne Forgette
Email	<a href="mailto:forgettea@sanjuancollege.edu">forgettea@sanjuancollege.edu</a>

## Registrar

Name	Sherri Schaaf
Email	<a href="mailto:schaafs@sanjuancollege.edu">schaafs@sanjuancollege.edu</a>

## Is this application for your entire system (ENMU, NMSU, & UNM)?

(No response)

## Institutional Course Information

Prefix	ARTS
Number	1210
Title	Color Theory 1
Number of credits	3

## Was this course previously part of the New Mexico General Education curriculum?

No

## Co-requisite Course

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)

## New Mexico Common Course Information

Prefix	ARTS
Number	1210
Name	Color Theory 1

### A. Content Area and Essential Skills

#### To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Creative & Fine Arts - Communication, Critical Thinking, Personal & Social Responsibility

### B. Learning Outcomes

#### List all common course student learning outcomes for the course.

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

##### Student Learning Outcomes

1. Apply the subtractive color wheel and color harmonies effectively in art and design.
2. Demonstrate the ability to mix and match hue and value.
3. Demonstrate an understanding of additive and subtractive color models.
4. Analyze the use of color historically and in diverse cultural contexts.
5. Distinguish the emotional and psychological meanings of color.

## Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

### Student Learning Outcomes

1. Apply the subtractive color wheel and color harmonies effectively in art and design.
2. Demonstrate the ability to mix and match hue and value.
3. Demonstrate an understanding of additive and subtractive color models.
4. Analyze the use of color historically and in diverse cultural contexts.
5. Distinguish the emotional and psychological meanings of color.

## C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

**Communication. Genre and Medium Awareness, Application and Versatility; Strategies for Understanding and Evaluating Messages; and Evaluation and Production of Arguments.**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of communication.*

Working in a genre of their choice (still life, landscape, portraiture, or abstract compositions) students use gouache, digital illustration tools or other media of their choice. While working with their chosen media students create images with the intention of visual communication with a “viewer.” Students identify strategies to manipulate the visual attention of the viewer. They employ specific techniques based upon color theory principles in order to obtain this objective. Students evaluate the evidence of the effectiveness of this technique in their work and the work of others.

As students develop understanding of different aspects of color, such as value, hue, and saturation, students identify strategies to manipulate how the viewer perceives color. Through the creation of different contrasts within those aspects, students induce specific responses based on biological responses within the human sensory system. These responses form the basis upon which the student can control the perception of the viewer and thus communicate more effectively with the viewer.

Students, having developed an understanding of how to manipulate all aspects of color, recognize different color theory techniques. Color theory techniques are used to evaluate the evidence of how effective the images they and others create are in communicating a chosen message.

Students compose images based on the techniques that they have learned and develop arguments for the visual perceptions of the intended message. They evaluate their work based on the evidence of how others are perceiving their visual message. They draw conclusions regarding what their images may need in order to be more successful.

***Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.***

*In this box, provide a narrative that explains how the proposed course addresses all of the components of critical thinking.*

As the student initiates a project they are faced with many decisions. They must think critically in order to solve the problems presented by the assignment. The problems they must solve include not only what will be the best subject for presenting what they have learned visually but how to incorporate the set requirements of the project in a way that will communicate to the viewer as the student desires.

As the project develops, the student will continue to problem solve as they learn to choose appropriate colors, manipulate the value, tone and intensity of those colors while continuing to follow the techniques that they have learned in class. As they do this the student will collect evidence from both observation and from feedback of the teacher and other students.

They then evaluate that evidence to determine if they have composed their project in a way that communicates the desired effect and meets the requirements of the project.

As a conclusion to their project, students conduct self-evaluations of their work by writing descriptions of the project they have just completed. Students will share their understanding of color theory principles and technique in writing and share how and where they have implemented those techniques in their image. Describing their project first visual in an image and then textually allows the student to further acquire evidence of the desired outcome and evaluate it for its effectiveness.



**Personal & Social Responsibility. *Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global***

*In this box, provide a narrative that explains how the proposed course addresses **2** of the components of personal & social responsibility.*

Students will recognize and articulate the role images and the inherent element of color play in our society, their importance in different ethnic cultures and in their own lives in regard to religious, political and social contexts throughout the semester. Students will discuss how different aspects of art and the ways in which color are used in that art may have influence on society.

Students make informed opinions about what audience the image was created for and what message the artist was attempting to convey. They must analyze how political, economic, social, and interpersonal influences may shaped our perception of an image and its meaning.

Students will share their own experiences with images and the impact that they have had on their lives, the lives of those around them, and our culture as a whole. They will recognize that they can have an impact on other through the images they create.

Students will observe and appreciate nature and the naturally occurring effects that are produced in response to different combinations of color. They will seek to reproduce these effects in their own images as a way to engage their viewer and communicate more effectively.

---

**D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

<https://www.sanjuancollege.edu/media/sanjuancollegeedu/documents/learning/General-Education-Assessment-Plan-final-Fall-2019.pdf>

---

This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).



**Date**

Mar 29 2021

## Upload Assessment

**Completed** - Mar 29 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

### [Assessment- ARTS 1210](#)

**Filename:** Assessment-\_ARTS\_1210.pdf **Size:** 217.4 kB

## Upload Rubric

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

## Application: 0000001471

Robert Moore - Robert.Moore@rm01.enmuros.cc.nm.us  
NM General Education Curriculum

### Summary

**ID:** 0000001471

**Status:** Under Review

**Last submitted:** Mar 24 2021 04:34 PM (MDT)

## Application Form

**Completed** - Mar 24 2021

# Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout

the course.

### Contact Information

Name	Robert Moore
Title	Assistant VP
Phone	5756247001
Email	<a href="mailto:robert.moore@roswell.enmu.edu">robert.moore@roswell.enmu.edu</a>

### Submitting Institution

Name of HEI	ENMU-Roswell
Submitting Department	Creative & Fine Arts

### Chief Academic Officer

Name	Annemarie Oldfield
Email	<a href="mailto:annemarie.oldfield@roswell.enmu.edu">annemarie.oldfield@roswell.enmu.edu</a>

### Registrar

Name	Linda Neel
Email	<a href="mailto:linda.neel@roswell.enmu.edu">linda.neel@roswell.enmu.edu</a>

### Is this application for your entire system (ENMU, NMSU, & UNM)?

No

### Institutional Course Information

Prefix	THEA
Number	1110
Title	Introduction to Theatre
Number of credits	3

**Was this course previously part of the New Mexico General Education curriculum?**

Yes

**Co-requisite Course**

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)

**New Mexico Common Course Information**

Prefix	THEA
Number	1110
Name	Introduction to Theatre

**A. Content Area and Essential Skills**

**To which area should this course be added?**

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Creative & Fine Arts - Communication, Critical Thinking, Personal & Social Responsibility

## B. Learning Outcomes

---

**List all common course student learning outcomes for the course.**

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

1. Define and discuss basic theater terms and concepts.
2. Discuss the fundamental elements of theatre and the ways in which theatre differs from other art forms.
3. Analyze and critique the elements of live theatrical production.
4. Identify and describe various theatre artists' roles, including actors, directors, playwrights, dramaturges, and designers.

---

### **Institution-specific Student Learning Outcomes**

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

NA

---

## C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

***Communication. Genre and Medium Awareness, Application and Versatility; Strategies for Understanding and Evaluating Messages; and Evaluation and Production of Arguments.***

*In this box, provide a narrative that explains how the proposed course addresses all of the components of communication.*

[\*Genre and Medium Awareness:] Reading and/or observing a play is essentially an act of communication, and in the course students learn the different genres (comedy, drama, experimental, etc.) and mediums (proscenium, professional, in the round, community, etc.) first through rigorous training in vocabulary and nomenclature. They're success is measured in quizzes and an exam as well as increased sophistication in discussions and essays. Students are first introduced to the major genres and movements in art through vocabulary exercises, faculty lecture, and a series of readings that include dramatic presentation of scripts without costumes or props—student inhabit the genre and medium. As students learn achieve versatility within the genres, one assignment asks students to imagine a famous character from a play (Wily Loman) and write a scene for that character in a different style (comedy, perhaps). Individual journals, quizzes, and discussion all allow students to reflect on, experience, and appreciate the different mediums and genres of the theater and the manuscripts that arise from these mediums. We trace the development of diverse theater experiences and production styles, for example. Diversity in the theater manifests in the vast array of plays presented each year (from musicals to avante garde), and each play represents a unique style. We start with a historical background to the theatre, beginning with the Greeks. Represented in essays and discussion, students learn about hamartia, catharsis, and hubris; they encounter these concepts again in Elizabethan theatre. Students read and analyze examples of the four Greek playwrights and connect their works to future playwrights. A student might offer a presentation on neoclassical rules and connect them to the Baroque era and into the post-modern theatre.

[Strategies for Understanding and Evaluating Messages:] Analysis of the theater requires extreme flexibility of imagination and the ability to connect observations to experience; students have multiple opportunities to search for “meaning” in discussions, reflection essays, and final exams, but the practical arts of stagecraft contain their own messages. Students learn, for example, how different lighting affects the interpretation of a scene—or how the staging and blocking of characters allows the story to unfold . Exercises in class also suggest a pattern for how to look for messages. Students read a play and write stage directions for one of the scenes, including the actors Affect, lighting, etc. In class conversation, they discuss their choices and describe the effect they intended. As we mature our ability to talk about stagecraft in the theater, we simultaneously mature our

ability to compare and contrast ideas, techniques, mediums, and ways of expressing from across productions and writers. We can talk about how Hamlet is different than The Phantom of the Opera and why. When writing about theatre, students identify three main questions about the play or production: What is the play attempting to do, how effective was the play (in this attempt), and was the attempt worth making? They analyze the play's direction and the design aspects of the play, such as lighting, set, and costume. Once they have a complete picture of these areas, they analyze and critique the actors and their choices within the performances in a reflective essay. We emphasize the process of “broadening and deepening” our understanding in numerous exercises from reading plays dramatically to writing critiques of how we might stage a scene from a professional play differently.

[\*Evaluation and Production of Arguments:] Discussions compel students to respond to plays and techniques of production, primary texts, other students' positions, as well as professional critiques/reviews; the discussions and written responses model techniques of textual and cultural evaluation. For many of the statements students make (in discussions, for example), we emphasize currency, relevance, authority, accuracy, and purpose. Students create their credible arguments; many assignments make conscious the evaluation techniques necessary to assure thoughtful and hearty presentation. Students arrive at defensible, relevant, and interesting conclusions based on sound and creative premises in their essays, presentations, and short assignments. They are guided to ask questions, explore, surmise, posit opinions, and support their ideas through different deductive reasoning and Socratic teaching strategies. Repeated exposure to primary and secondary sources (artworks and critiques of artwork) allows students to engage examples of excellent and poor reasoning, logical fallacies, misguided conclusions, affirming organization, and general patterns of argument valuable for college-level academic discourse.

---

***Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.***

*In this box, provide a narrative that explains how the proposed course addresses all of the components of critical thinking.*

[\*Problem Setting:] During the semester, students explore many aspects of the theater from practical aspects like scene creation and blocking to live readings of professional plays. Students participate in individual and group activities while learning the nomenclature, roles, and culture of the theater experience. Students share their reactions and experiences through reflective documents, quizzes,



exams, and practicums; they participate in discussions nearly each class where they share insights about assigned readings.

[Evidence Acquisition:] Students access and consider evidence available through their assigned course texts, the library's general collection, and the University's numerous databases (e.g., EBSCO, Academic Search Complete, ProQuest, JSTOR, etc.), and faculty-provided material to support their observations, analyses, and arguments forwarded in class discussion and on assignments. Several assignments, like their quizzes, require them to rally information they have accumulated about actors and stage directions, for example; other assignments, like the reflective responses, are designed to enhance students' research and discovery skills and reward effective use of outside sources, especially when they are asked to engaged professional plays.

[\*Evidence Evaluation:] Discussions compel students to respond to the physical demands of stagecraft (practical aspects of the theater), primary texts, other students' positions, as well as professional critiques / reviews of plays; the discussions and written responses model techniques of textual and cultural evaluation. For many of the statements students make (in discussions, for example), we emphasize currency, relevance, authority, accuracy, and purpose. Students are working on creating their own credible opinions; many assignments make conscious the techniques of evaluation necessary to assure thoughtful and hearty presentation (in one exercise, the block a scene from a professional play and articulate their reasoning).

[\*Reasoning/Conclusion(s):] Students arrive at defensible, relevant, and interesting conclusions based on sound and creative premises in their short assignments. They are guided to ask questions, explore, surmise, posit opinions, and support their opinions through different strategies of deductive reasoning and Socratic teaching. In discussion and responses, they are asked to "interpret" plays thematically and also practically—what does the play "mean" and "what is the best way to stage a scene?" The production of a play requires an enormous amount of small decisions, and students practice asking questions (what lighting do I need?) and coming to conclusions (I need a softer light) through projects they undertake individually and with other students as they reason through the possible outcomes of their choices; sometimes, trial and error is their best teacher, but repeated exposure to primary and secondary sources (plays and discussion of plays, faculty lecture) allow students to engage examples of good and poor reasoning, logical fallacies, misguided conclusions, affirming organization, and general patterns of argument valuable for college-level academic discourse.

**Personal & Social Responsibility. *Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global***

*In this box, provide a narrative that explains how the proposed course addresses 2 of the components of personal & social responsibility.*

[\*Intercultural Reasoning and Intercultural Competence:] During the semesters, through the observation and encounter of the theater as a whole, and plays in particular, students immerse themselves in a variety of socio-cultural issues represented in the theater across periods, cultures, regions, and styles; examine how past socio-cultural, geographic, historical influences informs current playwrights; and learn to appreciate and approach differing theatrical styles, attitudes, and artifacts across generations. Student progress is measured in part on their ability to recognize different styles of theatrical presentation and terms associated with the theater, and they reflect their understanding in short projects and quizzes; many of the assignments ask them to engage, react to, and otherwise consider issues most relevant to the social role of the theater, including the central role the theater plays in reflecting cultural attitudes.

[\*Civic Knowledge and Engagement—Local and Global:] Across the semester, students are introduced to the theater as a local and global phenomenon, manifesting in many different ways for different purposes—but always meant to be shared in a civic space; students learn about how and where the theater is performed, produced, and consumed and, consequently, gain knowledge about the civic nature of the theater. Students also explore the local and global contexts surrounding the creation, production, and consumption of theatrical production; one project, for example, asks students to think about how a play might be presented to a large auditorium (or virtually) or in a more intimate space. All students must read and attend live theatrical productions throughout the semester, and they analyze and critique the elements of live theatrical production, including the history of theatre and theatrical terminology used to create a live production. Nearly every play, in terms of content, embraces the conversation of civic responsibility either as a critique, a model, or an investigation of communities in action; the plays provide the leaping-off point for conversations about how the individual conflicts with, correspondent to, or estranged from society; the students' essay and discussions allow them to reflect and sharpen their appreciation.

#### **D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

[https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan\\_ENMURoswell.pdf](https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan_ENMURoswell.pdf)

**This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).**

A handwritten signature in black ink, appearing to read "Rm / Amo". The signature is written in a cursive, stylized font.

**Date**

Mar 24 2021

## **Upload Assessment**

**Completed** - Mar 24 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

### **[THEA 1110 Assignment](#)**

**Filename:** THEA\_1110\_Assignment.pdf **Size:** 376.6 kB

## **Upload Rubric**

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

# **Application: 0000001439**

Michael Bilopavlovich - michaelb@mesalands.edu

## Summary

**ID:** 0000001439

**Status:** Under Review

**Last submitted:** Mar 18 2021 01:38 PM (MDT)

## Application Form

**Completed** - Mar 18 2021

## Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

# Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

## Contact Information

Name	Michael Bilopavlovich
Title	Faculty
Phone	5754614413 ext. 150
Email	<a href="mailto:michaelb@mesalands.edu">michaelb@mesalands.edu</a>

## Submitting Institution

Name of HEI	Mesalands Community College
Submitting Department	Academic Affairs

## Chief Academic Officer

Name	Natalie Gillard
Email	<a href="mailto:natalieg@mesalands.edu">natalieg@mesalands.edu</a>

## Registrar

Name	Forrest Kaatz
Email	<a href="mailto:forrestk@mesalands.edu">forrestk@mesalands.edu</a>

**Is this application for your entire system (ENMU, NMSU, & UNM)?**

No

**Institutional Course Information**

Prefix	COM
Number	102
Title	Public Speaking
Number of credits	3

**Was this course previously part of the New Mexico General Education curriculum?**

Yes

**Co-requisite Course**

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)

**New Mexico Common Course Information**

Prefix	COMM
Number	1130
Name	Public Speaking

**A. Content Area and Essential Skills**

## To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Communications - Communication, Critical Thinking, Information & Digital Literacy

## B. Learning Outcomes

### List all common course student learning outcomes for the course.

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

1. Demonstrate effective speech preparation 2. Demonstrate effective speech delivery through use of language, nonverbal elements and creation of presentation aids. 3. Analyze a potential audience and tailor a speech to that audience. 4. Evaluate presentations according to specific criteria. 5. Explain common propaganda techniques and logical fallacies, and identify them in the speeches of others. 6. Recognize diversity and ethical considerations in public speaking.

### Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

N/A

## C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---



**Communication. Genre and Medium Awareness, Application and Versatility; Strategies for Understanding and Evaluating Messages; and Evaluation and Production of Arguments.**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of communication.*

Students are required to complete four major speeches. Smaller, shorter speeches (2 and 3 minutes in length) are required for purposes of familiarization, formal, and informal communication events/opportunities. The first two minute speech is an impromptu introduction of themselves to the class. The second, is a three minute speech on an artifact or object of value they share with the class. The four major speeches are five minutes in length. Two speeches are to be informative and two are to be persuasive. The students develop outlines and written materials for each major speech. The course begins with outlining as a core discipline of the speech writing process. As the course progresses, each speech develops new skills in communication, until the final presentation requiring an outline, sources cited (APA), and an effective slide presentation. The speech writing process throughout the semester progressively builds adding elements for students to master. The first persuasive speech (second major speech) requires two outlines from both perspectives. The student is required to write two speeches investigating both sides of an argument. This is important in the skill of persuasion. The student must be prepared to give both, one is chosen by the instructor the day of the presentation. Citations and outlines are required from the beginning of the course to hone the student's ability to think critically and analyze data in a logical manner. The students are taught to think critically about messages they hear in speeches. Each student evaluates their peer's speeches. A rubric is provided to the students for evaluation. The instructor also uses a rubric for each presentation to grade the student and give feedback. Students are encouraged to incorporate the 'Five Canons of Rhetoric' and Aristotle's Proofs (Logos, Ethos, and Pathos) in each presentation.

**Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of critical thinking.*

Students must identify, gather, and evaluate information or data to demonstrate their ability to form arguments and present reliable information to their peers. Students utilize critical skills to select topics based on personal knowledge, research and applicability to a given audience. They are required to maintain their credibility as a presenter through their critical analysis and ability to parse fact from opinion appropriately. The student must analyze their audience and gauge their presentation based on data collected through various methods. This allows the student to present information with an appropriate scope and depth of evidence for the given topic. The persuasive speech demands sound arguments requiring students to use the three informal proofs of ethos, logos and pathos. They are also given detailed instruction of logos; thus induction, deduction, sign, and analogy forms of argument follow. Students are also asked to identify common logical fallacies and formulate persuasive arguments supported by sound reasoning and credible evidence.

**Information & Digital Literacy. Authority and Value of Information; Digital Literacy; Information Structure; and Research as Inquiry**

*In this box, provide a narrative that explains how the proposed course addresses **3** of the components of digital literacy.*

Students in this course are asked to select, use, produce, organize and share information. Specifically, students are required to present a series of presentations over the course of the semester in which they gather and present information to their audience. These presentations range from an informative speech in which they are asked to generate new knowledge and information for their classmates; to a persuasive speech in which they formulate an argument based on analyzing and evaluating research that they will use with the goals of creating change in their audience. These speeches and other assignments require that students understand appropriate citation styles, demonstrate an ability to gather information from an appropriate authority, and organize the ideas in such a way as to meet the rhetorical purpose of given assignments. Students are also assessed on how effectively they use technology in their speeches and how to avoid being used by technology. Students also use the LMS to upload assignments and speeches. They learn to utilize online software for research and organization of their work. Finally, the value of critical thinking is imperative in the information age we live. They are taught to be critical thinkers and evaluate the information they are exposed to. This includes online sources as well as speakers utilizing data and studies. They are taught to evaluate information and validate data.

**D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

<https://www.mesalands.edu/wp-content/uploads/2020/01/SLAC-Annual-Report-2018-19-Final.pdf>

This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).

H G

M B

**Date**

Mar 18 2021

## Upload Assessment

**Completed** - Mar 18 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

### [COMM 1130 Persuasive Speech Assignment](#)

**Filename:** COMM\_1130\_Persuasive\_Speech\_Assignment.pdf **Size:** 100.1 kB

## Upload Rubric

**Completed** - Mar 18 2021

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

### [COMM 1130 Rubic](#)

**Filename:** COMM\_1130\_Rubic.pdf **Size:** 152.2 kB

## Application: 0000001503

Robert Moore - Robert.Moore@rm01.enmuros.cc.nm.us  
NM General Education Curriculum

### Summary

**ID:** 0000001503

**Status:** Under Review

**Last submitted:** Mar 29 2021 09:18 AM (MDT)

## Application Form

# Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.

- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

### Contact Information

Name	Robert Moore
Title	Assistant VP
Phone	5756247001
Email	<a href="mailto:robert.moore@roswell.enmu.edu">robert.moore@roswell.enmu.edu</a>

### Submitting Institution

Name of HEI	ENMU-Roswell
Submitting Department	Science

### Chief Academic Officer

Name	Annemarie Oldfield
Email	<a href="mailto:annemarie.oldfield@roswell.enmu.edu">annemarie.oldfield@roswell.enmu.edu</a>

### Registrar

Name	Linda Neel
Email	<a href="mailto:linda.neel@roswell.enmu.edu">linda.neel@roswell.enmu.edu</a>

### Is this application for your entire system (ENMU, NMSU, & UNM)?

No

## Institutional Course Information

Prefix	GEOL
Number	1110
Title	Physical Geology
Number of credits	3

## Was this course previously part of the New Mexico General Education curriculum?

Yes

## Co-requisite Course

Prefix	GEOL
Number	1110/L
Title (if applicable)	Physical Geology Lab

## New Mexico Common Course Information

Prefix	GEOL
Number	1110
Name	Physical Geology Lecture + Lab

## A. Content Area and Essential Skills

## To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Science - Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning

## B. Learning Outcomes

### List all common course student learning outcomes for the course.

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

#### GEOL 1110

1. Recall, describe or explain geologic vocabulary.
2. Identify or explain aspects of the geologic time scale and compare the uses and limitations of relative and absolute dating.
3. Recognize or explain the evidence used to support the theory of plate tectonics. Describe or identify how plate tectonics is related to the structure and features of the Earth.
4. Describe the formation of, and describe, compare, and classify minerals.
5. Identify or describe the three main rock types, how each forms in the context of the rock cycle and what each indicates about its environment of formation.
6. Recognize or explain the fundamentals of surface and groundwater hydrology and discuss the impact of human activities on water quality and quantity.
7. Describe or discuss the processes that are responsible for specific geologic hazards (e.g., earthquakes, volcanic eruptions, mass movement, flooding, etc.).
8. Recognize or describe the geologic processes involved in the formation and concentration of geologic resources.

#### GEOL 1110L

1. Use physical properties to identify mineral specimens.



2. Describe, classify, and identify igneous, sedimentary, and metamorphic rocks and their textures.
3. Utilize the principles of stratigraphy to provide an explanation of the geologic history portrayed in a photograph or cross-section.
4. Explain how contour lines are used to represent topography, use map scales to measure distances on the ground, and construct topographic profiles.
5. Identify landforms from images and topographic maps.
6. Interpret geologic maps and construct geologic cross-sections.
7. Acquire and communicate scientific data, ideas, and interpretations through written, oral, or visual means. Examples may include creating and describing graphs, maps and photos.
8. Apply critical thinking skills such as inductive, deductive, and mathematical reasoning to solve geological problems.

---

### **Institution-specific Student Learning Outcomes**

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

NA

---

### **C. Narrative**

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

**Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of critical thinking.*

Critical Thinking and the processes involved is a fundamental skill developed by students throughout the Physical Geology course at Eastern New Mexico University Roswell. Students gain experience and proficiency in all of the component skills by the time they complete the course. Critical Thinking is addressed and assessed through multiple classroom exercises and discussions as well as in weekly laboratory assignments. One example of an assignment that addresses Critical Thinking is the laboratory assignment Sedimentary Rocks. After learning about sedimentary rocks, including their compositions, textures, and structures in the classroom setting, and having learned to identify the rocks and their characteristics in a laboratory setting, students then apply their knowledge in the lab exercise. All component skills of critical thinking are address in this assignment. The students conduct grain analysis, identification of sedimentary rocks with a sedimentary flow chart and an online sedimentary rock photo guide. Students learn in the lab exercise about what are the textural features of sedimentary rocks, what are processes of sedimentary rock formation, classifying clastic sedimentary rock samples, classifying chemical sedimentary minerals and rocks, and biochemical sedimentary rocks and they identify the depositional environments and ancient environments of these rocks.

**Quantitative Reasoning. *Communication/Representation of Quantitative Information; Analysis of Quantitative Arguments; and Application of Quantitative Models***

*In this box, provide a narrative that explains how the proposed course addresses all of the components of quantitative reasoning.*

Students in Physical Geology apply Quantitative Reasoning principles throughout the class, both in the lecture and laboratory settings. Students analyze graphs and apply their knowledge to answer quiz, exam, and laboratory questions. Radiometric dating, which assigns an absolute date to an object and puts numbers (numerical ages) on earth materials, processes, and events, is paramount to understanding the history of our planet. In both lecture and lab, students will analyze the principles of radiometric dating, including the mathematical concept of the half-life with regards to the radioactive decay of unstable nuclei. Students will apply these concepts to calculate age numbers for rocks, minerals, processes, and geological events.

**Personal & Social Responsibility. *Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global***

*In this box, provide a narrative that explains how the proposed course addresses 2 of the components of personal & social responsibility.*

Physical Geology teaches Personal and Social Responsibility to students. The component skills addressed and assessed in Physical Geology at Eastern New Mexico University Roswell are 1. Sustainability and the natural and human worlds, and 2. Collaboration skills, teamwork and value systems. Students participate and complete weekly laboratory exercises that include a variety of relevant topics, including earth resources utilized by humans such as building materials and electronics, human uses of various minerals, fossil fuels and freshwater resources and natural hazards such as earthquakes, volcanoes and mass wasting. Students study the human causes of mass wasting.

#### **D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

[https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan\\_ENMURoswell.pdf](https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan_ENMURoswell.pdf)

**This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).**

A handwritten signature in black ink, appearing to read "Rm / AWO", is displayed on a light gray background.

**Date**

Mar 29 2021

## **Upload Assessment**

**Completed** - Mar 29 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

### **GEOL 1110 Assignment**

**Filename:** GEOL\_1110\_Assignment.pdf **Size:** 2.7 MB

## **Upload Rubric**

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

# **Application: 0000001531**

Michael Ottinger - ottingerm@sanjuancollege.edu

## Summary

**ID:** 0000001531

**Status:** Under Review

**Last submitted:** Mar 29 2021 05:38 PM (MDT)

## Application Form

**Completed** - Mar 29 2021

## Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

# Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

## Contact Information

Name	Elaine Benally
Title	Dean of Humanities
Phone	5055663081
Email	<a href="mailto:benallye@sanjuancollege.edu">benallye@sanjuancollege.edu</a>

## Submitting Institution

Name of HEI	San Juan College
Submitting Department	School of Humanities

## Chief Academic Officer

Name	Adrienne Forgette
Email	<a href="mailto:forgettea@sanjuancollege.edu">forgettea@sanjuancollege.edu</a>

## Registrar

Name	Sherri Schaaf
Email	<a href="mailto:schaafs@sanjuancollege.edu">schaafs@sanjuancollege.edu</a>

### Is this application for your entire system (ENMU, NMSU, & UNM)?

(No response)

### Institutional Course Information

Prefix	ARTS
Number	1115
Title	Orientation in Art
Number of credits	3

### Was this course previously part of the New Mexico General Education curriculum?

No

### Co-requisite Course

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)

### New Mexico Common Course Information

Prefix	ARTS
Number	1115
Name	Orientation in Art

### A. Content Area and Essential Skills

## To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Creative & Fine Arts - Communication, Critical Thinking, Personal & Social Responsibility

## B. Learning Outcomes

**List all common course student learning outcomes for the course.**

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

The NM common learning outcomes for this course:

1. The student will be able to identify elements of art and principles of design.
2. The student will be able to articulate the relationship of art to the human experience.
3. The student will be able to write and discuss critically using the vocabulary of art.
4. The student will be able to interpret art within cultural, social, personal, and historical contexts.
5. The student will be able to critically analyze an original work of art.



## Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

The NM common learning outcomes for this course:

1. The student will be able to identify elements of art and principles of design.
2. The student will be able to articulate the relationship of art to the human experience.
3. The student will be able to write and discuss critically using the vocabulary of art.
4. The student will be able to interpret art within cultural, social, personal, and historical contexts.
5. The student will be able to critically analyze an original work of art.

### C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

***Communication. Genre and Medium Awareness, Application and Versatility; Strategies for Understanding and Evaluating Messages; and Evaluation and Production of Arguments.***

*In this box, provide a narrative that explains how the proposed course addresses all of the components of communication.*

Students will learn how to network and collaborate with others, engage with an audience in order to educate and present concepts based on personal and historic perspective; and relate interpersonally with a reasonable degree of expertise. They will exhibit an awareness of understanding the variety of mediums; genre; topical eras and processes by creating works and sharing and discussing with others. Students will demonstrate versatility and understanding via application through the creation of both 2-D and 3-D art projects; culminating in applying skill sets into a final work of their choice. Students will demonstrate an ability to deliver and evaluate diverse and variable historical and personal perspectives through giving and receiving outside critiques on assignments. The critique will occur in a group environment after the learners have presented the work and elaborated on inspirations for creation, principles utilized, and elaborated on process barriers, transitions, and successes. Students may also elaborate on ways the project would be altered or improved if done again. Additionally, students will learn how to be versatile in addressing how their creations may be presented to, or utilized to influence, a large audience. During group and individual interpersonal discussions, students will share their learning process and the influences for the origins of their ideas.

Additional expression of communication skills will be exhibited through visual presentations and written materials, such as the generation of visual aids, supplementary materials, and observations. Students will demonstrate an understanding of communication for the purpose of educating and potentially influencing. These processes will also utilize the application of composition skills attained via the course work; predominantly utilizing principles of design, concepts of presenting depth by artificial means, perspective, and appropriate understanding and utilization of color theory. Presentations will exhibit the culmination of understanding course materials via the ability to be informative to others.

**Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of critical thinking.*

Students will be challenged to think creatively, anticipate and solve problems, and presents formative steps in the creation of their art pieces. Students will demonstrate the ability to grapple with emotional content in art assignments; and overcome aspects of design, medium constraints, craftsmanship, and mechanics. Instructor feedback, peer evaluation, and principles from the text will be used to identify and rectify faults in works prior to final presentation of pieces. Students will master an understanding of art concepts and principles in order to apply their original ideas via diverse processes with various styles and motifs; usually applying the core elements of the creative process – Associating, Questioning, Observing, Networking, an Experimenting. To determine similarity and originality, students will compare their creations to others in the field, medium and era. Through the production of a short 1-2 page constructive critique, students will demonstrate understanding of how to identify composition principles, design strategies, original era concepts, and support their opinion of the work and how the piece may be perceived by others. The papers are proofed via instructor identified facilities source, and then an assessment by the instructor will review for proper understanding on the ability to Analyze, Evaluate and Support Personal Opinion in the form of a critical review of an art work. The student must also be able to articulate in a written format on possible changes in the work of art, what changes, and how would this influence that nature of the work and perceptions of the audience. Each assignment requires the student to demonstrate an understanding and utilization of the necessary principles – Balance (Symmetrical, Asymmetrical, or Radial), Emphasis and Subordination, Pattern and Rhythm, Repetition, Proportion, and finally Unity and Variety. Finally, student will come of an ultimate conclusion about the merit of their productions based on the above mentioned criteria.

**Personal & Social Responsibility. *Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global***

*In this box, provide a narrative that explains how the proposed course addresses 2 of the components of personal & social responsibility.*

Through participation via completing sectional quizzes, course exams, hands on activities, era and personal construct presentations, and the production of a written artistic critique; students take responsibility for their own artistic development and understanding of core concepts, media types and utilization, era distinctions, and language associated with the subject. There is a responsibility to offer opportunities for reflection and candid assessment of their work and the work of others; along with celebration of successes, acceptance for correctable deficiencies and catastrophic failures, and to be mindful. Students will demonstrate the ability to offer and receive feedback in a manner that exhibits awareness regarding productive interpersonal communication, cultural and socioeconomic sensitivity, and general protocol. The skills needed to engage in a critical environment, including offering and receiving instructor generated feedback, will directly lead to future coursework and like skills as students gain an understanding of methods by which to observe nonjudgmentally without bias, listen carefully in a humble manner to receive and provide feedback, and to deliver constructive assessments in a productive and comforting manner. These skills will be modeled by the instructor. Students are exposed to intercultural, regional specific, and era specific artwork and are required to evaluate pieces based on social and cultural depictions of others associated with that world. The instructor will provide visual and physical media associated with various cultures to inspire art that reflects the culture in a variety of ways. Students are required to maintain a clean environment and take responsibility for their working areas to ready the space for the consideration and future use by others. At the end of the semester students will provide a visual presentation of the process in creating a final work; along with the final work, and will demonstrate the ability to engage with their peers in a respectful and constructive manner.

## D. Assessment Plan (Must be on file with HED by August 1, 2019)

Link to Institution's General Education Assessment Plan

<https://www.sanjuancollege.edu/media/sanjuancollegeedu/documents/learning/General-Education-Assessment-Plan-final-Fall-2019.pdf>

**This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).**



**Date**

Mar 29 2021

## Upload Assessment

**Completed** - Mar 29 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

### [Assessment - ARTH 1115](#)

**Filename:** Assessment\_-\_ARTH\_1115.pdf **Size:** 179.1 kB

## Upload Rubric

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

# Application: 0000001422

Robert Moore - Robert.Moore@rm01.enmuros.cc.nm.us

## Summary

**ID:** 0000001422

**Status:** Under Review

**Last submitted:** Mar 25 2021 10:55 AM (MDT)

## Application Form

**Completed** - Mar 25 2021

## Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

# Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

## Contact Information

Name	Robert Moore
Title	Assistant VP
Phone	5756247001
Email	<a href="mailto:robert.moore@roswell.enmu.edu">robert.moore@roswell.enmu.edu</a>

## Submitting Institution

Name of HEI	ENMU-Roswell
Submitting Department	Science

## Chief Academic Officer

Name	Annemarie Oldfield
Email	<a href="mailto:annemarie.oldfield@roswell.enmu.edu">annemarie.oldfield@roswell.enmu.edu</a>

## Registrar

Name	Linda Neel
Email	<a href="mailto:linda.neel@roswell.enmu.edu">linda.neel@roswell.enmu.edu</a>

**Is this application for your entire system (ENMU, NMSU, & UNM)?**

No

**Institutional Course Information**

Prefix	PHYS
Number	1310
Title	Calculus-based Physics I
Number of credits	3

**Was this course previously part of the New Mexico General Education curriculum?**

Yes

**Co-requisite Course**

Prefix	PHYS
Number	1310L
Title (if applicable)	Calculus-based Physics I Lab

**New Mexico Common Course Information**

Prefix	PHYS
Number	1310
Name	Calculus-based Physics I Lecture + Lab

**A. Content Area and Essential Skills**



## To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Science - Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning

## B. Learning Outcomes

### List all common course student learning outcomes for the course.

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

Upon completion of this course, the student will be able to: 1. Describe the relationships among position, velocity, and acceleration as functions of time. 2. Use the equations of kinematics to describe motion under constant acceleration. 3. Analyze linear motion using Newton's laws, force, and linear momentum. 4. Analyze rotational motion using torque and angular momentum. 5. Analyze motion using work and energy. Optional Topics may include (some schools include these in Physics I, others in Physics II ) 1. Oscillations, 2. Waves, 3. Sound, 4. Thermodynamics

### Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

Optional Student Learning Outcomes 1. Describe and apply the fundamental properties of waves, oscillations, and periodic motion. 2. Describe and apply the laws of thermodynamics.

## C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

### **Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.**

*In this box, provide a narrative that explains how the proposed course addresses **all** of the components of critical thinking.*

By the end of this course students will be required to exercise a high level of critical thinking skills in solving application problems dealing with Newtonian motion, circular motion, and free body diagrams. For example, students might be asked to find the final velocity of an object in free fall just before it hits the ground. Students will need to apply equations of freefall as well as identifying the variables and the constants in the given equations. As is typical in most college level physics courses, the students will need to identify the correct equation to apply in a given situation, making sure the units are proper and the answer makes sense. Physics problems can vary in difficulty, but generally require a high level of inductive and deductive reasoning and critical thinking. Because the variety of problems are vast, it is especially important to understand and apply the correct formula to the physical situation being described. Each week students will have homework that relates to the lecture and these assignments require critical thinking skills. Finally, students will be assessed for critical thinking at the end of the course by means of a final exam that covers content and the skills developed throughout the semester. The learning outcomes vary from chapter to chapter, but critical thinking is the basis for physics.

**Quantitative Reasoning. Communication/Representation of Quantitative Information; Analysis of Quantitative Arguments; and Application of Quantitative Models**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of quantitative reasoning.*

By the end of this course students will have to demonstrate a mastery of a variety of quantitative skills related to physics. Physics is probably the scientific field most dependent on mathematics and quantitative literacy. Students will be working a multitude of problems involving detailed calculations that require basic math skills to complex problems like solving roots of quadratic equations to find the time needed for an object to reach a certain height, when only the force of gravity acts on a body. These computations are essential in solving all kinds of physics problems from motion in one dimension, motion in two dimensions, force diagrams, vectors, rotational velocity and acceleration, etc. Students will work assigned problems as homework and we will often discuss solutions and the steps to solution for difficult problems. In addition, an awareness of the units and their meanings is important in communicating the solution. Likewise, statistically calculations, like mean and standard deviation, are required in the physics lab. The manner in which these skills are assessed are primarily through homework, formal summative assessments at the end of each chapter/module; In addition to homework and chapter tests, learning is assessed through a comprehensive final exam at the end of the semester.

**Personal & Social Responsibility. *Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global***

*In this box, provide a narrative that explains how the proposed course addresses 2 of the components of personal & social responsibility.*

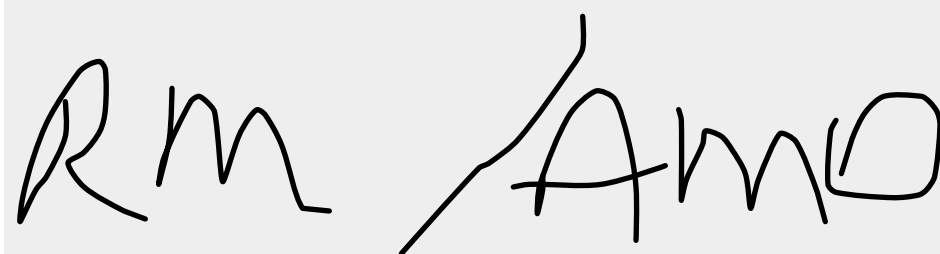
In keeping with the advice of the Association of American Colleges and Universities (AAC&U); ENMUR science courses aspire to foster and form in our students: (1) a striving for excellence, by developing a strong work ethic, (2) acting on a sense of personal and academic integrity, ranging from honesty to moral principles of ethics and character development, (3) contribution to a larger community, now and in the future, (4) taking serious the perspective of others (5) ethical and moral reasoning. The key to this part of education is the fact that our Physics courses integrate these outcomes into our classroom discussions and laboratory experiments. Having clear deadlines and classroom expectations inherently develops a strong work ethic and time management skills needed for life and employment. Our expectation to complete one's own homework and tests is explicitly stated in our Student Handbook and syllabus, while making room for collaboration. This collaboration is most clearly seen during physics lab time, when students engage in conversation, share ideas, challenge assumptions, problem solve by listening to other's opinions, and coming to a solution that works for all. Lastly, while classroom lectures and conversations tend to be centered around content of the physical world, the motion of bodies, and the forces at work in our Universe, we do allow time for thought about how this all contributes to the greater human experience of exploration of the unknown, development of technologies that bring advancement to our society, and a general sense of one's own responsibility to the planet, the plant and animal kingdom, and humanity itself. These skills are developed through reflective articles like the one cited below. These papers are collected and time for discussion is allowed during class, at least once a semester.

#### D. Assessment Plan (Must be on file with HED by August 1, 2019)

Link to Institution's General Education Assessment Plan

[https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan\\_ENMURoswell.pdf](https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan_ENMURoswell.pdf)

**This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).**

A handwritten signature in black ink, consisting of the letters 'Rm' followed by a diagonal slash and the letters 'AMO'.

**Date**

Mar 11 2021

## Upload Assessment

**Completed** - Mar 11 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

### PHYS 1310 HW 1

**Filename:** PHYS\_1310\_HW\_1.pdf **Size:** 712.8 kB

## Upload Rubric

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

# Application: 0000001465

Robert Moore - Robert.Moore@rm01.enmuros.cc.nm.us

## Summary

**ID:** 0000001465

**Status:** Under Review

**Last submitted:** Mar 24 2021 01:53 PM (MDT)

## Application Form

**Completed** - Mar 24 2021

## Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

# Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

## Contact Information

Name	Robert Moore
Title	Assistant VP
Phone	5756247001
Email	<a href="mailto:robert.moore@roswell.enmu.edu">robert.moore@roswell.enmu.edu</a>

## Submitting Institution

Name of HEI	ENMU-Roswell
Submitting Department	English

## Chief Academic Officer

Name	Annemarie Oldfield
Email	<a href="mailto:annemarie.oldfield@roswell.enmu.edu">annemarie.oldfield@roswell.enmu.edu</a>

## Registrar

Name	Linda Neel
Email	<a href="mailto:linda.neel@roswell.enmu.edu">linda.neel@roswell.enmu.edu</a>

**Is this application for your entire system (ENMU, NMSU, & UNM)?**

No

**Institutional Course Information**

Prefix	ENGL
Number	2640
Title	British Literature II
Number of credits	3

**Was this course previously part of the New Mexico General Education curriculum?**

Yes

**Co-requisite Course**

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)

**New Mexico Common Course Information**

Prefix	ENGL
Number	2640
Name	British Literature II

**A. Content Area and Essential Skills**



## To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Humanities - Information & Digital Literacy, Critical Thinking, Personal & Social Responsibility

## B. Learning Outcomes

### List all common course student learning outcomes for the course.

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

1. Read and discuss representative works of British writers from the 18th century to the present to understand cultural and historical movements, which influenced those writers, and their works.
2. Identify the characteristics of various British literary genres, such as the essay, novel, short story, poetry, and dramatic literature.
3. Apply effective analytic and interpretive strategies to British literary works using academic conventions of citation and style.

### Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

NA

## C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

### **Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.**

*In this box, provide a narrative that explains how the proposed course addresses **all** of the components of critical thinking.*

[\*Problem Setting:] During the semester, students submit multiple types of writing, including reflective documents, response essays, and analytical research papers; they participate in discussions nearly each class where they must determine and tackle a particular problem or issue the reading presents; they offer presentations, work in small groups to explore and share findings, and report discoveries informally with classmates; and they work both individually and in small groups on creative projects (like writing a diary in a specified author's voice).

[Evidence Acquisition:] Students access and consider evidence available through their assigned course texts, the library's general collection, and the University's numerous databases (e.g., EBSCO, Academic Search Complete, ProQuest, JSTOR, etc.) to support their observations, analyses, and arguments forwarded in class and on paper. In many assignments like the final research essays, students must consider and interject professional critical analysis and other documentation to bolster, expand, or otherwise supplement their original ideas. Several assignments, like their presentations, are designed to enhance students' research and discovery skills and reward effective use of outside sources.

[\*Evidence Evaluation:] Discussions compel students to respond to primary texts, other students' positions, as well as professional critiques / reviews; the discussions and written responses model techniques of literary and cultural evaluation. For many of the arguments students present (reflective essays), we emphasize currency, relevance, authority, accuracy, and purpose. Students are working on

creating their own credible arguments; many assignments make conscious the techniques of evaluation necessary to assure thoughtful and hearty presentation (focused / evaluated annotation of texts is an example).

[\*Reasoning/Conclusion(s):] Students arrive at defensible, relevant, and interesting conclusions based on sound and creative premises in their essays, presentations, short assignments, projects, and journaling / annotation. They are guided to ask questions, posit answers, and support their answers through different strategies of deductive reasoning. Repeated exposure to primary and secondary sources allow students to engage examples of good and poor reasoning, logical fallacies, misguided conclusions, affirming organization, and general patterns of argument valuable for college-level academic discourse.

**Personal & Social Responsibility. *Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global***

*In this box, provide a narrative that explains how the proposed course addresses 2 of the components of personal & social responsibility.*

[\*Intercultural Reasoning and Intercultural Competence:] During the semesters, through readings, research, and discussions, students encounter variety of socio-cultural issues in the literature of the time period, prior and succeeding history, and contemporary culture; examine how past socio-cultural issues have informed the present by comparing and contrasting our time with historical periods; and learn to appreciate and approach differing perspectives, lifestyles, ideological stances, etc., that exist in different areas of the British sphere of influence across generations. Student progress is measured in part on their ability to recognize differing perspectives in British literature as they exist across multiple cultures, time periods, and continents and reflect their understanding in essays, projects, and presentations; many of the assignments ask them to engage, react to, and otherwise consider issues most relevant to personal and social responsibility—such as law and order, moral and religious attitudes, ethical mores, and economic justice / disparities—including their annotation / journaling, reflective essays, and projects.

[\*Civic Knowledge and Engagement—Local and Global:] Across the semester, students tackle contemporary and past socio-cultural and political issues that inform their primary source literature. Students explore the local and global contexts surrounding the creation, distribution, and context of their assigned primary sources—drawing connections across diverse points of interest from politics to meat packing, education to dance halls (one project, for example, asks them to imagine themselves as a citizen and to construct a story of their experience). They strive to contextualize academic and literary discourses with global movements, structures, and attitudes. Nearly every primary text embraces the conversation of civic responsibility either as a critique, a model, or an investigation of communities in action; the texts provide the leaping-off point for conversations about how the individual is in conflict with, correspondent to, or estranged from civic duties, responsibilities, and obligations; their annotation and essays allow them to reflect and sharpen their understanding.

---

**Information & Digital Literacy. *Authority and Value of Information; Digital Literacy; Information Structure; and Research as Inquiry***

*In this box, provide a narrative that explains how the proposed course addresses 3 of the components of digital literacy.*

[\*Authority and Value of Information:] Students learn and execute the skills necessary to evaluate the credibility of sources prior to including them in assignments; original texts, edited material (including standard textbooks), and peer-reviewed / published opinions provide nearly all the assessed and included information.

[\*Digital Literacy / Information Structures:] Students master Blackboard both to initiate and participate in several course discussions, communicate with their classmates and instructor, check their grades, and receive course-wide and institutional updates. Students use Teams (and Zoom) to hold class meetings, communicate with each other and the professor, and hold chat conversations. Students engage other important digital tools, including email, PowerPoint, web browsers, and often other platforms like Instagram for communication, research, and production of artifacts. Students have access to tutoring services as well as a wealth of online tutorials and services available to assist their academic progress (Youtube videos, tutorials, Purdue Owl, etc.). These digital tools manifest in their presentations, their research for essays, and their formal explorations of topics and posed questions.

[\*Information Structures:] Students embrace the library, both physical and virtually, as an enormous campus resources to facilitate and conduct research and investigation. They have access to and are required to interact with the library's digital resources, including e-Books, electronic articles, and electronic reference works, especially with the final essay but also their reflective work.

[\*Research as Inquiry:] Assignments and academic interaction in the classroom emphasize a student's ability to initiate, conduct, and arrive at conclusions through a variety of research methods. The course teaches students, first, to ask good questions and then to explore through personal and academic channels various forms of knowledge that assist them in drawing a conclusion. In the final essay, for example, they are asked to form a thesis in response to a question and construct an argument. Students learn to supplement their observations with an array of support, including quotations from source material, professional commentary integrated into their writing (essays, annotations, reflections, projects), and other research. Assignments challenge students to appreciate their role in the knowledge-making adventure of academic, scholarly investigation through the process of asking questions and seeking solutions that are well-supported and engaging. Sometimes, they answer questions the faculty member proposes; sometimes, they generate their own inquiry. Nearly every project or assignment requires students to embrace the "research as inquiry" model, but especially their projects (like

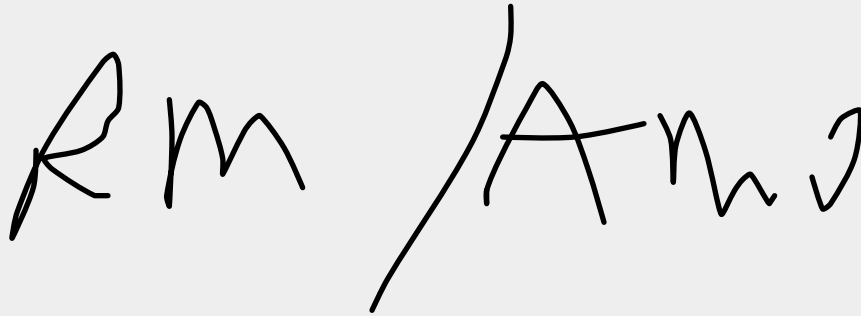
generating a diary from an imagined character from the time period).

#### **D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

[https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan\\_ENMURoswell.pdf](https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan_ENMURoswell.pdf)

**This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).**

A handwritten signature in black ink, appearing to read "Rm / And". The signature is written in a cursive, stylized font.

**Date**

Mar 24 2021

## **Upload Assessment**

**Completed** - Mar 24 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

### **ENGL 2640 Assignment**

**Filename:** ENGL\_2640\_Assignment.pdf **Size:** 543.3 kB

## **Upload Rubric**

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

# Application: 0000001504

Suzanne Balch - suzbal62@hotmail.com  
NM General Education Curriculum

## Summary

**ID:** 0000001504

**Status:** Under Review

**Last submitted:** Mar 29 2021 09:26 AM (MDT)

## Application Form

**Completed** - Mar 29 2021

## Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

### Contact Information

Name	Suzanne Balch-Lindsay
Title	Asst VPAA
Phone	5755622314
Email	<a href="mailto:Suzanne.Balch@enmu.edu">Suzanne.Balch@enmu.edu</a>

### Submitting Institution

Name of HEI	Eastern New Mexico University
Submitting Department	History, Social Sciences and Religion

### Chief Academic Officer

Name	Jamie Laurenz
Email	<a href="mailto:jamie.Laurenz@enmu.edu">jamie.Laurenz@enmu.edu</a>



## Registrar

Name	DeLynn Bargas
Email	<a href="mailto:DeLynn.Bargas@enmu.edu">DeLynn.Bargas@enmu.edu</a>

### Is this application for your entire system (ENMU, NMSU, & UNM)?

No

### Institutional Course Information

Prefix	RELG
Number	1123
Title	Hebrew Bible
Number of credits	4

### Was this course previously part of the New Mexico General Education curriculum?

Yes

### Co-requisite Course

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)

## New Mexico Common Course Information

Prefix	RELG
Number	1123
Name	Hebrew Bible

### A. Content Area and Essential Skills

#### To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Humanities - Information & Digital Literacy, Critical Thinking, Personal & Social Responsibility

### B. Learning Outcomes

#### List all common course student learning outcomes for the course.

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

1. Trace the chronology of the myths, history, and ideas found in the Hebrew Bible emphasizing significant events, personalities, and cultural settings.
2. Identify the various literary genres present in the Hebrew Bible.
3. Identify aspects of the different moral, ethical, and theological messages of the Hebrew Bible

## Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

Students will analyze and critically interpret significant primary texts. Students will evaluate information with the understanding of bias and perception. Students will recognize and challenge assumptions and presupposition. Students will recognize and articulate the diversity of human experience across a range of historical periods and/or cultural perspectives. Students will draw on historical and/or cultural perspectives to evaluate contemporary problems/issues, contemporary modes of expression, and contemporary thought. (see rubric and assignment.

### C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

***Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.***

*In this box, provide a narrative that explains how the proposed course addresses all of the components of critical thinking.*

Students will participate in discussions, answer questions, and write on precisely identifying and defining problems in Hebrew Bible studies, which teaches problem-setting. Students will learn the acquisition and evaluation of evidence concerning the Hebrew Bible. Students will reason and draw conclusions based on the evidence through course assignments, including quizzes, exams, class discussions and participation assignments. In discussions, for example, students will analyze and critically interpret significant primary texts from the Hebrew Bible. In doing so, the student will learn problem-setting, evidence acquisition, and evidence evaluation. Also, students will draw on historical and/or cultural perspectives from within the Hebrew Bible to evaluate evidence and reach reasoned conclusions on any or all of the following: contemporary problems/issues, contemporary modes of expression, and contemporary thought. (see assignment and rubric for evaluation of skills, specific to Critical Thinking).

**Personal & Social Responsibility. *Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global***

*In this box, provide a narrative that explains how the proposed course addresses **2** of the components of personal & social responsibility.*

Students will participate in discussions, answer questions, and write on personal and social responsibility. Personal and social responsibility will be taught through quizzes, exams, class discussions and participation assignments. For example, in writing, students will practice intercultural reasoning and intercultural competence by articulating the diversity of human experience across a range of historical periods and/or cultural perspectives, at least one of which will be from the Hebrew Bible. Students will learn ethical reasoning by critiquing the ethical reasoning found in the Hebrew Bible. Through discussions, students demonstrate the ability to participate in civil dialogue that shares differing perspectives. (see assessment and rubric)

---

**Information & Digital Literacy. *Authority and Value of Information; Digital Literacy; Information Structure; and Research as Inquiry***

*In this box, provide a narrative that explains how the proposed course addresses **3** of the components of digital literacy.*

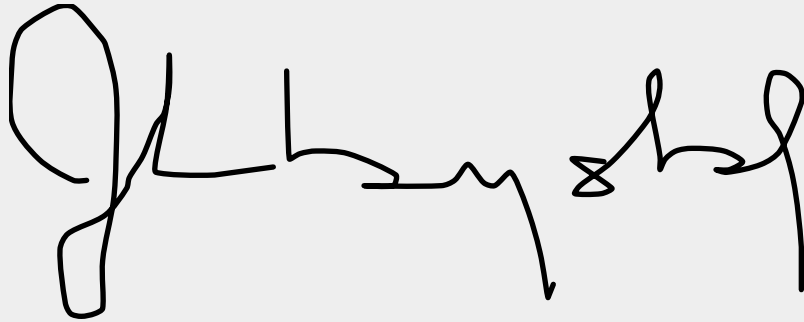
Students will learn, answer questions, and write on the authority and value of the information preserved on the Hebrew Bible. Students will develop digital literacy through digital research in writing. Students will practice identifying valid sources of information both textually and on the internet in preparing to write. Students will learn research as inquiry in using and seeing research to find answers to questions and not to find evidence to support predetermined conclusions through assignments and class discussions. Students will analyze and critically interpret significant primary texts from the Hebrew Bible, reinforcing skills in the determining the authority and value of information and research as inquiry. (see assessment and rubric)

#### D. Assessment Plan (Must be on file with HED by August 1, 2019)

Link to Institution's General Education Assessment Plan

<https://www.enmu.edu/about/public-documents/assessment/general-education-assessment-reports>

**This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).**

A handwritten signature in black ink, appearing to read "John Smith", is displayed on a light gray background.

**Date**

Mar 29 2021

## Upload Assessment

**Completed** - Mar 29 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

**[ENMU RELG 1120 \(REL 101\) recert HUM AREA V](#)**

**Filename:** ENMU\_RELG\_1120\_REL\_101\_recert\_HUM\_AREA\_V.pdf **Size:** 57.7 kB

## Upload Rubric

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

**Application: 0000001445**

## Summary

**ID:** 0000001445

**Status:** Under Review

**Last submitted:** Mar 18 2021 04:47 PM (MDT)

## Application Form

**Completed** - Mar 18 2021

## Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

### Contact Information

Name	Michael Bilopavlovich
Title	Faculty
Phone	5754614413 ext. 150
Email	<a href="mailto:michaelb@mesalands.edu">michaelb@mesalands.edu</a>

### Submitting Institution

Name of HEI	Mesalands Community College
Submitting Department	Academic Affairs

### Chief Academic Officer

Name	Natalie Gillard
Email	<a href="mailto:natalieg@mesalands.edu">natalieg@mesalands.edu</a>



## Registrar

Name	Forrest Kaatz
Email	<a href="mailto:forrestk@mesalands.edu">forrestk@mesalands.edu</a>

### Is this application for your entire system (ENMU, NMSU, & UNM)?

No

## Institutional Course Information

Prefix	(No response)
Number	(No response)
Title	(No response)
Number of credits	(No response)

### Was this course previously part of the New Mexico General Education curriculum?

No

## Co-requisite Course

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)

## New Mexico Common Course Information

Prefix	ENGL
Number	2610
Name	American Literature I

### A. Content Area and Essential Skills

#### To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Humanities - Information & Digital Literacy, Critical Thinking, Personal & Social Responsibility

### B. Learning Outcomes

#### List all common course student learning outcomes for the course.

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

1. Recognize the traditions of American literature and their connection to issues of culture, race, class, and gender.
2. Demonstrate familiarity with a variety of major works by American authors.
3. Explore the various influences and sources of American literature.
4. Apply effective analytic and interpretive strategies to American literary works using academic conventions of citation and style.

## Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

N/A

---

### C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

#### **Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.**

*In this box, provide a narrative that explains how the proposed course addresses **all** of the components of critical thinking.*

Critical thinking will be assessed in the formation and articulation of ideas within students' essay projects as well as in written and oral responses to assigned readings and homework. Students will demonstrate the ability to analyze a text and identify various features, such as rhetorical context, intended audience, credibility and bias, and rhetorical modes.

**Personal & Social Responsibility. *Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global***

*In this box, provide a narrative that explains how the proposed course addresses **2** of the components of personal & social responsibility.*

Students' understanding, engagement, and commitment to critical thinking and ethical evaluation will be evaluated through written responses (including essays, critiques, and short responses to readings), homework, discussions, presentations, and collaborative exercise. Essays will adhere to the same standardized formatting and citation standards as other communication and literature courses, such as provision of a clear thesis statement, supporting evidence, appropriately cited references to texts and additional critical material, and an appropriately formatted Works Cited/References page.

**Information & Digital Literacy. *Authority and Value of Information; Digital Literacy; Information Structure; and Research as Inquiry***

*In this box, provide a narrative that explains how the proposed course addresses **3** of the components of digital literacy.*

Information and digital literacy will be assessed throughout the semester as students utilize digital resources and word processing technology to research, compose, revise, format, and transmit their various assignments. Students will demonstrate competence utilizing research databases and other information tools to gather, organize and evaluate information, as well as their ability to navigate online learning platforms (where applicable) and standard electronic communications tools such as email, online chats, discussion forums, and digital meeting spaces such as Zoom or Skype.

#### D. Assessment Plan (Must be on file with HED by August 1, 2019)

Link to Institution's General Education Assessment Plan

<https://www.mesalands.edu/wp-content/uploads/2020/01/SLAC-Annual-Report-2018-19-Final.pdf>

This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).



Date

Mar 18 2021

## Upload Assessment

Completed - Mar 18 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

[ENGL 2610 Sample Assignment Am Lit I](#)

Filename: ENGL\_2610\_Sample\_Assignment\_Am\_Lit\_I.pdf Size: 60.0 kB

## Upload Rubric

Incomplete

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

# Application: 0000001467

Suzanne Balch - suzbal62@hotmail.com  
NM General Education Curriculum

Summary

**ID:** 0000001467

**Status:** Under Review

**Last submitted:** Mar 25 2021 10:10 AM (MDT)

## Application Form

**Completed** - Mar 25 2021

## Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

### Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

### Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

### Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

### Contact Information

Name	Suzanne Balch-Lindsay
Title	Asst VPAA
Phone	5755622314
Email	<a href="mailto:Suzanne.Balch@enmu.edu">Suzanne.Balch@enmu.edu</a>

### Submitting Institution

Name of HEI	Eastern New Mexico University
Submitting Department	Art

### Chief Academic Officer

Name	Jamie Laurenz
Email	<a href="mailto:Jamie.Laurenz@enmu.edu">Jamie.Laurenz@enmu.edu</a>

### Registrar

Name	DeLynn Bargas
Email	<a href="mailto:DeLynn.Bargas@enmu.edu">DeLynn.Bargas@enmu.edu</a>

**Is this application for your entire system (ENMU, NMSU, & UNM)?**

No

**Institutional Course Information**

Prefix	ARTH
Number	2120
Title	History of Art II
Number of credits	3

**Was this course previously part of the New Mexico General Education curriculum?**

Yes

**Co-requisite Course**

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)

**New Mexico Common Course Information**

Prefix	ARTH
Number	2120
Name	History of Art II

**A. Content Area and Essential Skills**



## To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Creative & Fine Arts - Communication, Critical Thinking, Personal & Social Responsibility

## B. Learning Outcomes

### List all common course student learning outcomes for the course.

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

1. Identify major artworks from a variety of regions and time periods.
2. Investigate the methods of producing various works of art.
3. Articulate an understanding and appreciation for the political, social, spiritual, intellectual, and cultural contexts of art forms.
4. Comprehend and apply terms, methodologies and concepts common to studies of art history, developing a language to further understanding of art.
5. Compare works across a range of historical styles and periods.

### Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

**\*\*submitted as R&R at request of A&T committee, May 2020.\*\***

## C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

***Communication. Genre and Medium Awareness, Application and Versatility; Strategies for Understanding and Evaluating Messages; and Evaluation and Production of Arguments.***

*In this box, provide a narrative that explains how the proposed course addresses **all** of the components of communication.*

Students will write paper drafts and create a slideshow presentation using skills of analysis gained from reading the textbook, reviewing unit content, and engaging art history vocabulary worksheets including Feldman's 4 step process of art historical analysis. Strategies for understanding and evaluating messages include compare/contrast of artworks, formal analysis, and contextual analysis. Each of these strategies help students elaborate on the intended "meaning" or message behind an artwork. Through drafting and revising their paper with instructor feedback, they learn how to produce a thesis statement within an introduction paragraph, body paragraphs, and a conclusion, tools that will transfer to acquiring the necessary skills for producing arguments across a range of disciplines at the University level. Students are required to use scholarly sources either from the course or the library, and use Chicago Manual of Style to generate citations because it is the standard style used in the discipline of art history.

***Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.***

*In this box, provide a narrative that explains how the proposed course addresses all of the components of critical thinking.*

Students will learn necessary skills of problem setting, via selecting then engaging a theme to elaborate upon with scholarly evidence within each assignment for the course. They will also learn how to select scholarly sources (they are prompted to primarily use articles that have been “peer reviewed”), and how to make sure the sources are relevant in supporting their claim or argument within a paper or presentation. Within their papers and presentations, they are instructed by prompts to generate a conclusion that summarizes why they made each claim, and how their evidence supports the claims or arguments they make in their assignments.

***Personal & Social Responsibility. Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global***

*In this box, provide a narrative that explains how the proposed course addresses 2 of the components of personal & social responsibility.*

Students evaluate a variety of themes that relate to artwork including politics, spirituality, social justice, etc. Within the assignments, they will be expected to consider how art illustrates human ethical relationships with each other, and the natural world. Through a shared journal forum, they will produce writing in response to prompts, then respond to their classmates posts. This form of “peer review” and response helps them collaboration and teamwork skills, while also maintaining a civic duty to respond thoroughly but with kindness and facilitative feedback to their peers.

#### D. Assessment Plan (Must be on file with HED by August 1, 2019)

Link to Institution's General Education Assessment Plan

<https://www.enmu.edu/about/public-documents/assessment/general-education-assessment-reports>

This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).

A handwritten signature in black ink on a light gray background. The signature is stylized, starting with a large loop on the left, followed by several connected strokes that end in a small, distinct flourish on the right.

Date

Mar 24 2021

## Upload Assessment

**Completed** - Mar 24 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

### [ENMU R&R ARTH 2120 Art History II](#)

**Filename:** ENMU\_RR\_ARTH\_2120\_Art\_History\_II.pdf **Size:** 169.1 kB

## Upload Rubric

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

# Application: 0000001434

Dinah Hamilton - dinah.hamilton@enmu.edu  
NM General Education Curriculum

## Summary

**ID:** 0000001434

**Status:** Under Review

**Last submitted:** Mar 17 2021 11:30 AM (MDT)

## Application Form

**Completed** - Mar 17 2021

## Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17**,

**2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

### Contact Information

Name	Dinah Hamilton
Title	Department Chair
Phone	575-315-1160
Email	<a href="mailto:Dinah.Hamilton@enmu.edu">Dinah.Hamilton@enmu.edu</a>

### Submitting Institution

Name of HEI	ENMU-Ruidoso
Submitting Department	History, Humanities and Social Sciences

### Chief Academic Officer

Name	Coda Omness
Email	<a href="mailto:Coda.Omness@enmu.edu">Coda.Omness@enmu.edu</a>

## Registrar

Name	Amy Means
Email	<a href="mailto:Amy.Means@enmu.edu">Amy.Means@enmu.edu</a>

### Is this application for your entire system (ENMU, NMSU, & UNM)?

No

### Institutional Course Information

Prefix	CJUS
Number	2360
Title	Criminal Procedures
Number of credits	3

### Was this course previously part of the New Mexico General Education curriculum?

No

### Co-requisite Course

Prefix	N/A
Number	(No response)
Title (if applicable)	(No response)

## New Mexico Common Course Information

Prefix	CJUS
Number	2360
Name	Criminal Procedures

### A. Content Area and Essential Skills

#### To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Social & Behavioral Sciences - Communication, Critical Thinking, Personal & Social Responsibility

### B. Learning Outcomes

#### List all common course student learning outcomes for the course.

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

1. Identify Constitutional limits on police actions to arrest or search including the history and development of the exclusionary rule and the impact of the 'due process revolution' on criminal procedure
- .2. Explain limits on field interviews and police interrogations of suspects.
3. Describe trial court procedures that conform to the Constitution
- .4. Summarize Constitutional civil liability for police.
5. Assess elements of judicial review in American courts to fact scenarios found in case law.



## Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

None

### C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

**Communication. Genre and Medium Awareness, Application and Versatility; Strategies for Understanding and Evaluating Messages; and Evaluation and Production of Arguments.**

*In this box, provide a narrative that explains how the proposed course addresses **all** of the components of communication.*

Students are prepared to become versatile communicators who can respond to a diverse range of situations with appropriate written, oral, visual, or digital texts and performances. This is accomplished by the students completing: A major paper, unit written assignments and unit discussion postings. All papers are required to be submitted in APA format.

Students learn how to evaluate court decisions and current laws and present their own arguments regarding these topics. Weekly classroom discussions are also assigned in which students post their opinion on controversial search and seizure cases or court decisions and respond to other student's discussion postings.

**Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of critical thinking.*

Students utilize critical skills by analyzing criminal procedures and the Constitution, evaluating problems and solutions in past and current court decisions and proceedings.

Students engage in problem setting with attention to types of criminal procedures such as search and seizure, stop and frisk, arrests, evidence collection and the court system. Students discuss evidence collection as it relates to presentation in court. Attention is given to each distinctive area of the how different evidence is collected and its relation to Constitutional law. Disparities in the way in which investigation manipulation can occur are discussed as it relates to socioeconomic status and race. The course utilizes power points, subject related websites and peer-reviewed journal articles.

Evidence acquisition is obtained in a final research paper which asks students to provide details on subject apprehension or factual materials on the type of investigation utilized and the entire court proceeding. Students utilize their textbook and website readings to form an argument. Then students must provide an argument as to whether any Constitutional violations occurred. Students must provide details about the case by discussing events of the case, including searches for evidence and the outcome of the trial and any appeals. They must provide explicit details of the case and their assessment of the entire criminal procedural process. The final paper is required is graded with written feedback on the overall contents of the paper.

The five-page written paper must provide logical reasoning and arrive at a conclusion. The student must provide a thesis, summary of the criminal case, argumentation and supporting evidence.

Students are also asked to evaluate evidence on several current criminal procedural hot topics in weekly discussion postings. Students are asked to respond to the original instructor posting and respond to at least one other student's post.

**Personal & Social Responsibility. *Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global***

*In this box, provide a narrative that explains how the proposed course addresses 2 of the components of personal & social responsibility.*

This course seeks to introduce students to Constitutional law and procedures. Searches, forensic evidence and trial proceedings are discussed. Likewise, racial, socioeconomical and ethical considerations are discussed as they pertain to the way in which evidence is collected and the outcome of the trial including sentencing and appeals. Students are exposed to landmark Constitutional cases and discuss whether they agree with the court decision . Students also study current court decisions and how these decisions impact our society today.

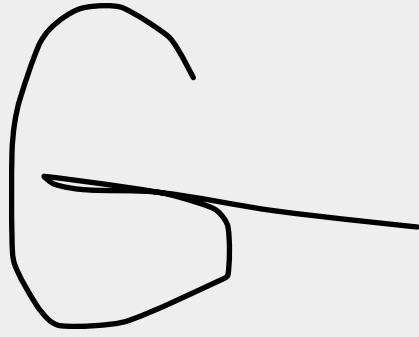
Civic discourse, civic knowledge and engagement occurs locally and globally. Students participate in weekly discussions in which they form opinions on topics such as the searches, adjudication and sentencing . The students must respond to other students posts in relation to the topic. In recent times, court procedures such as gun laws and a gun owners right to utilize their weapon provide an opportunity to discuss personal and social responsibility in ensuring that Constitutional laws are protected, but safety for others is also considered.

#### **D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

The assessment plan is currently under construction and will be available on the college website.

This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).



**Date**

Mar 17 2021

## Upload Assessment

**Completed** - Mar 17 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

### [CJUS 2360 Assignment and Rubric](#)

**Filename:** CJUS\_2360\_Assignment\_and\_Rubric.pdf **Size:** 240.9 kB

## Upload Rubric

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

# Application: 0000001477

Robert Moore - Robert.Moore@rm01.enmuros.cc.nm.us  
NM General Education Curriculum

### Summary

**ID:** 0000001477

**Status:** Under Review

**Last submitted:** Mar 25 2021 10:11 AM (MDT)

# Application Form

Completed - Mar 25 2021

## Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

### Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

### Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

### Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.

- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

### Contact Information

Name	Robert Moore
Title	Assistant VP
Phone	5756247001
Email	<a href="mailto:robert.moore@roswell.enmu.edu">robert.moore@roswell.enmu.edu</a>

### Submitting Institution

Name of HEI	ENMU-Roswell
Submitting Department	Humanities

### Chief Academic Officer

Name	Annemarie Oldfield
Email	<a href="mailto:annemarie.oldfield@roswell.enmu.edu">annemarie.oldfield@roswell.enmu.edu</a>

### Registrar

Name	Linda Neel
Email	<a href="mailto:linda.neel@roswell.enmu.edu">linda.neel@roswell.enmu.edu</a>

### Is this application for your entire system (ENMU, NMSU, & UNM)?

No

## Institutional Course Information

Prefix	ARTH
Number	2110
Title	History of Art I
Number of credits	3

## Was this course previously part of the New Mexico General Education curriculum?

Yes

## Co-requisite Course

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)

## New Mexico Common Course Information

Prefix	ARTH
Number	2110
Name	History of Art I

## A. Content Area and Essential Skills

## To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Creative & Fine Arts - Communication, Critical Thinking, Personal & Social Responsibility

## B. Learning Outcomes

### List all common course student learning outcomes for the course.

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

1. Identify major artworks from a variety of regions and time periods.
2. Investigate the methods of producing various works of art.
3. Articulate an understanding and appreciation for the political, social, spiritual, intellectual, and cultural contexts of art forms.
4. Comprehend and apply terms, methodologies and concepts common to studies of art history, developing a language to further understanding of art.
5. Compare works across a range of historical styles and periods.

### Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

NA



## C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

### **Communication. Genre and Medium Awareness, Application and Versatility; Strategies for Understanding and Evaluating Messages; and Evaluation and Production of Arguments.**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of communication.*

[\*Genre and Medium Awareness:] The act of observing, interacting, and evaluating art is an exercise in communication: reading the art / artist, examining the “messages” or meaning of the art / artist, and sharing those messages to a larger (or personal) audience make up the bulk of assignments and activities. The special historical condition of the pieces considered (from cave paintings to sand mandalas) allows students to see if the messages change over time or in different cultures; to ask, in essence, if culture determines meaning or if some meanings are timeless. Students are first introduced to the major genres and movements in art through vocabulary exercises, faculty lecture, and a series of readings that include pictorial representations of art works ranging from Egyptian monoliths to European death masks. As students learn to achieve versatility within the genres, one assignment asks students to imagine a famous early work of art (the Trojan Horse) and imagine how, in a different culture and different time period, the art might have manifest. Individual journals, quizzes, and discussion all allow students to reflect on, experience, and appreciate the different mediums and genres of art and the objects that arise from these mediums. We trace the development of diverse artistic styles, for example. Diversity also means the tools and mediums available to different artists, from charcoal to digital bytes. Often the artists are anonymous, which allows the art to be an “everyperson” expression of a culture’s activity. Through discussion and reflection essays, the students understand the “voice” of the artist is in many ways a stand-in for the voice of the community where the voice appears (Stonehenge represents in the same way the Easter Island heads do).

[Strategies for Understanding and Evaluating Messages:] Analysis of art requires extreme flexibility of imagination and the ability to connect observations to experience; students have multiple opportunities to search for “meaning” in discussions, reflection essays, and final exams. Exercises in class also suggest a pattern for how to look for messages. Students write their own response to an artwork (African warrior masks) and then read a small historical piece about mask making, a review from a respected critic about the African warrior experience, and a small essay on the tradition of mask making. Finally, they re-write their analysis now that they have other tools to evaluate the artwork, learning that their observation is just one way to evaluate and understand. As we mature our ability to talk about “style,” we simultaneously mature our ability to compare and contrast ideas, techniques, mediums, and ways of expressing from across genres, cultures, and artists. We emphasize the process of “broadening and deepening” our understanding in numerous exercises from artifact examination discussions in class to our final essays dedicated to a student’s selected artwork. Through essays and discussion, students learn to articulate an understanding and appreciation for art forms’ political, social, spiritual, intellectual, and cultural contexts. Art does not exist in a vacuum. The work is making a religious, societal, or political statement based on the time period’s hegemonic view. Audiences are defined by various social and geographic perceptions/constraints and whether the viewers shared or shared similar sets of meanings with the creators. All students engage these concerns when they research the era and artist, sharing in discussions and essays.

[\*Evaluation and Production of Arguments:] Discussions compel students to respond to photographs or lithographs or reproduction of artworks, primary texts, other students’ positions, as well as professional critiques/reviews; the discussions and written responses model techniques of textual and cultural evaluation. For many of the statements students make (in discussions, for example), we emphasize currency, relevance, authority, accuracy, and purpose. Students create their credible arguments; many assignments make conscious the evaluation techniques necessary to assure thoughtful and hearty presentation. Students arrive at defensible, relevant, and interesting conclusions based on sound and creative premises in their essays, presentations, and short assignments. They are guided to ask questions, explore, surmise, posit opinions, and support their ideas through different deductive reasoning and Socratic teaching strategies. Repeated exposure to primary and secondary sources (artworks and critiques of artwork) allows students to engage examples of excellent and poor reasoning, logical fallacies, misguided conclusions, affirming organization, and general patterns of argument valuable for college-level academic discourse.

---

***Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and***

## ***Reasoning/Conclusion.***

*In this box, provide a narrative that explains how the proposed course addresses **all** of the components of critical thinking.*

[\*Problem Setting:] During the semester, students respond to multiple periods of art and artifacts representing diverse forms and types from cave paintings to Grecian urns; they share their reactions and experiences through reflective documents, response essays, quizzes, exams, and an analytical research paper; they participate in discussions nearly every class where they must determine and tackle a particular problem or issue a work of art or artist presents; they offer presentations, work in small groups to explore and present discoveries, and share their reactions informally with classmates.

[Evidence Acquisition:] Students access and consider the evidence available through their assigned course texts, the library's general collection, and the University's numerous databases (e.g., EBSCO, Academic Search Complete, ProQuest, JSTOR, etc.), and faculty-provided material to support their observations, analyses, and arguments forwarded in-class discussion and on assignments. Several assignments, like their exams, require them to share evidence they have accumulated; other assignments, like the reflective responses, are designed to enhance students' research and discovery skills and reward effective use of outside sources. The first essential skill the course works through is developing a vocabulary of terms, genres, and modes relevant to the study of history and to art; as they explore and apply these terms (what's the difference between archeology and restorative art?, they gain confidence in identifying types of art and historical traditions. It is crucial to understand and put artistic terminology into practice; students' sophistication and ability to analyze becomes more sophisticated when they can correctly discern bronze age ornamentation from Egyptian cuneiform, for example. To "interpret" art and to assay history, students must first acquire a broad vocabulary both of historical context, art works, and artists (though many are unknown). We use these terms frequently to help the student retain them and reinforce their practice when discussing or writing about art works assigned in class.

[\*Evidence Evaluation:] Discussions compel students to respond to digitally reproduced art works, primary texts, other students' positions, as well as professional critiques/reviews; the discussions and written responses model techniques of textual and cultural evaluation. For many of the statements students make (in discussions, for example), we emphasize currency, relevance, authority, accuracy, and purpose. Students create their credible arguments; many assignments make conscious the evaluation techniques necessary to assure thoughtful and hearty presentation (focused/evaluated annotation and

response to individual works is an example).

[\*Reasoning/Conclusion(s):] Students arrive at defensible, relevant, and interesting conclusions based on sound and creative premises in their essays, presentations, and short assignments. They are guided to ask questions, explore, surmise, posit opinions, and support their opinions through different deductive reasoning and Socratic teaching strategies. To truly appreciate the history of art, a student needs to exercise a fluid and steady analytic approach where they break apart individual components (time period, material, historical pressures, religious practices, etc.) and work toward larger declarations. To find the “meaning” in history or art, we work in small “truths” and hope to hit on larger truths. The process is most easily identifiable in the short responses, discussions, and the exams where students are asked to engage an artifact by identifying each part and then explaining how the part works toward a “whole” effect, how the artifact fits into (or represents a transition away from) tradition. Their conclusions are based on their struggling through the process. Repeated exposure to primary and secondary sources (art works and critiques art works, historical documents) allows students to engage examples of good and poor reasoning, logical fallacies, misguided conclusions, affirming organization, and general patterns valuable for college-level academic discourse.

**Personal & Social Responsibility. *Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global***

*In this box, provide a narrative that explains how the proposed course addresses 2 of the components of personal & social responsibility.*

[\*Intercultural Reasoning and Intercultural Competence:] During the semesters, through the observation and encounter of artworks, readings, research, and discussions, students immerse themselves in a variety of socio-cultural issues in the art world across time periods, cultures, regions, and methods of production; examine how past socio-cultural artwork (and movements) informs current artists; and learn to appreciate and approach differing artistic styles, attitudes, and artifacts across generations and cultures. Student progress is measured in part on their ability to recognize differing modes, practices, and styles of art and reflect their understanding in essays, projects, and presentations; many of the assignments ask them to engage, react to, and otherwise consider issues most relevant to the social role of art, including ceremonial, religious, romantic, laudatory, exemplary, etc.; the issues are topics for discussion, essays, and exams.

[\*Civic Knowledge and Engagement—Local and Global:] Across the semester, students tackle contemporary and past artworks and investigate them; most of the works are public or shared on a local/global level; students learn about how and where the art is stored and viewed and, consequently, gain knowledge about the civic nature of art. Students also explore the local and global contexts surrounding the creation, distribution, and context of their artifacts—drawing connections across diverse points of interest from representations of political power to depictions of grace, from funerary urns to baptismal ornamentation (one project, for example, asks students to select two artworks from different regions of the world that serve the same purpose and compare/contrast them [a student might look at a mausoleum in New Orleans and an Egyptian tomb, for example]). Students strive to contextualize academic discourses with global movements, structures, and attitudes. Nearly every artwork embraces the conversation of civic responsibility either as a critique, a model, or an investigation of communities in action; the paintings, sculptures, architecture, etc., provide the leaping-off point for conversations about how the individual conflicts with, correspondent to, or estranged from society; their essays allow them to reflect and sharpen their understanding.

#### **D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

[https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan\\_ENMURoswell.pdf](https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan_ENMURoswell.pdf)

**This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).**

A handwritten signature in black ink, consisting of the letters 'Rm' followed by a diagonal slash and the letters 'Amo'.

**Date**

Mar 25 2021

### **Upload Assessment**

**Completed** - Mar 25 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

#### **ARTH 2110 Assignment**

**Filename:** ARTH\_2110\_Assignment.pdf **Size:** 254.0 kB

### **Upload Rubric**

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

**Application: 0000001442**

## Summary

**ID:** 0000001442

**Status:** Under Review

**Last submitted:** Mar 18 2021 03:44 PM (MDT)

## Application Form

**Completed** - Mar 18 2021

## Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

### Contact Information

Name	Michael Bilopavlovich
Title	Faculty
Phone	5754614413 ext. 150
Email	<a href="mailto:michaelb@mesalands.edu">michaelb@mesalands.edu</a>

### Submitting Institution

Name of HEI	Mesalands Community College
Submitting Department	Academic Affairs

### Chief Academic Officer

Name	Natalie Gillard
Email	<a href="mailto:natalieg@mesalands.edu">natalieg@mesalands.edu</a>



## Registrar

Name	Forrest Kaatz
Email	<a href="mailto:forrestk@mesalands.edu">forrestk@mesalands.edu</a>

### Is this application for your entire system (ENMU, NMSU, & UNM)?

No

### Institutional Course Information

Prefix	CHEM
Number	115
Title	Introduction to Chemistry I
Number of credits	4

### Was this course previously part of the New Mexico General Education curriculum?

Yes

### Co-requisite Course

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)

## New Mexico Common Course Information

Prefix	CHEM
Number	1215C
Name	General Chemistry I Lecture and Laboratory for STEM Majors

### A. Content Area and Essential Skills

---

#### To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Science - Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning

---

### B. Learning Outcomes

---

## List all common course student learning outcomes for the course.

Common Course Student Learning Outcomes (find Common Course SLOs at:

<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

### STUDENT LEARNING OUTCOMES

1. Use dimensional analysis, the SI system of units and appropriate significant figures to solve quantitative calculations in science.
2. Explain the structure of atoms, isotopes and ions in terms of subatomic particles.
3. Understand the differences between physical and chemical changes to matter, and utilize the IUPAC system of nomenclature and knowledge of reaction types to describe chemical changes, predict products and represent the process as a balanced equation.
4. Apply the mole concept to amounts on a macroscopic and a microscopic level and use this to perform stoichiometric calculations including for reactions in solution, gases and thermochemistry.
5. Apply the gas laws and kinetic molecular theory to relate atomic level behavior to macroscopic properties.
6. Describe the energy conversions that occur in chemical reactions and state changes, relating heat of reaction to thermodynamic properties such as enthalpy and internal energy, and apply these principles to measure and calculate energy changes in reaction.
7. Use different bonding models to describe formation of compounds (ionic and covalent), and apply knowledge of electronic structure to determine molecular spatial arrangement and polarity.
8. Analyze how periodic properties (e.g. electronegativity, atomic and ionic radii, ionization energy, electron affinity, metallic character) and reactivity of elements results from electron configurations of atoms.

### Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

N/A

## C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

### **Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.**

*In this box, provide a narrative that explains how the proposed course addresses **all** of the components of critical thinking.*

Students will develop inferences and problem solving solutions based on data that they derive from the labs and observations. In the section of the class on Stoichiometry students have to use a computer model to determine molecular structures and defend why the bonds are not more stable in other angles and locations. Students will collect evidence, and evaluate that evidence continually throughout the course using the twelve different labs, lectures, and five research articles. The research articles challenge the student to evaluate the evidence presented to them and determine if the evidence provides logical scientific reasoning and should be more fact or more theory. They will have to form conclusions that are scientifically valid given their research and data. Critical Thinking is key to this course and developing scientific logic, students are constantly challenged to think beyond the given facts and postulates and see if they appear to be applicable in each research area in the course. Chemistry includes numerous areas of critical thinking. One such area in this course is molecular bonding and the bond types that can occur and change the structure of the molecule. Students have to apply reasoning skills as they exam the most stable resonance structures and determine the most stable isotopes and ions that can exist with changes in the sub-molecular structure. The critical thinking skills are assessed through Lab Write-Ups and on essay questions on written tests. Students have to learn in one lecture challenge that there is more than one way to examine existing particles and that a two dimensional look is not all that they must consider, thus they begin to learn Critical thinking quickly in this class.

**Quantitative Reasoning. Communication/Representation of Quantitative Information; Analysis of Quantitative Arguments; and Application of Quantitative Models**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of quantitative reasoning.*

Students are given data practice activities throughout the course in which they are to examine quantitative information and assess its relevance and analyze the data for cumulative conclusions. Students determine molarities, molalities, and percent compositions both as calculations in the lecture and as applications in five of the labs. Students are asked to use scientific equipment to quantitatively determine data and often have to estimate with a triple beam balance and learn precision with the analytical balance and then determine the percent error. The same for scientific glassware using Florence flasks, in comparison to a calibrated beaker, in comparison to a graduated cylinder and once again determining the percent error. The collection, application, and quantifying of data in the labs is a major component of the class. In one lab the students use an analytical balance to measure various metals and have to quantify the Gram Molecular Mass, and apply that data to determine how many atoms of that metal exist by using molar calculations and Avogadro's number. Students also examine past molecular models such as the Bohr Model and compare it to other suggested models to develop Quantitative Arguments of what we should see as a fact and what we should classify as a theory.

**Personal & Social Responsibility. Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global**

*In this box, provide a narrative that explains how the proposed course addresses 2 of the components of personal & social responsibility.*

Students are asked to ethically reason on scientific issues on both local and global levels. In one assignment students calculate their own personal use of carbon dioxide and calculate their CO2 footprint. The mix of science and the people that both formulate and use the science is experienced by the students as they develop intercultural reasoning and intercultural differences. In one assignment students have to look at the cost of science and look the lives of such science researchers as Pierre and Marie Currie and their sacrifice to discover data on radiation. Students then look at the different cultures that have contributed to science as we know it today and the ethical reasoning that they had to make to make these contributions. Students have to collaborate and use teamwork in the labs as the course data is often synthesized for the total research data to be relevant. best part of each lab is the collaboration of all the data to create a class set of data showing that collaboration is more than a key to science it is the heart of global sustainability of science. The diversity of how to handle civic issues and world concerns is a vital area for the course and students have the effects of science, but have to look at the effect of the research on people and society. Students have to look at applications of science such as nuclear reactors, cyclotrons, and even global warming and understand that not all people will agree on an opinionated topic, but good scientific research and correct data is our personal and social responsibility to our local and global world. They learn from doing the reaction and comparison papers that Science is not what you say on social medial, but what you determine to be valid data in the science lab, and your personal and social responsibility to society is tangible and sustainable and not just your nonresearched opinion.

#### **D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

<https://www.mesalands.edu/wp-content/uploads/2020/01/SLAC-Annual-Report-2018-19-Final.pdf>

This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).



---

**Date**

Mar 18 2021

## Upload Assessment

**Completed** - Mar 18 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

### [Chem 115 Sample Assessment\\_Lab 4](#)

**Filename:** Chem\_115\_Sample\_Assessment\_\_Lab\_4\_Tq4begS.pdf **Size:** 53.9 kB

## Upload Rubric

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

# Application: 0000001484

Robert Moore - Robert.Moore@rm01.enmuros.cc.nm.us  
NM General Education Curriculum

### Summary

**ID:** 0000001484

**Status:** Under Review

**Last submitted:** Mar 25 2021 11:44 AM (MDT)

## Application Form

**Completed** - Mar 25 2021

# Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout



the course.

### Contact Information

Name	Robert Moore
Title	Assistant VP
Phone	5756247001
Email	<a href="mailto:robert.moore@roswell.enmu.edu">robert.moore@roswell.enmu.edu</a>

### Submitting Institution

Name of HEI	ENMU-Roswell
Submitting Department	Social and Behavioral Science

### Chief Academic Officer

Name	Annemarie Oldfield
Email	<a href="mailto:annemarie.oldfield@roswell.enmu.edu">annemarie.oldfield@roswell.enmu.edu</a>

### Registrar

Name	Linda Neel
Email	<a href="mailto:linda.neel@roswell.enmu.edu">linda.neel@roswell.enmu.edu</a>

### Is this application for your entire system (ENMU, NMSU, & UNM)?

No

### Institutional Course Information

Prefix	ECON
Number	2120
Title	Microeconomic Principles
Number of credits	3

**Was this course previously part of the New Mexico General Education curriculum?**

Yes

**Co-requisite Course**

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)

**New Mexico Common Course Information**

Prefix	ECON
Number	2120
Name	Microeconomic Principles

**A. Content Area and Essential Skills**

**To which area should this course be added?**

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Social & Behavioral Sciences - Communication, Critical Thinking, Personal & Social Responsibility

## B. Learning Outcomes

---

**List all common course student learning outcomes for the course.**

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

1. Explain the concept of opportunity cost.
2. Demonstrate knowledge of the laws of supply and demand and equilibrium.
3. Use supply and demand curves to analyze responses of markets to external events.
4. Use supply and demand analysis to examine the impact of government intervention.
5. Explain and calculate price elasticity of demand other elasticities.
6. Demonstrate an understanding of producer choice, including cost and break-even analysis.
7. Compare and contrast the following market structures: perfect competition, monopoly, monopolistic competition, and oligopoly.

---

### **Institution-specific Student Learning Outcomes**

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

NA

## C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

***Communication. Genre and Medium Awareness, Application and Versatility; Strategies for Understanding and Evaluating Messages; and Evaluation and Production of Arguments.***

*In this box, provide a narrative that explains how the proposed course addresses all of the components of communication.*

This course weaves the essential skills associated with the Communication content area throughout the course. To address "Genre and Medium Awareness," students work with online discussions of open-ended questions testing student communication and person-to-person interaction. The ultimate goal of the discussion board assignment is to get students talking to each other. Discussion questions include positive analysis that ask them to apply the ideas, concepts and tools learned in the course to different situations or problems (Medium awareness, application and versatility; Understanding and evaluating messages; Valuation and production of arguments). Discussion questions also ask students to evaluate normative questions (Valuation and production of arguments), questions that are based on principles of ethics and societal norms. For the subcomponent "Application and Versatility" skills, students apply what they have learned to a variety of problems and applications. To address "Strategies for Understanding and Evaluating Messages" students practice close readings of resources that have particular value in the context of the course. These readings give students exposure to different viewpoints and ideas. Subsequently, students translate their learning into the "Evaluation and Production of Arguments" by creating and refining their own arguments adapted to specific assignment guidelines.

***Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.***

*In this box, provide a narrative that explains how the proposed course addresses all of the components of critical thinking.*

This course weaves the essential skills associated with the Critical Thinking content area throughout the course. The most important skill developed when studying economics is cultivating a way of thinking that requires a critical eye and a rigorous method of logical reasoning. The course emphasizes the use of the scientific method as a means to analyze economic problems through observation and the development and testing of economic theories (Problem Setting; Evidence Acquisition; Evidence Evaluation; Reasoning/Conclusion). The course requires students to evaluate and employ assumptions (Problem Setting; Evidence Acquisition; Evidence Evaluation) and to think critically about theories that assert cause and effect relationships (Reasoning/Conclusion). Students often find theoretical concepts introduced in the course to be challenging as they require them to think hard about certain relationships (Assessment of Problem Setting by Question Identification). In fact, students find the microeconomic theories based on certain models challenging as the underlying logic is complex. Examples of such complexity include the application of first principle concepts such as opportunity cost, the use and application of cost-benefit analysis, the use and application of the supply and demand model, the use of cost concepts and how they are used to make decisions; the various market structures and how they affect decision making; market failures, including externalities, public goods, poverty and inequality (Assessment Of Evidence Acquisition; Evidence Evaluation; Reasoning/Conclusion). The course evaluates students' learning based on homework assignments that correspond to each module in the course. For example, there are homework assignments for the modules on economic principles, supply and demand, elasticity concepts, cost concepts, perfect competition, monopoly, monopolistic competition and oligopoly, externalities and public goods, and poverty and inequality. Homework questions are assigned using a homework program (Cengage Learning) that includes multiple choice questions and graphing exercises (Assessment of Evidence Acquisition and Reliability Evaluation). Homework also includes the discussion assignments reviewed in the communication section. There are normally five multiple choice exams: four Unit Exams and a Final. Exam questions test for the content knowledge and critical thinking skills that were introduced in the course (Assessment Of Evidence Acquisition; Evidence Evaluation; Reasoning/Conclusion).

**Personal & Social Responsibility. *Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global***

*In this box, provide a narrative that explains how the proposed course addresses 2 of the components of personal & social responsibility.*

The course provides a framework for analyzing different types of problems. Early in the course, we distinguish between positive and normative analysis (intercultural reasoning and competence; Human worlds; Ethical reasoning; Collaboration; Civic knowledge). While positive economics is based on fact and cannot be approved or disapproved, normative economics is based on value judgments. Positive analysis, or questions about facts and causal relationships build students critical thinking skills. Normative analysis, on the other hand, is particularly pertinent to personal and social responsibility issues. Personal and social responsibility topics that are particularly important to this class include: questions about trade, why it is beneficial as a means for increasing overall economic benefits to society, but often implies winners and losers and whether it is possible to compensate those harmed by trade (Assessment of intercultural reasoning and competence; Human worlds; Civic knowledge); questions about government action to address social problems like low income through the minimum wage (Assessment of Human worlds; Ethical reasoning; Civic knowledge and engagement); high costs for housing and the likely harm caused by rent control (Assessment of Human worlds; Ethical reasoning; Civic knowledge and engagement); negative externality problems such as those related to pollution and ways to address them (Assessment of Human worlds; Ethical reasoning; Civic knowledge); positive externality problems and why they justify public investments in in public schools and public health (Assessment of Human worlds; Ethical reasoning; Civic knowledge); problems of poverty, income inequality and public policies that can improve them (Assessment of Human worlds; Ethical reasoning; Civic knowledge and engagement). Issues like these are introduced in class meetings. Students are engaged through the use of case studies and by discussion questions (Comprehensive assessment covers all component skills).

## D. Assessment Plan (Must be on file with HED by August 1, 2019)

Link to Institution's General Education Assessment Plan

[https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan\\_ENMURoswell.pdf](https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan_ENMURoswell.pdf)

**This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).**



**Date**

Mar 25 2021

## Upload Assessment

**Completed** - Mar 25 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

### [ECON 2120 Microeconomics Assessment](#)

**Filename:** ECON\_2120\_Microeconomics\_Assessment.pdf **Size:** 287.9 kB

## Upload Rubric

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

# Application: 0000001487

Robert Moore - Robert.Moore@rm01.enmurocc.nm.us  
NM General Education Curriculum

## Summary

**ID:** 0000001487

**Status:** Under Review

**Last submitted:** Mar 25 2021 02:42 PM (MDT)

## Application Form

**Completed** - Mar 25 2021

## Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course



# Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

## Contact Information

Name	Robert Moore
Title	Assistant VP
Phone	5756247001
Email	<a href="mailto:robert.moore@roswell.enmu.edu">robert.moore@roswell.enmu.edu</a>

## Submitting Institution

Name of HEI	ENMU-Roswell
Submitting Department	Science

## Chief Academic Officer

Name	Annemarie Oldfield
Email	<a href="mailto:annemarie.oldfield@roswell.enmu.edu">annemarie.oldfield@roswell.enmu.edu</a>

## Registrar

Name	Linda Neel
Email	<a href="mailto:linda.neel@roswell.enmu.edu">linda.neel@roswell.enmu.edu</a>

**Is this application for your entire system (ENMU, NMSU, & UNM)?**

No

**Institutional Course Information**

Prefix	BIOL
Number	2610
Title	Principles of Biology: Biodiversity, Ecology, and Evolution
Number of credits	3

**Was this course previously part of the New Mexico General Education curriculum?**

Yes

**Co-requisite Course**

Prefix	BIOL
Number	2610L
Title (if applicable)	Principles of Biology: Biodiversity, Ecology, and Evolution Lab

**New Mexico Common Course Information**

Prefix	BIOL
Number	2610
Name	Principles of Biology: Biodiversity, Ecology, and Evolution Lecture + Lab

## A. Content Area and Essential Skills

---

### To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Science - Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning

---

## B. Learning Outcomes

---

**List all common course student learning outcomes for the course.**

Common Course Student Learning Outcomes (find Common Course SLOs at:

<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

BIOL 2610 Principles of Biology: Biodiversity, Ecology, and Evolution

1. Understand the scientific method and apply it to biological topics of genetics, evolution, ecology, and biodiversity.
2. Apply quantitative reasoning and scientific thinking to real world problems.
3. Identify and describe the basic principles of evolution.
4. Analyze the relationships between the genetics of populations and evolution.
5. Analyze the processes of speciation.
6. Describe how the hierarchical classification scheme is used to categorize organisms.
7. Describe how DNA research has modernized bio systematics.
8. Compare and contrast the general characteristics of each of the living domains and kingdoms.
9. Relate the structure of organisms to the way they function.
10. Explain how the life histories of organisms are adapted for different environments.
11. Relate the complexity of behavior to the overall complexity of an organism.
12. Describe the ecological roles played by organisms in each kingdom.
13. Compare basic ecological principles at the population and community levels of organization.
14. Describe and compare energy relationships and the cycling of materials in ecosystems.

BIOL 2310 L Principles of Biology: Biodiversity, Ecology, and Evolution Lab

1. Describe and apply the scientific method to generate testable hypotheses in evolution and ecology.
2. Design and conduct laboratory experiments using relevant laboratory equipment and methods.
3. Analyze and report data generated during laboratory activities and experiments.
4. Communicate scientific results from experiments in evolution, ecology, and biodiversity.

## Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

NA

### C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

#### **Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.**

*In this box, provide a narrative that explains how the proposed course addresses **all** of the components of critical thinking.*

One way that critical thinking skills are assessed in the lecture course is that for each chapter of the text, students use a database program that has thousands of questions for each chapter that span the range of Bloom's Taxonomy that are assigned for homework. I can assess student understanding in multiple ways and at multiple levels. For example, questions start with the basics like identifying the names of the major cellular structures of plants and animals or principal modes of reproduction among angiosperms, which is important for our course. Then, I assess their ability to apply their learning to more advanced topics through experiments in the text and working with data exercises that highlight important research and instill the foundation of scientific investigation in students by always following the hypothesis - method - results - conclusion framework.

Another high-level activity for students utilizes interactive animations. These high-resolution,

comprehensive animations cover complex processes like evolution, reproductive cycles, and ecological cycles, and require the student to answer questions, interact with the artwork, and drive the animation forward. They must demonstrate an understanding in order for the animation to continue. It is an active learning animation, rather than just a passive viewing experience. The assignments not only require the students to view and participate in the animation; they tag them to a series of questions beginning with remembering baseline information from the animation and ramping up to higher level, case study-like questions and problems.

For the laboratory course, the goal is to promote critical thinking and relate learning to real world scenarios rather than rely mainly on rote memorization of scattered facts. One way this is accomplished is by using case studies. These allow us to create learning environments that give students opportunities to apply, analyze, synthesize, and evaluate information. Another method used weekly are experimental labs. For example, after a discussion of transpiration in plants in lecture, the students are presented with an experimental lab where students follow the hypothesis – method – results – conclusion framework. The students are broken into groups of three or four and read a brief overview of xylem and phloem and what role these structures play in the transport of water and nutrients in plants. The students answer some prelab questions and then in a stepwise fashion, students are expected to identify the difference between xylem and phloem, model transpiration in test tubes, and then examine transpiration using actual plants. At the completion of the lab, the students then answer a series of post lab questions based on their experiments. Students are then brought back together to discuss their individual group findings/answers. Each group of students is asked, at random, to present one part of the case to the entire class and share their findings. See Attachment 1 – Plant Transpiration Experiments and Attachment 2 Plant Transpiration Questions.

**Quantitative Reasoning. Communication/Representation of Quantitative Information; Analysis of Quantitative Arguments; and Application of Quantitative Models**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of quantitative reasoning.*

The majority of the quantitative reasoning skills are taught in the laboratory course. However, during lecture basic measurements, conversions, graphing, and how to interpret graphs are discussed and illustrated. In the laboratory, quantitative reasoning is used throughout the semester.

For example, during lecture a discussion of plant transpiration is discussed. This includes an explanation of the xylem and phloem and) is further discussed during lab as described above. Students are divided into small groups and record experimental data like volume, percent change, etc., and post lab questions where they must explain why the data did or did not change based on their results. Also, students are expected to graph their data as well as provide an interpretation for the graph. See Attachment 2 Plant Transpiration Questions. The majority of the labs are designed in this same fashion. The exception would be dissection labs, where students are looking at form and function. However, measurements are typically included with dissection labs for comparative purposes.

All experiments resolve around the use of the scientific method, data collection, interpretation of data, making conclusions, and making recommendations for further studies. All lab meetings require students to gather quantitative data. This data is then analyzed and interpreted. Students are taught to use Word, Excel, and PowerPoint to illustrate data in various formats. Basic statistical information is taught and used by students like central tendency (mean, median. and mode), hypothesis testing and statistical significance, and probability, .

**Personal & Social Responsibility. Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global**

*In this box, provide a narrative that explains how the proposed course addresses 2 of the components of personal & social responsibility.*

Biology is front page news, so it is important that we teach students to make connections between what

they learn in the classroom and what they see in everyday life. We integrate social issues into the biology curriculum, we model social responsibility for biology majors, and we demonstrate the need for biological literacy. Examples of how this is accomplished is when we discuss ecology, habitats, and/or biodiversity for lab we take the students out on a hike in our area or to a nearby conservation area to demonstrate these topics in action. We encourage students to be on the lookout for various environmental programs offered by our city and state that would provide our students with a science lesson while participating in physical activities. For example, students have planted trees for Arbor Day as well as visited local parks/zoos to remove litter, or act as docents. Additionally, we have students post their actions/activities through the discussion board thus reflecting their actions of a social context. Since other students in the class see these posts too, they see various ways to participate in the community. Often, this brings about more detailed discussions among students and creates curiosity and interest from students that would normally not participate in such activities.

During the biodiversity lecture, students learn that New Mexico is one of the most biologically diverse states in the nation. Students are introduced to conservation biology by using the BISON-M database. This web site is located on the New Mexico Game and Fish web site. Students use the database to learn about the conservation efforts for any mammal, bird, reptile, amphibian and/or many invertebrate species located with the state of New Mexico.

Students collaborate with each other in both the lecture and lab settings. This is especially true for the lab as students are able to form small groups to work with each other and move around the room more easily. Each week students work in groups to complete lab activities. Some grades are based on group projects and group participation. See Participation Rubric. Group participation is used for the purpose of promoting gains in content knowledge and critical thinking as well as demonstrating the importance of collaboration and teamwork.

As previously mentioned, student groups are formed to work on case studies. The groups are required to work through assigned cases to identify important questions and variables, state hypotheses, integrate important content information (supported by lecture), analyze data, and draw reasoned conclusions on possible solutions to real world issues. Case studies serve to connect student experiences to textbook content, making them more relevant to student daily life. This increases student engagement and reinforces basic principles and critical thinking.



#### **D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

[https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan\\_ENMURoswell.pdf](https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan_ENMURoswell.pdf)

**This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).**

A handwritten signature in black ink on a light gray background. The signature consists of the letters 'Rm' followed by a forward slash '/' and the letters 'Amo'.

**Date**

Mar 25 2021

### **Upload Assessment**

**Completed** - Mar 25 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

#### **[BIOL 2610 Assignment 2](#)**

**Filename:** BIOL\_2610\_Assignment\_2.pdf **Size:** 109.0 kB

### **Upload Rubric**

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

**Application: 0000001520**

## Summary

**ID:** 0000001520

**Status:** Under Review

**Last submitted:** Mar 29 2021 03:03 PM (MDT)

## Application Form

**Completed** - Mar 29 2021

## Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

### Contact Information

Name	Robert Moore
Title	Assistant VP
Phone	5756247001
Email	<a href="mailto:robert.moore@roswell.enmu.edu">robert.moore@roswell.enmu.edu</a>

### Submitting Institution

Name of HEI	ENMU-Roswell
Submitting Department	Science

### Chief Academic Officer

Name	Annemarie Oldfield
Email	<a href="mailto:annemarie.oldfield@roswell.enmu.edu">annemarie.oldfield@roswell.enmu.edu</a>

## Registrar

Name	Linda Neel
Email	<a href="mailto:linda.neel@roswell.enmu.edu">linda.neel@roswell.enmu.edu</a>

### Is this application for your entire system (ENMU, NMSU, & UNM)?

No

### Institutional Course Information

Prefix	CHEM
Number	1225
Title	General Chemistry II for STEM Majors
Number of credits	3

### Was this course previously part of the New Mexico General Education curriculum?

Yes

### Co-requisite Course

Prefix	CHEM
Number	1225L
Title (if applicable)	General Chemistry II Lab for STEM Majors

## New Mexico Common Course Information

Prefix	CHEM
Number	1225
Name	General Chemistry II for STEM Majors Lecture + Lab

### A. Content Area and Essential Skills

#### To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Science - Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning

### B. Learning Outcomes

#### List all common course student learning outcomes for the course.

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

#### Lecture

1. Explain the intermolecular attractive forces that determine physical properties and phase transitions, and apply this knowledge to qualitatively evaluate these forces from structure and to predict the physical properties that result.
2. Calculate solution concentrations in various units, explain the effects of temperature, pressure and structure on solubility, and describe the colligative properties of solutions, and determine solution concentrations using colligative property values and vice versa.
3. Explain rates of reaction, rate laws, and half-life, determine the rate, rate law and rate constant of a reaction and calculate concentration as a function of time and vice versa, as well as explain the collision model of reaction dynamics and derive a rate law from a reaction mechanism, evaluating the consistency

of a mechanism of a given rate law.

4. Describe the dynamic nature of chemical equilibrium and its relation to reaction rates, and apply Le Chatelier's Principle to predict the effect of concentration, pressure and temperature changes on equilibrium mixtures as well as describe the equilibrium constant and use it to determine whether equilibrium has been established, and calculate equilibrium constants from equilibrium concentrations and vice versa.
5. Describe the different models of acids and base behavior and the molecular basis for acid strength, as well as apply equilibrium principles to aqueous solutions, including acid base and solubility reactions, and calculate pH and species concentrations in buffered and unbuffered solutions.
6. Explain titration curves and speciation diagrams, as well as calculate concentrations of reactants from the former and determine dominant species as a function of pH from the latter.
7. Explain and calculate the thermodynamic functions, enthalpy, entropy and Gibbs free energy, for a chemical system, and relate these functions to equilibrium constants and reaction spontaneity; balance redox equations, express them as two half reactions and evaluate the potential, free energy and equilibrium K for the reaction, as well as predict the spontaneous direction.
8. Construct a model of a galvanic or electrolytic cell; or describe organic reactions.
9. Describe bonding theories, such as valence and molecular orbital theory.

#### Laboratory

1. Demonstrate and apply concepts associated with laboratory safety, including the possible consequences of not adhering to appropriate safety guidelines.
2. Demonstrate the computational skills needed to perform appropriate laboratory related calculations to include, but not be limited to determining the number of significant figures in numerical value with the correct units, solving problems using values represented in exponential notation, solving dimensional analysis problems, and manipulating mathematical formulas as needed to determine the value of a variable.
3. Perform laboratory observations (both qualitative and quantitative) using sensory experience and appropriate measurement instrumentation (both analog and digital).
4. Prepare solutions with an acceptable accuracy to a known concentration using appropriate glassware.
5. Perform basic laboratory operations related to, but not limited to, gas behavior, colligative properties of solutions, calorimetry, chemical kinetics, chemical equilibria, acid/base titrations, electrochemistry, metal reactivity, and qualitative analyses of ions.
6. Draw conclusions based on data and analyses from laboratory experiments.
7. Present experimental results in laboratory reports of appropriate length, style and depth, or through other modes, as required.

8. Relate laboratory experimental observations, operations, calculations, and findings to theoretical concepts presented in the complementary lecture course.
9. Design experimental procedures to study chemical phenomena.

---

### **Institution-specific Student Learning Outcomes**

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

NA

---

### **C. Narrative**

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

### **Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of critical thinking.*

All essential skills are exercised during as an application of the scientific method in lecture and laboratory course. Students practice critical thinking skills in several contexts and assessments: discussions, viewing videos, reading assigned articles, coaching activities, laboratory exercises and formal quizzes/exams. Formative assessment occurs through coaching activities and class discussion. Summative assessment occurs with quizzes, exams and an oral presentation.

### Problem Setting

Within lecture, students read articles or watch short videos after which they outline the key points and frame the problem. In the laboratory, students utilize the scientific method as a framework for problem solving. Students develop and investigate testable hypothesis using laboratory techniques. As a capstone assessment, students research an industrial or environmental problem and analyze the method used to address the problem.

### Evidence Acquisition and Evaluation

In both lecture and laboratory students review data sets, graphs and tables and relate to known chemical principles. Students also generate graphs and tables based on given data sets. Students verify chemical principles using formulae. In the laboratory, students perform lab investigations and experiments. Each lab session requires students to practice careful observations, record data, make calculations and evaluate data. Students complete a lab report which requires compilation and organization of their experimental data. While researching the capstone assessment, students evaluate and explain chemical methods used in industry or environmental practice.

### Reasoning/Conclusion

Students practice reasoning and drawing conclusions by addressing open-ended questions during class discussions or formal quizzes/exams. Students apply their knowledge of chemical principles to explain how a particular product exemplifies an acid-base reaction or develop a laboratory protocol using available items.

Students compile a lab report for each investigation or experiment. Students evaluate the data objectively to draw conclusions about a hypothesis. Students also evaluate data to identify experimental error and propose ways to minimize error in subsequent trials.



**Quantitative Reasoning. Communication/Representation of Quantitative Information; Analysis of Quantitative Arguments; and Application of Quantitative Models**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of quantitative reasoning.*

Students practice quantitative reasoning by examining texts and manipulating given data sets. The students complete quantitative exercises as part of class discussions, lab reports and formal exams. Class discussion is most often used as a formative method for evaluating initial student understanding while formal exams and laboratory reports are used for summative assessment.

**Communication/Representation of Quantitative Information and Analysis of Quantitative Arguments**

In both lecture and laboratory, students communicate information using written descriptions, chemical symbols, and diagrams. Students demonstrate understanding by showing step-wise progress in solving calculations or representing chemical reactions. Students examine data sets and determine if the set adheres to mathematical models. In the laboratory students compare their own data sets with peers to identify experimental error and propose a way to minimize error in subsequent trials.

**Application of Quantitative Models**

In both lecture and laboratory, student practice using quantitative models by using data sets to design representative tables, graphs or diagrams. Students explain how a information represented in a diagram adheres or deviates from a mathematical model. In the laboratory oral presentation, students explain how a mathematical model is incorporated into the researched problem.

**Personal & Social Responsibility. *Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global***

*In this box, provide a narrative that explains how the proposed course addresses **2** of the components of personal & social responsibility.*

#### Sustainability and Ethical Reasoning

Throughout the term, students relate chemistry with the human impact on the environment. Students learn how chemical means are used to minimize human impact and how environmental chemistry can impact living systems. Students learn the immediate and long-term impact of these interactions as well as the sustainability of the interactions. Students practice ethical reasoning during class discussion or discussion postings in response to assigned text/articles and videos. Students identify ethical concerns and explain ways to address the concerns within a chemistry context.

#### Collaboration Skills and Teamwork

In laboratory, students collaborate by working in small groups to complete experiments and laboratory exercises. The lab sessions provide opportunities for students to discuss and develop a single cohesive solution to open-ended questions that are based in a sustainability or socially responsible context.

#### **D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

[https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan\\_ENMURoswell.pdf](https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan_ENMURoswell.pdf)

This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).



**Date**

Mar 29 2021

## Upload Assessment

**Completed** - Mar 29 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

### [CHEM 1225 and 1225L ASSESSMENT](#)

**Filename:** CHEM\_1225\_and\_1225L\_ASSESSMENT.pdf **Size:** 237.4 kB

## Upload Rubric

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

# Application: 0000001453

James Scott - james.scott@nmt.edu  
NM General Education Curriculum

## Summary

**ID:** 0000001453

**Status:** Under Review

**Last submitted:** Mar 25 2021 03:18 PM (MDT)

# Application Form

Completed - Mar 25 2021

## Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

### Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

### Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

### Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.

- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

### Contact Information

Name	(No response)
Title	(No response)
Phone	(No response)
Email	(No response)

### Submitting Institution

Name of HEI	New Mexico Institute of Mining and Technology
Submitting Department	Physics

### Chief Academic Officer

Name	Dr. Steve Simpson
Email	<a href="mailto:steve.simpson@nmt.edu">steve.simpson@nmt.edu</a>

### Registrar

Name	James Scott
Email	<a href="mailto:james.scott@nmt.edu">james.scott@nmt.edu</a>

### Is this application for your entire system (ENMU, NMSU, & UNM)?

(No response)

## Institutional Course Information

Prefix	PHYS
Number	121
Title	Calculus-based Physics I
Number of credits	4

## Was this course previously part of the New Mexico General Education curriculum?

Yes

## Co-requisite Course

Prefix	PHYS
Number	121L
Title (if applicable)	Calculus-based Physics I Lab

## New Mexico Common Course Information

Prefix	PHYS
Number	1310
Name	Calculus-based Physics I

## A. Content Area and Essential Skills

## To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Science - Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning

## B. Learning Outcomes

### List all common course student learning outcomes for the course.

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

#### Student Learning Outcomes

Upon completion of this course, the student will be able to:

1. Describe the relationships among position, velocity, and acceleration as functions of time.
2. Use the equations of kinematics to describe motion under constant acceleration.
3. Analyze linear motion using Newton's laws, force, and linear momentum.
4. Analyze rotational motion using torque and angular momentum.
5. Analyze motion using work and energy.

Optional Topics may include (some schools include these in Physics I, others in Physics II):

1. Oscillations,
2. Waves,
3. Sound,
4. Thermodynamics

#### Optional Student Learning Outcomes

1. Describe and apply the fundamental properties of waves, oscillations, and periodic motion.
2. Describe and apply the laws of thermodynamics

## Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

None

---

### C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---



***Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.***

*In this box, provide a narrative that explains how the proposed course addresses all of the components of critical thinking.*

In the Phys 1310 lab, students carry out evidence acquisition as they make measurements of multiple aspects of dynamical systems, including masses, velocities, displacements, and so on. Evidence evaluation involves making calculations and computations with those measurements, understanding the accuracy and precision of the measurements, what sources of uncertainty in the measurements might be, and how those uncertainties propagate through the analysis. Students carry out reasoning and conclusion as they discuss and comment on how well their measurements and calculations compare to well-established physical principles, and what might be the impact of complications that are present in the real universe but not in the simple theoretical models.

In Phys 1310, students carry out problem setting as they interpret physical scenarios and specific situations, making connections to more abstract physical principles and choosing the appropriate models that should be applicable to these scenarios. They identify known and unknown quantities and strategies for obtaining the unknown quantities from the known ones. In the lecture setting, evidence acquisition, evidence evaluation, and reasoning also involve carrying out the appropriate mathematical operations (algebra, calculus, etc) necessary to obtain the desired quantities. Students carry out reasoning and conclusion as they perform basic consistency checks on their answers as a means of identifying errors.

Assessment in the lab courses is carried out on written lab reports which include the measured data, explanations of the analysis steps carried out and commentary on the conclusions of the experiment. Rubrics include the accuracy and precision of the measurements and the logical analysis steps, as well as the clarity of explanations. Assessment in the lecture portion of the class is carried out on homework problems, quizzes and examinations; rubrics involve the accuracy with which students have identified the relevant physical principles applied to a specific situation and the precision of the necessary mathematical manipulations.

**Quantitative Reasoning. Communication/Representation of Quantitative Information; Analysis of Quantitative Arguments; and Application of Quantitative Models**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of quantitative reasoning.*

In physics, critical thinking and quantitative reasoning are strongly overlapping skills because the kind of evidence we work with is quantitative. Thus, many of the skills described in the previous narrative apply here as well. Assessment comments from the previous narrative also apply here.

In Phys 1310 lab, students carry out the communication & representation of quantitative information by constructing data tables, charts and graphs with their measured and calculated quantities. These tables and charts form part of their written lab reports. Grading rubrics involve assessment of the clarity and completeness of information, specifying whether measurements have units, tables have headers and explanatory information, graphs have appropriate axis labels, and so on.

The application of quantitative models and the analysis of quantitative arguments are the very essence of all physics courses. In Phys 1310 lab the students investigate important principles by making measurements of dynamical systems and using those measurements in calculations that test whether quantitative models (e.g. the conservation of energy or angular momentum) apply. In Phys 1310 the students complete exercises and activities that require them to use quantitative models to connect things they want to know (or make predictions about) to things that they can measure

**Personal & Social Responsibility. *Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global***

*In this box, provide a narrative that explains how the proposed course addresses **2** of the components of personal & social responsibility.*

The aspects of personal and social responsibility that are most applicable in this physics course involve ethical reasoning and collaboration skills. Phys 1310 labs are done in teams of four, with students taking different roles such as recording data and setting up the equipment, to ensure that all students have opportunities to do all roles. Job rotation is appropriate in these collaborative projects where all participants have roughly equal skill levels and the point is to gain experience with all skills. Students negotiate amongst themselves as they translate written instructions into action, and the data are shared amongst the team members. Students are then allowed to work together on their analysis but are expected to write up their results independently.

All academic courses produce opportunities for ethical reasoning and situations in which students may be confronted with ethical dilemmas both large and small. Some ethical issues particularly related to the Phys 1310 lab involve the practice of doing science. Scientific work involves comparing models or hypotheses to data and/or the associated outcomes of computations based on those data. Scientists (and students in Phys 1310 labs) should accurately report the outcomes of their experiments even if they contradict what we had expected or hoped to find. This situation frequently happens in the Phys 1310 labs and students are encouraged not to brush these events under the rug but to propose reasonable hypotheses about why things didn't happen the way we expected.

---

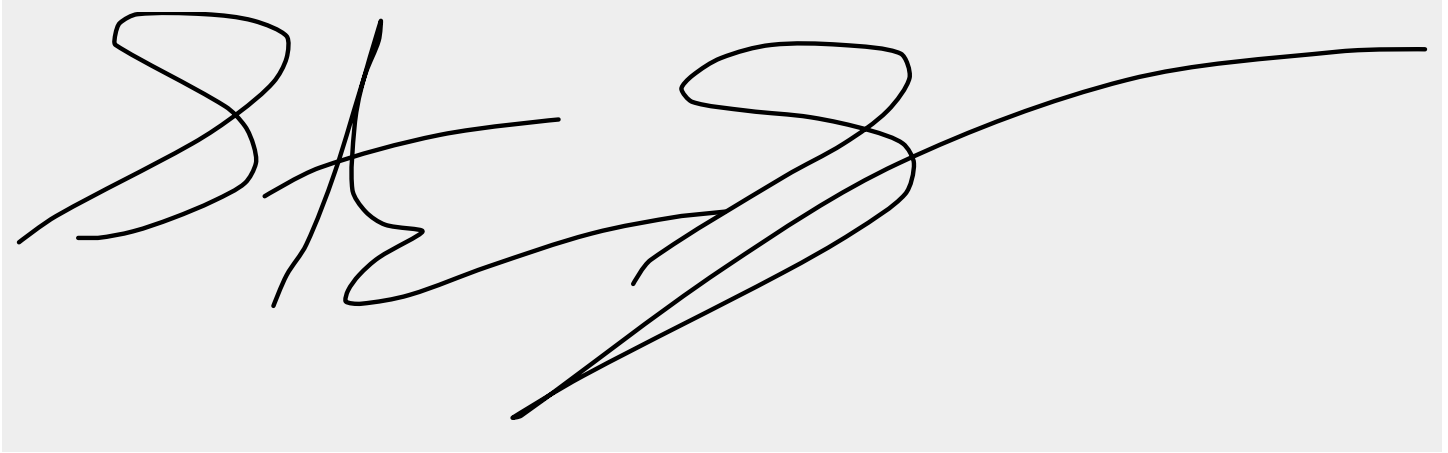
**D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

<https://www.nmt.edu/academicaffairs/assessment/gened.php>

---

This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).



**Date**

Mar 24 2021

## Upload Assessment

**Completed** - Mar 24 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

[Phys1310homework](#)

**Filename:** Phys1310homework.pdf **Size:** 398.6 kB

## Upload Rubric

**Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

# Application: 0000001462

Robert Moore - Robert.Moore@rm01.enmuros.cc.nm.us  
NM General Education Curriculum

### Summary

**ID:** 0000001462

**Status:** Under Review

**Last submitted:** Mar 25 2021 11:07 AM (MDT)

# Application Form

Completed - Mar 25 2021

## Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

### Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

### Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

### Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.

- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

### Contact Information

Name	Robert Moore
Title	Assistant VP
Phone	5756247001
Email	<a href="mailto:robert.moore@roswell.enmu.edu">robert.moore@roswell.enmu.edu</a>

### Submitting Institution

Name of HEI	ENMU-Roswell
Submitting Department	Science

### Chief Academic Officer

Name	Annemarie Oldfield
Email	<a href="mailto:annemarie.oldfield@roswell.enmu.edu">annemarie.oldfield@roswell.enmu.edu</a>

### Registrar

Name	Linda Neel
Email	<a href="mailto:linda.neel@roswell.enmu.edu">linda.neel@roswell.enmu.edu</a>

**Is this application for your entire system (ENMU, NMSU, & UNM)?**

No

**Institutional Course Information**

Prefix	BIOL
Number	2310
Title	Microbiology
Number of credits	3

**Was this course previously part of the New Mexico General Education curriculum?**

Yes

**Co-requisite Course**

Prefix	BIOL
Number	2310L
Title (if applicable)	Microbiology Lab

**New Mexico Common Course Information**

Prefix	BIOL
Number	2310
Name	Microbiology Lecture + Lab

**A. Content Area and Essential Skills**

## To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Science - Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning

## B. Learning Outcomes

### List all common course student learning outcomes for the course.

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

1. Describe and compare the structure and function of prokaryotic and eukaryotic cells.
2. Describe and compare the techniques used for staining of and microscopic observation of bacteria including morphology.
3. Describe the nutritional requirements for bacterial growth and the impact of environmental factors on bacterial growth (temperature, pH, oxygen, etc.).
4. Describe and compare the mechanisms of aerobic respiration, anaerobic respiration, and fermentative metabolism.
5. Describe the mechanism of bacterial growth by binary fission, and laboratory methods used for observing and measuring bacterial growth.
6. Describe the mechanisms of bacterial DNA replication, RNA transcription, and translation, and compare and contrast with eukaryotic cells.
7. Describe the structure and replication strategies of viruses.
8. Describe and contrast mechanisms of innate nonspecific immunity and adaptive specific immunity.
9. Describe immune hypersensitivity reactions, autoimmune diseases, and immunodeficiency diseases.
10. Differentiate between host microbe relationships, mechanisms of microbial pathogenesis, differentiate between communicable and non-communicable diseases and describe mechanisms of direct and indirect transmission of communicable diseases.



## Institution-specific Student Learning Outcomes

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

NA

---

### C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

---

**Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.**

*In this box, provide a narrative that explains how the proposed course addresses **all** of the components of critical thinking.*

Evidence Acquisition: The course's instruction addresses the NMHED Science Content area, and developing the essential skill Critical Thinking- Evidence acquisition as follows. Since critical thinking is centric in the sciences, students will receive weekly SLO(s)-focused foundational knowledge (a prerequisite for critical thinking and problem-solving.) Students will develop critical thinking skills through-out the course, by completing weekly modules of pedagogically varied activities. Students will develop the critical skills of acquiring and evaluating evidence in 2 modules: Pandemics and Media Bias, (maps to SLO #10). In the Pandemics and Media Bias module, students will gain an understanding of bias, will investigate how media bias contributes to spreading the Coronavirus, and will learn how to evaluate if a source is "reliable" or not. Students will complete Mastering Microbiology online activities as follows: view a BIAS Test video and evaluate sources for reliability. Developing the skill of evidence acquisition will be supported, by students, by using instructor-provided supplemental publications and links to scientific data-base resources. Students will be guided in the skill of acquiring additional evidence on coronavirus transmission and practical immunology (vaccine types). Students will be encouraged to use information from "reliable" science-based internet resources, i.e. CDC, biopharmaceutical vaccine manufacturers, and peer-reviewed clinical research. For example, students will be challenged to use critical thinking skills, and to evaluate whether an anti-vaccine social media post is based on opinion (non-reliable), or is based on science (reliable). Student learning will be assessed in a summative quiz with instructor-feedback. Student learning will be assessed a second time, in a comprehensive course final exam. Evidence of students' progressive learning, and mastery of SLOs and skills, is tracked throughout the course and assessed at course end.

**Quantitative Reasoning. Communication/Representation of Quantitative Information; Analysis of Quantitative Arguments; and Application of Quantitative Models**

*In this box, provide a narrative that explains how the proposed course addresses **all** of the components of quantitative reasoning.*

Application of Quantitative Models: The course's instruction addresses the NMHED Science Content area,

and developing the essential skill-set Quantitative Reasoning as follows. As quantitative reasoning is centric in microbiology, students will receive weekly SLO(s)-focused foundational knowledge (a prerequisite for quantitative reasoning and problem-solving.) Students will develop the essential Quantitative Reasoning skill-set throughout the course, by completing weekly modules of pedagogically varied activities. Students will develop the critical skills of Analysis of Quantitative Arguments and Application of Quantitative Models (maps to SLO #5) in 2 units: Physical and Chemical Control of Microbial Growth and Microbial Growth. The lecture content will be reinforced, through practical application of the models in the concurrent BIOL 2110L laboratory course. In the Physical and Chemical Control Unit, students will develop the skill, applying the model of bacterial thermal death, as follows. Students will complete a series of in-session activities, including directed readings, and 2 instructor lecture sessions. Students will develop the skill, by completing on-line Mastering Microbiology (Pearson) homework assignments, with Adaptive Follow-up, as needed. Student learning will be further developed in BIOL 2110L (concurrent course), by reviewing sample problems with answers, and by completing practice problems. Practice problems are essential to developing this critical skill. By practicing, the students will develop the skill, by applying their understanding of the model and by analyzing and interpreting graphical data plots. Student learning of this unit skill, will be assessed by their ability to determine quantitative values for thermal death time and thermal death point, for a model bacterium culture.

In the Microbial Growth Unit, students will develop the critical skill of applying quantitative models using the 4-phase-bacterial growth curve model, as follows. Students will complete directed readings, 2 instructor lecture sessions, and Mastering Microbiology (Pearson) homework assignments, with Adaptive Follow-up, as needed. As BIOL 2110 students are a diverse community of learners, a review of basic math skills, including scientific notation, exponents and logs is provided. Students will apply their understanding of exponential bacterial growth (by binary fission), to make quantitative determinations of generation time and number of generations (for a bacterial culture). Student skills will be further developed in BIOL 2110L (concurrent course), by reviewing sample problems with answers, and by completing practice problems. Practice problems are essential to developing this critical skill. By practicing, the students will develop the skill in the following ways. Students will analyze arithmetic and logarithmic plots, will complete data tables, will select correct data, and will use equations to calculate generation time and number of generations. With attentive student review of completed problems, and corrective feedback, students will identify (and correct) a reasoning “misconception”, and a math error. Student learning for this unit, will be assessed by their ability to determine correct quantitative values (and units) for generation time and number of generations in a bacterial culture. Student learning for both units, will be assessed in an open book-open note-review quiz (OBRQ), and in a cumulative lab final exam. Evidence of students’ progressive learning, and demonstrated mastery of SLOs, CLOs, and essential skills is tracked throughout the Mastering Microbiology course and assessed at the end of the

course.

**Personal & Social Responsibility. *Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global***

*In this box, provide a narrative that explains how the proposed course addresses 2 of the components of personal & social responsibility.*

Ethical Reasoning: The course's instruction addresses the NMHED Science Content area, and developing the essential skill-set Personal & Social Responsibility-Ethical Reasoning (maps to SLO # 10) as follows. Since ethical application of science is centric in the sciences, students will receive weekly SLO(s)-focused foundational knowledge (a prerequisite for developing intercultural reasoning, civic engagement and ethical reasoning skills. Students will develop these skills throughout the course, by increasing their knowledge and understanding of how microbiology intersects their daily lives, and their local and global communities. Students will develop the critical skill Ethical Reasoning, in the Practical Immunology and Epidemiology units, by completing pedagogically varied activities, as follows. The activities will include, 4 instructor lecture sessions, introducing topics including: the role of government in US health equity, medical services and vaccination programs; a statistical analysis of herd immunity; and the epidemiology of COVID-19. Students will develop the skill of ethical reasoning, by completing Mastering Microbiology (Pearson) assignments, including: directed reading homework questions and coaching videos on US health equity, public health policies and c pandemic management) with Adaptive follow-up. Homework hints, and instant scoring with corrective feedback, will further assist students in developing the skill. Student will be encouraged to apply their ethical reasoning, by evaluating the question, "Are US medical and health services available for all, regardless of socioeconomic, geographical and cultural status.?" Students will collaborate, and share their comments and reasoning, in a discussion board forum. Student learning will be assessed in the graded discussion board forum, in an open-book-open note quiz (OBRQ), and in a cumulative course final exam.

## D. Assessment Plan (Must be on file with HED by August 1, 2019)

Link to Institution's General Education Assessment Plan

[https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan\\_ENMURoswell.pdf](https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan_ENMURoswell.pdf)

This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).

A handwritten signature in black ink, appearing to read "RM / A MD", is displayed on a light gray background.

Date

Mar 24 2021

## Upload Assessment

Completed - Mar 24 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

**B**

Filename: B\_Assessment\_Influenza\_Pandemic\_C\_vPhVAHM.pdf Size: 369.4 kB

## Upload Rubric

Incomplete

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.

**Application: 0000001468**

## Summary

**ID:** 0000001468

**Status:** Under Review

**Last submitted:** Mar 24 2021 04:09 PM (MDT)

## Application Form

**Completed** - Mar 24 2021

## Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills. New Mexico's new General Education models must be adopted by all of New Mexico's public higher education institutions by **August 1, 2019**.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of six content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Science: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Creative and Fine Arts: Communication, Critical Thinking, Personal & Social Responsibility
7. Other: 3 Essential Skills chosen by the institution

Faculty teaching courses within any given content area must weave the three related essential skills throughout their course while also addressing content knowledge and skills.

## Deadline for Next Curriculum Committee Meeting

Applications to add courses to the new General Education Curriculum must be received by **May 17, 2019** to be heard at the **June 13-14, 2019** [NMCAC Meeting](#).

**\*\*Applications approved at the April meeting will be archived on May 17, 2019.\*\***

## Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

### Contact Information

Name	Robert Moore
Title	Assistant VP
Phone	5756247001
Email	<a href="mailto:robert.moore@roswell.enmu.edu">robert.moore@roswell.enmu.edu</a>

### Submitting Institution

Name of HEI	ENMU-Roswell
Submitting Department	Humanities

### Chief Academic Officer

Name	Annemarie Oldfield
Email	<a href="mailto:annemarie.oldfield@roswell.enmu.edu">annemarie.oldfield@roswell.enmu.edu</a>

## Registrar

Name	Linda Neel
Email	<a href="mailto:linda.neel@roswell.enmu.edu">linda.neel@roswell.enmu.edu</a>

### Is this application for your entire system (ENMU, NMSU, & UNM)?

No

## Institutional Course Information

Prefix	ARTH
Number	1110
Title	Art Appreciation
Number of credits	3

### Was this course previously part of the New Mexico General Education curriculum?

Yes

## Co-requisite Course

Prefix	(No response)
Number	(No response)
Title (if applicable)	(No response)



New Mexico Common Course Information

Prefix	ARTH
Number	1110
Name	Art Appreciation

A. Content Area and Essential Skills

To which area should this course be added?

Indicate "Other" if the course is not associated with one of the six NM General Education areas.

Creative & Fine Arts - Communication, Critical Thinking, Personal & Social Responsibility

B. Learning Outcomes

**List all common course student learning outcomes for the course.**

Common Course Student Learning Outcomes (find Common Course SLOs at:  
<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

1. Trace the development of diverse art and architecture styles.
2. Compare and contrast the major art and architectural styles.
3. Use art terms and explain basic art concepts.
4. Analyze the visual elements and design principles in masterworks of art.
5. Describe masterpieces objectively, with emphasis on contemporary works.
6. Gain general knowledge of the history of artistic production.
7. Understand how both art and the study of art relates to other disciplines, such as philosophy, history, archeology, theater, and music.
8. Distinguish the elements and principles of design and explain how they are being used in a given piece of art.

---

**Institution-specific Student Learning Outcomes**

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor.

NA

## C. Narrative

In the boxes provided, write a short (~300 words) narrative explaining how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

*Be sure to address the component skills listed next to each essential skills. The number of component skills that must be addressed by your narrative is listed.*

**Communication. Genre and Medium Awareness, Application and Versatility; Strategies for Understanding and Evaluating Messages; and Evaluation and Production of Arguments.**

*In this box, provide a narrative that explains how the proposed course addresses all of the components of communication.*

[\*Genre and Medium Awareness:] The act of observing, interacting, and evaluating art is an exercise in communication: reading the art / artist, examining the “messages” or meaning of the art / artist, and sharing those messages to a larger (or personal) audience make up the bulk of assignments and activities. Students are first introduced to the major genres and movements in art through vocabulary exercises, faculty lecture, and a series of readings that include pictorial representations of art works ranging from architecture to clay, acrylics, and weaving. As students learn achieve versatility within the genres, one assignment asks students to imagine a famous painting (the Mona Lisa) as a different form of art (a marble statue? A building?). Individual journals, quizzes, and discussion all allow students to reflect on, experience, and appreciate the different mediums and genres of art and the objects that arise from these mediums. We trace the development of diverse art and architecture styles, for example. Diversity in art is the vast array of art available and the process artists find and reveal in their style. By examining the artists, the students understand the “voice” of the artist and the art precisely. The student evaluates the artist's style through a series of questions they answer in an essay: are there elements of design that tie pieces together? What themes show up in the artist's production most often? What kind of subjects are you drawn to? Many or a few? What kind of art do you enjoy at the moment? Does this art stand out against the work of other artists?

[Strategies for Understanding and Evaluating Messages:] Analysis of art requires extreme flexibility of imagination and the ability to connect observations to experience; students have multiple opportunities

to search for “meaning” in discussions, reflection essays, and final exams. Exercises in class also suggest a pattern for how to look for messages. Students write their own response to an artwork (often a Dali print) and then read a small historical piece about Surrealism, a review from a respected critic about the piece, and a small essay on the artist. Finally, they re-write their analysis now that they have other tools to evaluate the artwork, learning that their observation is just one way to evaluate and understand. No artist or creator is entirely original. Inspiration for their styles comes from the world around them and what they choose to expose themselves to. An artist’s communication style doesn’t develop out of thin air. As we mature our ability to talk about “style,” we simultaneously mature our ability to compare and contrast ideas, techniques, mediums, and ways of expressing from across genres and artists. We emphasize the process of “broadening and deepening” our understanding in numerous exercises from artifact examination discussions in class to our final essays dedicated to a student’s selected artist.

[\*Evaluation and Production of Arguments:] Discussions compel students to respond to photographs or lithographs or reproduction of artworks, primary texts, other students' positions, as well as professional critiques/reviews; the discussions and written responses model techniques of textual and cultural evaluation. For many of the statements students make (in discussions, for example), we emphasize currency, relevance, authority, accuracy, and purpose. Students create their credible arguments; many assignments make conscious the evaluation techniques necessary to assure thoughtful and hearty presentation. Students arrive at defensible, relevant, and interesting conclusions based on sound and creative premises in their essays, presentations, and short assignments. They are guided to ask questions, explore, surmise, posit opinions, and support their ideas through different deductive reasoning and Socratic teaching strategies. Repeated exposure to primary and secondary sources (artworks and critiques of artwork) allows students to engage examples of excellent and poor reasoning, logical fallacies, misguided conclusions, affirming organization, and general patterns of argument valuable for college-level academic discourse.

---

***Critical Thinking. Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion.***

*In this box, provide a narrative that explains how the proposed course addresses **all** of the components of critical thinking.*

[\*Problem Setting:] During the semester, students respond to multiple kinds of art from early architecture and sculpture to oil paintings and watercolors; they share their reactions and experiences

through reflective documents, response essays, quizzes, exams, and an analytical research paper; they participate in discussions nearly every class where they must determine and tackle a particular problem or issue a work of art or artist presents; they offer presentations, work in small groups to explore and present discoveries, and share their reactions informally with classmates.

[Evidence Acquisition:] Students access and consider the evidence available through their assigned course texts, the library's general collection, and the University's numerous databases (e.g., EBSCO, Academic Search Complete, ProQuest, JSTOR, etc.), and faculty-provided material to support their observations, analyses, and arguments forwarded in-class discussion and on assignments. Several assignments, like their exams, require them to share evidence they have accumulated; other assignments, like the reflective responses, are designed to enhance students' research and discovery skills and reward effective use of outside sources. The first essential skill the course works through is developing a vocabulary of artistic terms, genres, and modes and then being able to describe art works using those terms. It is crucial to understand and put artistic terminology into practice; students' sophistication and ability to analyze becomes more sophisticated when they can correctly discern batik from collage, for example. To "interpret" art, students must first acquire a broad vocabulary both of language, art works, and artists. We use these terms frequently to help the student retain them and reinforce their practice when discussing or writing about art works assigned in class.

[\*Evidence Evaluation:] Discussions compel students to respond to digitally reproduced art works, primary texts, other students' positions, as well as professional critiques/reviews; the discussions and written responses model techniques of textual and cultural evaluation. For many of the statements students make (in discussions, for example), we emphasize currency, relevance, authority, accuracy, and purpose. Students create their credible arguments; many assignments make conscious the evaluation techniques necessary to assure thoughtful and hearty presentation (focused/evaluated annotation and response to individual works is an example).

[\*Reasoning/Conclusion(s):] Students arrive at defensible, relevant, and interesting conclusions based on sound and creative premises in their essays, presentations, and short assignments. They are guided to ask questions, explore, surmise, posit opinions, and support their opinions through different deductive reasoning and Socratic teaching strategies. To truly appreciate art, a student needs to exercise a fluid and steady analytic approach where they break apart individual components (texture, brush strokes, artist biography, history, etc.) and work toward larger declarations. To find the "meaning" in art, we work in small "truths" and hope to hit on larger truths. The process is most easily identifiable in the short responses, discussions, and the exams where students are asked to engage a work by identifying each part and then explaining how the part works toward a "whole" effect. Their conclusions are based on

their struggling through the process. Repeated exposure to primary and secondary sources (art works and critiques art works, historical documents) allows students to engage examples of good and poor reasoning, logical fallacies, misguided conclusions, affirming organization, and general patterns valuable for college-level academic discourse.

**Personal & Social Responsibility. *Intercultural reasoning and intercultural competence; Sustainability and the natural and human worlds; Ethical reasoning; Collaboration skills, teamwork and value systems; and Civic discourse, civic knowledge and engagement - local and global***

*In this box, provide a narrative that explains how the proposed course addresses 2 of the components of personal & social responsibility.*

[\*Intercultural Reasoning and Intercultural Competence:] During the semesters, through the observation and encounter of artworks, readings, research, and discussions, students immerse themselves in a variety of socio-cultural issues in the art world across time periods and contemporary culture; examine how past socio-cultural artwork (and movements) informs current artists, and learn to appreciate and approach differing artistic styles, attitudes, and artifacts across generations. We can connect with people from other cultures who don't even speak our language through art, sometimes called the universal language. By examining, comparing, contrasting, and researching pieces of art from distinctly different cultures, the students learn to identify how the art "speaks" to multiple audiences in the common language of representation. Students deploy the seven basic art concepts and art terms within their observations, thus giving credence to their opinions through scholarship. Student progress is measured in part on their ability to recognize differing modes, practices, and techniques of art and reflect their understanding in essays, projects, and presentations; many of the assignments ask them to engage, react to, and otherwise consider issues most relevant to the social role of art, including public v. private, commercial v. high art, and the commerce v. aesthetic of art; the issues are both topics for discussion, essays, and exams.

[\*Civic Knowledge and Engagement—Local and Global:] Across the semester, students tackle contemporary and past artworks and investigate them; most of the works are public or shared on a local/global level; students learn about how and where the art is stored and viewed and, consequently, gain knowledge about the civic nature of art. Students also explore the local and global contexts surrounding the creation, distribution, and context of their artifacts—drawing connections across diverse

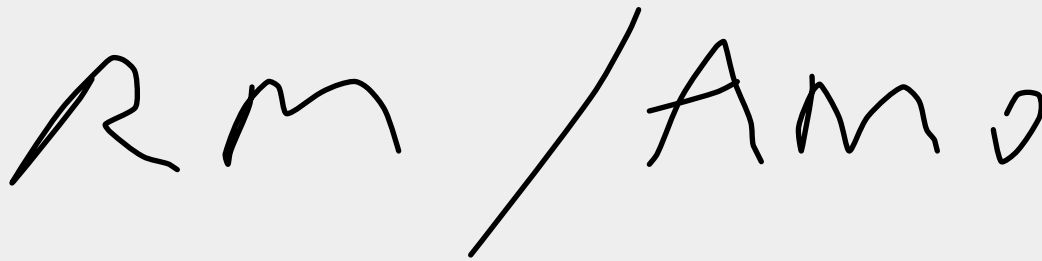
points of interest from representations of "beauty" to depictions of violence, from religious iconography to pop culture (one project, for example, asks students to compare two artworks and articulate the change/difference in attitude about nature and the environment the paintings represent). Students strive to contextualize academic discourses with global movements, structures, and attitudes. Nearly every artwork embraces the conversation of civic responsibility either as a critique, a model, or an investigation of communities in action; the paintings, sculptures, architecture, etc., provide the leaping-off point for conversations about how the individual conflicts with, correspondent to, or estranged from society; their essays allow them to reflect and sharpen their understanding.

#### **D. Assessment Plan (Must be on file with HED by August 1, 2019)**

Link to Institution's General Education Assessment Plan

[https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan\\_ENMURoswell.pdf](https://www.roswell.enmu.edu/wp-content/uploads/delightful-downloads/2019/09/2019-General-Education-Assessment-Plan_ENMURoswell.pdf)

**This course has been reviewed by the institution's Chief Academic Officer and meets institutional standards for general education (signature of CAO below).**

A handwritten signature in black ink, consisting of the letters 'Rm' followed by a diagonal slash and the letters 'Amo'.

**Date**

Mar 24 2021

## **Upload Assessment**

**Completed** - Mar 24 2021

The assessment should illustrate how at least one of the essential skills is assessed within the context of the course.

## **ARTH 1110 Assignment**

**Filename:** ARTH\_1110\_Assignment.pdf **Size:** 253.8 kB

### **Upload Rubric**

#### **Incomplete**

The optional rubric should illustrate how at least one of the essential skills is assessed within the context of the course.



## **Term Paper: Reading Analysis Essay**

### **Instructions and Logistics**

This paper assignment is due by Canvas submission at 5:00 pm on **Mon., Nov. 9, 2020**.

Optional drafts are due Canvas submission by 8:40 a.m. on **Mon., Oct. 19, 2020**. See below for the kind of feedback you can expect. Feedback will be quite limited.

Submit your final term paper as a .doc, .docx or .pdf file format in Canvas:

1. To avoid losing unsaved text within Canvas, compose your paper in a text editor and then export/save to .docx or .pdf file format.
2. If you have trouble uploading or downloading files, try another browser (Firefox or Chrome). Curtis Warren wants you to know that clearing your browser cache and cookies often solves problems (like disappearance of the “submit” button). He usually responds to questions within 24 hrs. If you still have trouble, as a last resort please email the file to me as an e-mail attachment in Canvas. Please note that emailed copies have a tendency to get misplaced.
3. If you will submit a late paper, please submit your paper on-line to the same assignment in the Assignments tool. Points will be taken off based on Canvas’s record of the submission time. Late papers lose 2 points per day (out of 20). If you submit late the evening of the due date, you will lose 1 point.

If you would like to submit a draft for me (or a Grader) to briefly evaluate, please submit the draft in a similar way using the optional “paper draft” assignment in Canvas Optional Paper 1 draft. Drafts are due by 8:40 am on **Mon. Oct. 19**.

I (and/or a Grader) will provide limited feedback. We will not be reading to evaluate your arguments to determine whether or not they are correct. This takes a careful reading of all of the articles (updated in each edition of Annual Editions) as well as thinking carefully about all of the relevant arguments that students could come up with. We want to give you quick feedback to let you know whether or not you are on the right track.

Feedback will be as follows:

"On Track" - This means that you have followed the instructions correctly. You have a reasonably structured paper. You are making connections to the article and working to tie the ideas back to the course content. It does not mean that your arguments are error-free or even particularly good. It just means that you are doing the assignment correctly. Being told that you are "On Track" does NOT mean that you are going to earn an A on the paper.

"Too much summarizing" - This means that you are treating the assignment too much like a book report. You are summarizing the article and not bringing in enough course content. We can't tell that

you understand the course material and can make connections in another context. You have made clear how well you understand the article, but that is not what we are interested in.

"Reduce quotes" - Quotes are rarely appropriate in this paper. If you have a lot of them, it is probably a mistake.

"Trim Anecdotes" - Though it is useful to introduce a personal story to emphasize a point and/or give an example, too much emphasis on a personal story will detract from the space you have for analysis. If you put in a personal anecdote, it should usually be no more than 2-3 sentences and will be more effective in the context of this paper if you analyze it in the context of the course material. Also, remember that an anecdote is illustrative, it cannot prove a point. It can only illustrate an idea.

"Add psychological content" - Sometimes students write beautifully written, well-thought out papers that would be great submissions for a writing class, but are not appropriate for this assignment because they do not analyze the material in terms of psychological content from the class. Ideas about how a concept fits into a wider political, social or historical context are really interesting to read, but do not follow this assignment.

"Awkward writing" - Some students believe that scientific writing needs to be complicated. It does not. Shorter sentences are generally better than longer ones. If you use scientific terms, make sure you know how to use them properly. Be clear. There is no need to say "utilize", where "use" will suffice. Be succinct. Show us what you know about the material. You probably know a lot. Have a friend who is not taking the class read your paper and have them show you where they can't follow what you are saying. Those are the places you need to work on.

The grader may give you more extensive feedback if s/he has extra time, but our goal is to give you quick, simple feedback that will help you to understand the best way to approach this paper. Office hours are a possibility for meeting to discuss paper ideas in person.

Additional resources for assignment will include a grading [rubric](#), duplicated in Canvas outcomes.

## Psyc1110-Introduction to Psychology

### Reading Analysis Paper 1

This "Reading Analysis" essay will be an analytical assessment of one of the articles uploaded to Canvas Files, or any article taken from *Annual Editions: Psychology*, the 49<sup>th</sup> Edition, from McGraw Hill publishers, which will be available for optional purchase from the bookstore. The reprint articles are available on Canvas in the Files tool, providing that you agree not to break copyright law by disseminating them or using them beyond the fair use within this course. The article source for your essay should be fully cited (i.e. from the McGraw edition, if that's where you find it).

[READ THESE INSTRUCTIONS CAREFULLY.](#)

## Choose a reading

First, choose one of the supplementary articles, either directly from *Annual Editions* or from the article files listed below. Next identify concepts that play important roles in the issue, and that help you to analyze the reading, by shaping insights or provoking critical thought.

### The following readings are available on Canvas in the course “Files”:

Aronson, E. and Tavis, C. (2020, July 12). The role of cognitive dissonance in the pandemic. *Atlantic*. Retrieved from: <https://www.theatlantic.com/ideas/archive/2020/07/role-cognitive-dissonance-pandemic/614074/>

Carey, B. (2019, April 13). Doctors use electric implant to aid brain-damaged woman. Retrieved from: <https://nyti.ms/2D6qHxt>

Cobb, M. (2020, February 27). Why your brain is not a computer. *Guardian*. Retrieved from: <https://www.theguardian.com/science/2020/feb/27/why-your-brain-is-not-a-computer-neuroscience-neural-networks-consciousness>

Drake, N. (2018, September 13). New type of night vision found. *National Geographic*. Retrieved from: <https://www.nationalgeographic.com/science/2018/09/news-night-vision-mice-motion-eyes-neuron-brains/>

Gans, J. (2020, February 6). An economist’s guide to potty training. *MIT Press Reader*. Retrieved from: <https://thereader.mitpress.mit.edu/an-economists-guide-to-potty-training/>

Goldstein, J. (2019, January 29). Are police lineups always fair? See for yourself. p. A17. *New York Times*. Retrieved from: <https://nyti.ms/2SbJMXM>

Haidt, J., & Iyer, R. (2016, November 10). How to get beyond our tribal politics. *Wall Street Journal*. Retrieved from <https://www.wsj.com/articles/how-to-get-beyond-our-tribal-politics-1478271810>

Rosman, K. (2020, April 3). For those with O.C.D., a threat that is both heightened and familiar. *New York Times*. Retrieved from: <https://nyti.ms/2URhLE0>

Thurman, J. (2018, September 3). The mystery of people who speak dozens of languages. *New Yorker*, p. 48. Retrieved from: <https://www.newyorker.com/magazine/2018/09/03/the-mystery-of-people-who-speak-dozens-of-languages>

Ventiera, S. (2020, May 1). Consider virtual dog training for your pandemic puppy. *New York Times*, p. D2. Retrieved from: <https://nyti.ms/2zOgerF>

Walker, J., Risen, J. L., Gilovich, T., & Thaler, R. (2018, February 3). Force overtime? Or go for the win? *New York Times*, p. SR6.

Wartik, N. (2020, May 21). How to tell if it’s more than just a bad mood. *New York Times*. Retrieved August 12, 2020, from <https://www.nytimes.com/2020/05/21/well/coronavirus-depression.html>

## **Develop a reading plan**

You are assigned to apply 2-3 concepts from the class to your chosen article. Show us your understanding of psychological theory by applying it in a new context. When writing your essay, a) describe the central theories or phenomena you will cover, and b) fully explain how theory and psychological principles apply. Address yourself at the level you would use to explain to a peer student reader. In other words, assume that it is not immediately obvious how theory pertains, so that you must lay out the relevance in detail. The goal is not only to demonstrate knowledge to us, but also to expand your own understanding of one or more theories by considering more carefully how they apply to observed phenomena. (This approach will be useful when studying for exams in this class, because many exam questions ask you to generalize theory to a new context.)

In general, your essay must go beyond the content of the article by incorporating material from class. Ask yourself whether someone who has never taken a Psychology class could write the kind of paper you are producing; if so, you need to bring in course material in a more meaningful way.

Below are some questions you might consider. Use them as a guide rather than a template. Other questions may be more relevant to your purposes. Do not try to speak to all of these questions comprehensively in one paper. Ideally your paper will present and discuss one to three ideas that are well supported by evidence. If you are trying to present more than three ideas, you probably haven't relied on enough psychological research evidence from the lectures or textbook. Try to combine ideas into a thesis statement, but if they are complex or tangential set your sights on writing an introductory overview paragraph that gives the reader a path through the reasoning your paper will discuss.

## **Guide for taking notes and planning your paper**

### **1) Identify connections between the article and lecture or textbook readings.**

Connection 1:

- Element from article:
- Related concept from lecture/textbook:

Connection 2:

- Element from article:
- Related concept from lecture/textbook:

Etc.

### **2) For each connection (or the ones you find most compelling), explain both parts:**

- Fully describe the relevant psychological concept.
- Explain how it applies to the element from the article. This application is the analysis. Don't assume that basic applications go without saying.

### **3) Use your notes to craft a story**

In your paper, you likely won't have room to include all the connections you found. Look for related ideas. Is there an interesting, coherent narrative you can support? Or are there related points you can play off one another when discussing? Your aim should be to share an insight you find interesting, and to support your points clearly with evidence from the class. The most important features of the essay are:

- demonstrating that you understand the pertinent psychological concepts
- using material from class and the textbook to support your ideas about the article material

### **Matters of style and scholarship**

#### **1) Take care if incorporating personal experiences.**

It may be effective to use a personal anecdote to add interest to your paper, but make sure you plainly show how the psychological theory either applies or does not in your particular case. Keep in mind that your personal experience cannot serve as evidence alone, but can be illustrative or memorable motivation for the essay.

#### **2) Critique is worthwhile, but target it at application of the psychological concepts.**

a) Most of these articles do not present original experimental results. To do so would be outside the purpose of popular science writing, and therefore not appropriate. The basic research findings were published elsewhere. Thus, you lack enough information about the research methodology or approach to critique how the studies were done. Assume that sample sizes were appropriate and that the experimenters controlled for predominant confounding factors like economic status, race, age, education level, etc. where relevant.

b) Feel free to take issue with the tone the author uses, or the writing style, but expressing this is unlikely to serve your own purposes for writing. Reasonable critiques of the science reporting will add little to demonstrate your understanding of the psychology, and are not germane to this assignment.

#### **3) Quote only where essential, and cite scholarly sources as appropriate.**

Rarely does a quote serve well in this type of essay. Explain concepts in your own words and then cite your textbook, the lecture (or records of it), or the article. Place the citation at the bottom of the cover page, or at the end within your three pages of essay text. You do not need a reference page unless you bring in additional sources, which is beyond the scope of the assignment. The format of your citations could be any professional standard (APA, MLA, etc. are all fine).

## Writing tips

1. Include an introduction and conclusion, but make them brief.
2. Be clear and organized.
3. Proofread. First-person pronouns ARE perfectly acceptable where called for.
4. Do NOT waste space summarizing the article you read. Refer to just those parts of the article that serve the objectives of your discussion.
5. ANALYZE! Connect your ideas directly to topics covered in lecture and the textbook. Describe the related theory or idea and how it applies (or contradicts).
6. Do back up your statements using evidence from the course (whether citing a passage in the textbook or from lecture). Cite relevant page numbers (Breedlove et al., p. 547) or slides including date and topic.
7. DO display that you understand the psychology.
8. DO use psychological vocabulary appropriately. Misuse of scientific terms demonstrates a lack of understanding.
9. DO feel free to use personal experience when compelling, but guard against letting it hi-jack the paper. Your focus is an analysis within the field of psychology. This far from a personal response paper.

## Format

You **MUST** adhere to these formatting guidelines or **you will lose points**.

Responses must be typed, **double-spaced**, with 1" margins all around.

1. Use Times New Roman font, 12 point.
2. Include a cover sheet with a title, your name, and the citation of the article. Our intention is to use speed grading software to grade the text with student names anonymized. Put your name on **ONLY** the cover sheet, and not on subsequent pages.
3. If you follow the strong suggestion to limit your citations to the article, lecture, and the textbook, you should not need to include a separate reference page. If you do use additional sources, please include a reference page. In this case, that reference page does NOT count toward the 3-page limit.
4. DO NOT go over the 3-page limit—neither by a line, nor by a word. (The cover page **does not count** toward the three pages of text, nor does a separate reference page if used--see above.)

## Grading

We will grade your papers on a 20-point scale. Writing style, format, conceptual understanding of psychology, and ability to apply concepts insightfully will all contribute towards your grade. A copy of the grading rubric will be made available on Canvas in the same Files folder as the assignment instruction and the topic-articles folder.

## **Submitting papers**

The final paper is due to be submitted online by 5 pm on the due date. Leave yourself enough time to submit. DO NOT email your paper unless there are special circumstances that prevent you from submission on Canvas in our course Assignments section. All late submissions should be to the same Term Paper Assignment which will remain open for some time after the due date. Penalties for lateness are as follows:

-1 point: Submitted late on the due date

-2 points: For each day late beyond the due date

Also, there will be at least a 1-point penalty for anything over the 3 page limit (not including cover page and reference page). Do not try to get around the page limit by reducing the margins, the spacing or the font size (see “Format” above).

## **How can I get help?**

If you are concerned about the style, structure, or approach for this paper, I recommend that you submit the optional draft by the earlier deadline to find out whether or not you are using an appropriate approach. If you would like to talk about the ideas for your paper, we recommend communicating with the Writing Center about the format, and/or your peers about the grammar. My office hours are another possibility, but these may fill up soon before the deadline and I will not accept late drafts.

## POLS 2210 Student Assessment

**Position Presentation:** To ensure we cover relevant topics outside the text as well as have a lively and informative discussion on an array of vital issues pertaining to the State of New Mexico, students will be required to *orally* summarize either a historical or contemporary topic/issue in relation to New Mexico's people, political culture, and institutions, through a *PowerPoint* presentation in which an outline of the information is provided and the respective position is stated. The presentation will be jointly created and presented by a pair of students with each pair choosing a separate topic on a first-come-first-serve basis from a list of topics provided by the instructor. The pair of students are thus required to meet with the instructor during office hours to select a topic as well as to receive guidance relating to researching the chosen issue. The presentation will be worth 10% (50 points) of the total grade. *It is mandatory for all students to be present in-class on the scheduled dates for the position presentations. Failure to do so will result in a deduction of 5 points per class period. Failure to present an issue will result in no points being awarded.*

The following structure is mandated in relation to the position presentation:

- Each topic will be produced by a pair of students (except if the class contains odd number of students).
- After selecting the topic, base the presentation on three major sub-issues. Choosing of the sub-issues is the students' prerogative. PowerPoint presentation of the topic at-hand is mandatory for all students.
- After which present the topic utilizing a point - counter-point argumentative presentation process. Where in, the first student states his/her first point - immediately followed by the second students' response to that point. For the second point, alternate it with the second student stating her/his point first.
- Students can carry supplementary resources, such as a note card or a sheet of paper to elaborate their respective points.
- The presentation will be given a total of 8-10 minutes per pair.
- Thereafter, the instructor will on a random basis select at least one student from the classroom to either pose a question to the presenter(s) or pass a comment on the presentation.
- Subsequently, the discussion on the presenters' topic will be opened up to the classroom for further deliberation.
- All outside sources utilized must be cited using MLA formatting. For information pertaining to MLA formatting, please refer to the following link from *Purdue University*: [https://owl.purdue.edu/owl/research\\_and\\_citation/mla\\_style/mla\\_formatting\\_and\\_style\\_guide/mla\\_formatting\\_and\\_style\\_guide.html](https://owl.purdue.edu/owl/research_and_citation/mla_style/mla_formatting_and_style_guide/mla_formatting_and_style_guide.html)
- Each student will be graded on an individual basis. As per the syllabus, *"It is mandatory for all students to be present in-class on the scheduled dates for the position presentations. Failure to do so will result in a deduction of 5 points per class period. Failure to present an issue will result in no points being awarded."*



# Plant Transpiration

## Plant Transpiration

### Pre-Lab Questions

1. When did vascular plants evolve? How was this timeline uncovered?
2. How does gas exchange associated with photosynthesis affect transpiration rates?
3. The introductory material described the role cohesion plays in water transport in plants.  
Describe here how adhesion is important for transpiration in plants.
4. Describe three adaptations that make it possible for desert plants to survive with very little water.
5. If a mutation caused the stomata of a plant to stay permanently open, how would the rate of transpiration and photosynthesis would be affected? Would this be a beneficial trait? Explain.

# Plant Transpiration

## Experiment 1: Structure and Location of Phloem and Xylem in Roots and Stems

### *Post-Lab Questions*

1. Provide a detailed description of the structural differences you observed between phloem and xylem in the *Ranulucus* root and *Tilia* stem slide images.
2. Describe where phloem and xylem are located within roots and stems based on the slide images.
3. How do the roles of xylem and phloem differ?
4. When an old tree is cut down, we can determine the age of the tree by counting tree rings. What are tree rings? Did you observe tree rings in any of the slide images?

# Plant Transpiration

## Experiment 2: Transpiration

### Data Tables

**Table 1: Transpiration Data**

Test Tube	Initial Water Volume (mL)	Final Water Volume (mL)	Change in Water Volume (mL)
Test Tube #1			
Test Tube #2			

### Post-Lab Questions

1. Did the water volume in the test tubes increase or decrease during the two-hour period?  
If there was a difference in either of the test tubes, what caused this change? Did the results support your hypothesis?
2. Did this amount vary between the test tube with the fan blowing on it and the test tube without the fan? If there was a difference, what caused this change?
3. What process caused the sodium polyacrylate-filled dialysis tubing to become filled with water? How does this compare to transpiration in plants?
4. Explain the role of water potential in transpiration.
5. How does humidity in the air affect transpiration in plants?
6. Research and describe one other method used to measure transpiration in plants. Include references to information sources used.

# Plant Transpiration

## Experiment 3: Measuring Transpiration Using a Potometer

### Data Tables

**Table 2: Potometer Data**

Volume (mL)	Room Temperature	Wind	Third Factor
Initial			
20 minutes			
40 minutes			
60 minutes			
Change in Volume (Initial Volume – 60 Minute Volume)			

### Post-Lab Questions

1. Determine the most appropriate method to graph the information recorded in Table 2 and provide the graph(s) in the space below. Include a brief statement describing why you selected the graphing method you did. Be sure to clearly indicate the x and y axes, the units used, and the graph title(s).
2. Write a detailed conclusion based on your results. Which environment produced the most water loss? Which environment produced the least? Do the results support your hypotheses? Explain.
3. Use your data to calculate the rate of water loss per minute for each of the potometer environments.
4. Based on your results, which of the tested environments do you think would provide the best environment for a plant in nature? Why?

## Plant Transpiration

5. Identify two possible sources of error in this procedure. How could these sources of error be removed or reduced?

## Sample Assessment Questions

Could be given as a discussion prompt, homework question or on an exam

1. Describe any differences between velocity and acceleration, and describe the changes of both, if any, to a ball tossed straight upward.
2. You drive 50 meters in 3 seconds. You stop for 2 seconds. You drive another 50 meters in the same direction in 10 seconds. You immediately turn around and drive back to your starting point in 5 seconds.
  - a. What is the total distance you drive?
  - b. What is your total displacement at the end of your drive?
  - c. Sketch a plot of position vs. time. Be sure to label and number your axes.
  - d. Label on the graph where your velocity is positive, negative, and/or zero.
  - e. What is your average velocity for the whole drive?
  - f. What is your instantaneous velocity at  $t = 10$  seconds after you start driving?
3. A student places a small 2.0-kg cart at the bottom of a ramp and then pulls it up the ramp at a constant velocity. The student uses 4.0 Newton's of force and the student pulls the cart a distance of 1.0 meter. The 2.0-kg cart gains 0.10 meter in elevation as it travels 1.0 meter up the ramp.
  - a) How much work did the student perform pulling the cart up the ramp?
  - b) How much gravitational potential energy did the cart gain after being pulled up the ramp?
4. You are driving your car and turning towards the right. Your acceleration must be towards the center of the circle (to the right), but you feel yourself pressed against the left side of your car. Explain why.
5. As a rocket continues to burn fuel (and lose mass), a constant thrust (force) gives it an increased acceleration. Why is this so and what principle is involved? .
6. Toss a rock at an angle into the air and it follows a curved path. Its velocity at any instant can be resolved into horizontal and vertical components. Which of these components changes with time, and why?
7. Can an object have mechanical energy without having momentum? Momentum without having energy? Explain.
8. Discuss how energy conservation applies to a swinging pendulum. Where is potential energy the most? The least? Where is kinetic energy the most? The least? Where is the pendulum bob moving fastest? Slowest?
9. Name one possible disadvantage to each of the following types of renewable energy resources: solar electric (photovoltaic), wind, trash incineration, hydroelectric.

10. Someone who wants to sell you a Superball says that it will bounce to a height greater than the height from which you drop it.
- Is this possible? Why or why not?
  - Next, they say that it will bounce to a height greater than the height from which you throw it downwards. Is this possible? Why or why not?
11. An electric car still uses the same amount of energy as a traditional car, but it is said to use “cleaner” energy. What does this mean?
12. Would you personally be willing to pay more money for electricity generated with renewable energy? Why or why not?
13. A student places 200 grams of water in a Styrofoam cup and determines that its temperature equals  $20.0^{\circ}\text{C}$ . The student places a 100-gram metal block into a pan of hot water. The temperature of the hot water equals  $100.0^{\circ}\text{C}$ . The student removes the metal block from the hot water and places it into the water in the Styrofoam cup. The final temperature of the water in the Styrofoam cup is  $24.0^{\circ}\text{C}$ . If the specific heat of water equals  $1.00\text{ cal/g }^{\circ}\text{C}$ , what is the specific heat of the metal block? .
14. A student attaches an object with a mass of 2.0 kg (weight = 19.6 N therefore the spring force = 19.6 N) to a spring and the spring stretches 12.25 cm. .
- Determine the spring constant for the spring.
  - Determine the period of vibration for the spring once this object is vibrating at the end of the spring.
15. A student places a 2-ohm, 4-ohm, and 6-ohm resistor in a **series** circuit attached to a 24volt DC power source.
- Determine the equivalent resistance in the circuit.
  - Determine the current that is going through each resistor.
  - Determine the voltage drop across each resistor.

# Lab: Air Resistance

When you solve physics problems involving free fall, often you are told to ignore air resistance and to assume the acceleration is constant. In the real world, because of air resistance, objects do not fall indefinitely with constant acceleration. One way to see this is by comparing the fall of a baseball and a sheet of paper when dropped from a meter height. The baseball is still accelerating when it hits the floor. Air has a much greater effect on the motion of the paper than it does on the motion of the baseball. The paper does not accelerate very long before air resistance reduces the acceleration so that it moves at an almost constant velocity. When an object is falling with a constant velocity, we describe it with the term *terminal velocity*, or  $v_T$ . The paper reaches terminal velocity very quickly, but on a short drop to the floor, the baseball does not.

Air resistance is sometimes referred to as a *drag force*. Experiments have been done with a variety of objects falling in air. These sometimes show that the drag force is proportional to the velocity and sometimes that the drag force is proportional to the square of the velocity. In either case, the direction of the drag force is opposite to the direction of motion. Mathematically, the drag force can be described using  $F_{drag} = -bv$  or  $F_{drag} = -cv^2$ . The constants  $b$  and  $c$  are called the *drag coefficients* that depend on the size and shape of the object.

When falling, there are two forces acting on an object: the weight,  $mg$ , and air resistance,  $-bv$  or  $-cv^2$ . At terminal velocity, the downward force is equal to the upward force, so  $mg = -bv$  or  $mg = -cv^2$ , depending on whether the drag force follows the first or second relationship. In either case, since  $g$  and  $b$  or  $c$  are constants, the terminal velocity is affected by the mass of the object.

Taking out the constants, this yields either

$$v_T \propto m \quad \text{or} \quad v_T^2 \propto m$$

If we plot mass versus  $v_T$  or  $v_T^2$ , we can determine which relationship is more appropriate.

In this experiment, you will measure terminal velocity as a function of mass for falling coffee filters and use the data to choose between the two models for the drag force. Coffee filters were chosen because they are light enough to reach terminal velocity in a short distance.

## OBJECTIVES

- Observe the effect of air resistance on falling coffee filters.
- Determine how air resistance and mass affect the terminal velocity of a falling object.
- Choose between two competing force models for the air resistance on falling coffee filters.

## MATERIALS

computer  
Vernier computer interface  
filters Logger *Pro*


Vernier Motion Detector  
5 basket-style coffee



## PRELIMINARY QUESTIONS

1. Hold a single coffee filter in your hand. Release it and watch it fall to the ground. Next, nest two filters and release them. Did two filters fall faster, slower, or at the same rate as one filter? What kind of mathematical relationship do you predict will exist between the velocity of fall and the number of filters?
2. Sketch your prediction of a graph of the velocity vs. time for one falling coffee filter.
3. If a filter is moving at a constant velocity, what do you know about the forces on the filter?

## PROCEDURE

1. Connect the Vernier Motion Detector to a digital (DIG) port of the interface. Set the Motion Detector sensitivity switch to Ball/Walk.
2. Support the Motion Detector about 2 m above the floor, pointing down, as shown in Figure 1.
3. Open the file “13 Air Resistance” from the *Physics with Vernier* folder.
4. Place a coffee filter in the palm of your hand and hold it about 0.5 m under the Motion Detector. Do not hold the filter closer than 0.15 m.
5. Click **Collect** to begin data collection. When the Motion Detector begins to click, release the coffee filter directly below the Motion Detector so that it falls toward the floor. Move your hand out of the beam of the Motion Detector as quickly as possible so that only the motion of the filter is recorded on the graph.
6. If the motion of the filter was too erratic to get a smooth graph, repeat the measurement. With practice, the filter will fall almost straight down with little sideways motion.
7. The velocity of the coffee filter can be determined from the slope of the position vs. time graph. At the start of the graph, there should be a region of increasing slope (increasing velocity), and then it should become linear. Since the slope of this line is velocity, the linear portion indicates that the filter was falling with a constant or terminal velocity ( $v_T$ ) during that time. Drag your mouse pointer to select the portion of the graph that appears the most linear. Determine the slope by clicking Linear Fit, .
8. Record the slope in the data table (a velocity in m/s).
9. Repeat Steps 4–8 for two, three, four, and five coffee filters. (Optionally extend to six, seven and eight filters, using a sufficient fall distance so that a clear velocity can be measured.)

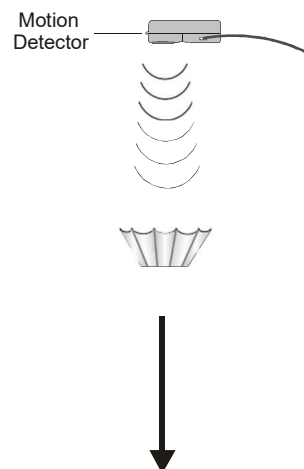
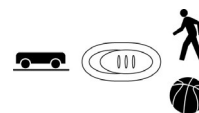


Figure 1

## Data Table

Number of filters	Terminal velocity $v_T$ (m/s)	(Terminal velocity) <sup>2</sup> $v_T^2$ (m <sup>2</sup> /s <sup>2</sup> )
1		
2		
3		
4		
5		

## ANALYSIS

1. To help choose between the two models for the drag force, plot terminal velocity  $v_T$  vs. number of filters (mass). On a separate graph, plot  $v_T^2$  vs. number of filters. Use either *Logger Pro* or graph paper. Scale each axis from the origin (0,0). Page 2 of the experiment file is already prepared for you.
2. During terminal velocity the drag force is equal to the weight ( $mg$ ) of the filter. If the drag force is proportional to velocity, then  $v_T \propto m$ . Or, if the drag force is proportional to the square of velocity, then  $v_T^2 \propto m$ . From your graphs, which proportionality is consistent with your data; that is, which graph is closer to a straight line that goes through the origin?
3. From the choice of proportionalities in the previous step, which of the drag force relationships ( $-bv$  or  $-cv^2$ ) appears to model the real data better? Notice that you are choosing between two different descriptions of air resistance—one or both may not correspond to what you observed.
4. How does the time of fall relate to the weight ( $mg$ ) of the coffee filters (drag force)? If one filter falls in time,  $t$ , how long would it take four filters to fall, assuming the filters are always moving at terminal velocity?

## EXTENSIONS

5. Make a small parachute and use the Motion Detector to analyze the air resistance and terminal velocity as the weight suspended from the chute increases.
6. Draw a free body diagram of a falling coffee filter. There are only two forces acting on the filter. Once the terminal velocity  $v_T$  has been reached, the acceleration is zero, so the net force,  $\sum F = ma = 0$ , must also be zero

$$\sum F = -mg + bv_T = 0 \quad \text{or} \quad \sum F = -mg + cv_T^2 = 0$$

depending on which drag force model you use. Given this, sketch plots for the terminal velocity (y-axis) as a function of filter weight for each model (x-axis). (**Hint:** Solve for  $v_T$  first.)



## Just Another Day at the Beach Decision-making and Malignant Melanoma

---

### Part I—What?!

Sitting in the waiting room at the dermatologist's office, Bill couldn't believe what he had just heard. How could this be happening to him? Sure, he sunburned easily and his hair was red, but he was an accountant! How could he have skin **cancer**?

When he had developed the sore on his chest a month ago, he had thought nothing of it. It looked kind of ugly, but it didn't hurt and it was small, so he just ignored it. His wife, Betty, however, was a bit concerned, given how easily he sunburned. After watching the "thing," as she referred to it, get larger over a period of a few weeks she pressured him to get it looked at.

He made an appointment with a dermatologist who ordered a **biopsy**, but told him not to worry, the test was just a precaution. That was two weeks ago. Today the doctor had told him that he had a **tumor**. He had just been diagnosed with **malignant melanoma**, a form of skin cancer.

All he could think was, "What am I going to do?"

### Questions

Using the Internet, your textbook, or any other source you wish, complete the following tasks. Please *type* your definitions and questions and list your sources. Keep in mind what makes an Internet source valid.

1. Define in your own words each of the four terms displayed above in boldface.
2. List and briefly describe the stages of cancer.
3. List the risk factors for melanoma.
4. List five questions that our patient should ask his doctor before deciding on a treatment option. List five questions that the doctor should ask the patient. These questions should be your own.

## Part II—Two weeks later...

Two weeks later, Bill found himself in the same waiting room again. Dozens of questions ran through his mind. Why hadn't he thought of any of them when he was first diagnosed? He had called and asked about treatment options so he could make some kind of decision about what to do. He had lots of answers but the choices just weren't clear to him or Betty. If he did nothing at all, the cancer would kill him, but how could he figure out what treatment option would work the best? Would any of them work at all?

He still had one question, one that nobody could answer for sure: *What should he do?*

## Questions

Now that you have had your questions answered and have a bit more information about melanoma, use the Internet, your textbook, or any other sources to answer the big question: *What should Bill do?*

To do that, you can start by answering these “smaller” questions:

1. What are the possible treatments for cancer? How do those treatments kill cancer cells? Which work well for melanoma?
2. Given what you now know about melanoma, what do *you* think Bill should do?

You must make a decision; no waffling. Write at least one page (typed) exploring Bill's options and explaining your reasons for deciding on a treatment. Make sure to explain why you arrived at your decision by discussing the treatment options available. Include a list of sources you consulted.

## Part III—Three years later...

“How? Why?” Bill thought. The doctor had just told him the biopsy was positive! It was unbelievable that the cancer could be back after three years. He thought he was cured! The swelling in his jaw hadn’t worried him at all. He had figured that it was just an infected salivary gland. He had one of those before. He went to the doctor and started on a 10-day course of antibiotics, but the antibiotics didn’t work. The swelling got worse while he was taking the drugs. He went back to the doctor, figuring he would just get another type of drug. To Bill’s surprise the doctor ordered a biopsy.

A biopsy! Why? He had done everything the doctor told him to do. He had surgery to remove the tumor and extensive skin, fat, and muscle from around the tumor. He didn’t have chemotherapy or radiation, as his lymph nodes seemed normal and no sign of cancer was found anywhere else. Given the 80 percent, five-year survival rate for his type of tumor, he had relaxed and thought no more about it except during his frequent trips to the doctor for screenings. He thought everything was fine. But he was wrong.

His submandibular lymph nodes had been invaded by melanoma.

## Questions

Now that you know what course of treatment Bill chose and how it turned out, using the Internet, your textbook, or any other source you wish, answer the question: *Now what?*

Given what you now know about melanoma, what do you think Bill should do? What were his options? Did he have any? His case took place in the late 1980s. Would other options be available to him today? If he were diagnosed today, what should he do?

Write at least one page (typed) explaining what you think the patient should do given his diagnosis. List any sources you consulted.

## Part IV—Conclusion

The case we have been working on is a real case. The patient was diagnosed with stage II melanoma in December 1986 at the age of 53. He had the tumor and some skin removed. He continued to be seen regularly by a dermatologist. He was in good health during this time and suffered no problems related to the cancer.

In December 1989, his submandibular lymph glands tested positive for melanoma. He was diagnosed with late stage III melanoma. Because this type of cancer doesn't respond to conventional chemotherapy, he was enrolled in a clinical trial testing the effects of the cytokine Interleukin-2 on advanced melanoma. His lymph glands were removed and the tumors kept alive for later use. The plan was to wait for another tumor to appear and then use the old tumor to train his immune system to fight the new tumor. He recovered well from the surgery and suffered very mild symptoms of numbness and some facial paralysis, but was otherwise healthy and pain-free.

In March 1991 another tumor was discovered in his liver. He had progressed to stage IV. Unfortunately, the cancer cells the doctors had tried to keep alive had died. So, the liver tumor was removed and kept alive while the doctors waited for further metastasis. Again, he recovered well from the surgery and continued to be symptom-free.

In June 1991 a tumor was discovered in his lung. Plans were made for treatment, but again technical difficulties prevented the patient from undergoing treatment. By August 1991 he had eight separate metastases to his intestines, heart, bones and abdominal lymph glands and was too sick to undergo the experimental treatment. He had radiation and interferon treatment in an unsuccessful attempt to alleviate some of his pain.

He died in April 1992 at age 58, five years and four months after the initial diagnosis of stage II melanoma.

### Discrete Mathematics - Comprehensive Exam

1. Consider the statements  $R$ ,  $W$ , and  $M$  below.

$R$  = It rains.

$W$  = Marco goes for a walk.

$M$  = Marco goes to a movie.

Write the following statement symbolically.

Marco does not go to a movie and it does not rain.

2. Use a truth table to verify the equation below.

$$\sim(P \wedge Q) \wedge \sim Q = \sim Q$$

3. Determine whether the statement below is true or false.

$$\exists x \in \mathbb{Z} \text{ such that } \forall y \in \mathbb{Z}, \frac{y}{x} \in \mathbb{Z}$$

4. Prove or give a counterexample to the following implication.

$x^2$  is positive only if  $x$  is positive.

5. Fill in the blank with the appropriate symbol,  $\in$  or  $\subseteq$ .

a.  $\{3\}$  \_\_\_\_\_  $\{1, 2, 3, 4\}$

b.  $3$  \_\_\_\_\_  $\{1, 2, 3, 4\}$

c.  $\emptyset$  \_\_\_\_\_  $\{1, 2, 3, 4\}$

6. Let  $S = \{1, 3, 5, 7, 9\}$ ,  $T = \{1, 2, 3, 4, 5\}$ , and  $V = \{3, 6, 9\}$ . List the elements of the specified sets.

a.  $S \cap T$

b.  $S \cup V$

c.  $T \cap (V \cup S)$

7. For any two finite sets  $S$  and  $T$ , show that the average of  $|S|$  and  $|T|$  does not exceed  $|S \cup T|$ .

8. For the following sequence, give the  $n$ -th term  $a_n$  in terms of  $n$ .

1, 3, 6, 10, 15, 21, ...

9. Determine if the following series converges or diverges. If it converges, determine what number it converges to.

$$\sum_{n=1}^{\infty} \left(\frac{1}{2}\right)^n$$

10. For  $m = 175$  and  $n = 200$ , find  $\text{lcm}(m, n)$  and  $\text{gcd}(m, n)$  using prime factorization.

11. Use the Euclidean Algorithm to find  $\text{gcd}(297, 954)$  and write  $\text{gcd}(297, 954)$  as a linear combination of 297 and 954.

12. Show that for any  $n \in \mathbb{Z}$ ,  $n^3$  is congruent to 0 or 1, or -1 modulo 9.

13. Find the product.

$$\begin{bmatrix} 1 & 4 \\ -2 & 3 \end{bmatrix} \cdot \begin{bmatrix} 1 & 3 & -4 \\ 6 & 8 & 0 \end{bmatrix}$$

14. Convert  $12 \times 15$  to a binary representation, then find the product. Convert the product back to decimal representation.

15. A trumpet has three valves. Each note produced has a “fingering position” specifying which subset of the three valves is depressed. How many different fingering positions are there?

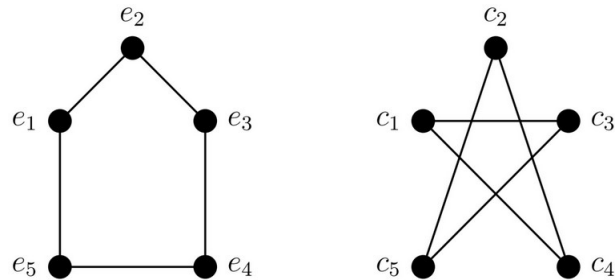
16. Jeff wants a pizza with three different toppings. The menu lists eight toppings that he likes. How many possibilities are there for his order?

17. Every third-grade student at an Elementary School is required to bring a stack of six folders. Three red, two blue, and one green. If 65 third-grade students each bring his or her folders stacked randomly, must there be a pair of students with the same color arrangement of folders?

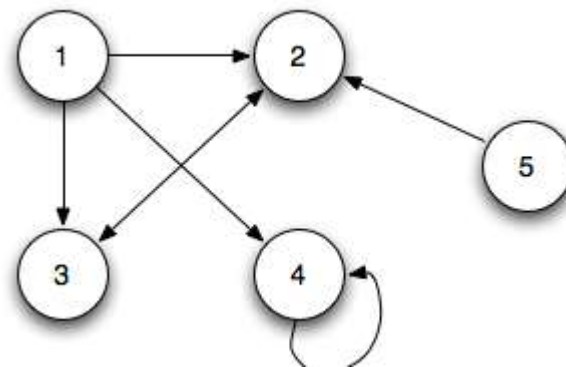


18. Twenty state quarters from each of 13 original states are placed in a large bowl. One quarter is selected at random and tossed. What is the probability that it is a Virginia quarter and lands tails?

19. Are these two graphs isomorphic? Why or why not?



20. Find the adjacency matrix for the graph given below.



## FILM ANALYSIS PAPER

### Brief Introduction

In addition to entertaining us, movies offer detailed portrayals of human social behavior. Your task in this assignment is to analyze -- **from a positive psychology perspective -- the behaviors and signature strengths** depicted in one of the films listed below. You are not being asked to critique the film in terms of its value as a work of art or as entertainment. Rather, you should think carefully about the positive psychology themes depicted in the film. **Consider strengths, virtues, emotions, positive relationships, accomplishments, mindfulness, and resilience.**

This assignment is comprehensive: I urge you to bring any/all concepts encountered in this course that relate to the issues, interactions, and behaviors portrayed.

### Assignment

Choose a movie and view it at least once. (Two viewings may offer a distinct advantage). Then, after reviewing your notes and readings write a 2-3 page paper addressing the following:

- briefly describe the film (you may assume that your reader has seen the film)
- describe in detail the positive psychology themes in the film.
- what character strengths did the characters exhibit?
- How might this film, or character, inspire you to make a change or do something different in your life?
- What does the movie teach you about the human condition?
- Present the scene and your analysis to your classmates

Your written analysis should be succinct and well-written . Be sure to include a short introduction to orient the reader.

Proper APA format and style Reference is always required!

- a. Title Page
- b. Running Head starting in the upper left corner
- c. Page Numbers in the upper right corner
- d. In-Text Citations throughout the paper

Reference page done in APA format citing the web pages used, our text book, & the movie

**Have fun!**

# **Rubric: Film Analysis**

<b>Criteria</b>	<b>Level 4 (80-100%)</b>	<b>Level 3 (70-79%)</b>	<b>Level 2 (60-69%)</b>	<b>Level 1 (50-59%)</b>
<b>Knowledge</b>	- clearly explains a multitude of key concepts and themes in positive psychology	- explaining the key concepts and themes in positive psychology	-making some effort to explain the concepts and themes in positive psychology	-making a limited effort to explain the concepts and themes in positive psychology
<b>Application</b>	-making excellent connections to positive psychology, character strengths and virtues and real life	-making considerable connections to positive psychology, character strengths and virtues and real life	-Lacking a varied use of connections to positive psychology, character strengths and virtues and real life	-making little use of connections to positive psychology, character strengths and virtues and real life
<b>Thinking / Inquiry</b>	<ul style="list-style-type: none"> <li>- providing exceptional analysis in the descriptions and critical comparisons of various themes found in the films and how and their relation to real life</li> <li>-provides excellent connections between the various films messages / themes and makes critical applications of how the medium delivers an effective message</li> </ul>	<ul style="list-style-type: none"> <li>-providing clear analysis in the descriptions and good comparisons of various themes found in the films and how and their relation to real life</li> <li>-provides clear connections between the various films messages / themes and makes applications of how the medium delivers an effective message</li> </ul>	<ul style="list-style-type: none"> <li>-providing some analysis in the descriptions and adequate comparisons of various themes found in the films and how and their relation to real life</li> <li>-provides some connections between the various films messages / themes but needs more clear applications of how the medium delivers an effective message</li> </ul>	<ul style="list-style-type: none"> <li>-provides little analysis in the descriptions and few comparisons of various themes found in the films and how and their relation to real life</li> <li>-provides few connections between the various films messages / themes</li> </ul>
<b>Communication</b>	<ul style="list-style-type: none"> <li>-exceptional introduction that includes a clear thesis and outline for analysis</li> <li>-ending with a clear and effective conclusion, summing up the evidence</li> <li>- Information presented very organized and contains exceptional language conventions</li> </ul>	<ul style="list-style-type: none"> <li>-begins with a clear introduction with thesis and overview of films</li> <li>-ending with a clear conclusion, summing up the evidence</li> <li>- Information presented organized and contains good language conventions</li> </ul>	<ul style="list-style-type: none"> <li>-begins with an intro. that attempts to set the scene</li> <li>-ending with a conclusion and attempts to sum up the evidence</li> <li>- Information presented is somewhat organized and contains some errors in language conventions</li> </ul>	<ul style="list-style-type: none"> <li>-Begins with an intro. that does not set the scene</li> <li>-ending with a conclusion and makes little attempt to sum up the evidence</li> <li>- Information lacks clear organization and contains numerous errors in language conventions</li> </ul>

## **Willy Wonka and the Chocolate Factory**

Issues dealing with prejudice, discrimination, attitudes, attitude change, person perception, self, social influence, helping behaviour, empirical methods, parenting styles commentary, competition

## **Lord of the Rings**

Issues dealing with attitudes, violence, deception, compliance, obedience, person perception, self, altruism, interpersonal attraction, personal relationships, helping behaviour, aggression

## **Chocolat**

Issues dealing with prejudice, discrimination, attitudes, compliance, conformity, obedience, attitude change, person perception, self, social influence, interpersonal attraction, personal relationships, helping behaviour

## **One-hour Photo**

Issues dealing with social construct theory, discrimination, attitudes, violence, deception, attitude change, person perception, self, social influence, interpersonal attraction, personal relationships, aggression

## **Footloose**

Issues dealing with prejudice, discrimination, attitudes, obedience, attitude change, person perception, self, social influence, interpersonal attraction, personal relationships

## **The Breakfast Club**

Issues dealing with prejudice, discrimination, attitudes, violence, compliance, conformity, obedience, attitude change, person perception, self, social influence, interpersonal attraction, personal relationships, helping behaviour, social facilitation

## **Titanic**

Issues dealing with prejudice, discrimination, attitudes, compliance, conformity, obedience, attitude change, person perception, self, social influence, interpersonal attraction, personal relationships, helping behaviour, competition

## **The Cell**

Issues dealing with attitudes, violence, deception, person perception, self, social influence, personal relationships, aggression

## **Pulp Fiction**

Issues dealing with attitudes, violence, obedience, person perception, self, aggression

## **Braveheart**

Issues dealing with prejudice, discrimination, attitudes, violence, compliance, conformity, obedience, person perception, self, personal relationships, helping behaviour, aggression

### **Forrest Gump**

Issues dealing with optimism, discrimination, attitudes, deception, compliance, obedience, attitude change, person perception, self, interpersonal attraction, personal relationships, helping behaviour

### **Goodfellas**

Issues dealing with prejudice, attitudes, violence, deception, compliance, conformity, obedience, attitude change, person perception, self, social influence, interpersonal attraction, personal relationships, helping behaviour, aggression

### **Saving Private Ryan**

Issues dealing with prejudice, gender, discrimination, attitudes, violence, deception, compliance, conformity, obedience, attitude change, person perception, self, social influence, interpersonal attraction, personal relationships, helping behaviour, aggression

### **Beauty and the Beast**

Issues dealing with prejudice, gender, discrimination, attitudes, violence, deception, compliance, conformity, obedience, attitude change, person perception, self, social influence, interpersonal attraction, personal relationships, helping behaviour, aggression

### **The Shawshank Redemption**

Issues dealing with prejudice, gender, discrimination, attitudes, violence, deception, compliance, conformity, obedience, attitude change, person perception, self, social influence, interpersonal attraction, personal relationships, helping behaviour, aggression

### **Fear**

Issues dealing with prejudice, gender, discrimination, attitudes, violence, deception, compliance, conformity, obedience, attitude change, person perception, self, social influence, interpersonal attraction, personal relationships, helping behaviour, aggression

### **Silence of the Lambs**

Issues dealing with prejudice, gender, discrimination, attitudes, violence, deception, compliance, conformity, obedience, attitude change, person perception, self, social influence, interpersonal attraction, personal relationships, helping behaviour, aggression

### **The Fugitive**

Issues dealing with prejudice, gender, discrimination, attitudes, violence, deception, compliance, conformity, obedience, attitude change, person perception, self, social influence, interpersonal attraction, personal relationships, helping behaviour, aggression

### **Toy Story**

Issues dealing with prejudice, gender, discrimination, attitudes, violence, deception, compliance, conformity, obedience, attitude change, person perception, self, social influence, interpersonal attraction, personal relationships, helping behaviour, aggression

### **Monsters Inc.**

Issues dealing with prejudice, gender, discrimination, attitudes, violence, deception, compliance, conformity, obedience, attitude change, person perception, self, social influence, interpersonal attraction, personal relationships, helping behaviour, aggression

### **Single White Female**

Issues dealing with prejudice, gender, discrimination, attitudes, violence, deception, compliance, conformity, obedience, attitude change, person perception, self, social influence, interpersonal attraction, personal relationships, helping behaviour, aggression

### **Matrix**

Issues dealing with prejudice, gender, discrimination, attitudes, violence, deception, compliance, conformity, obedience, attitude change, person perception, self, social influence, interpersonal attraction, personal relationships, helping behaviour, aggression

### **The Unforgiven**

Issues dealing with prejudice, gender, discrimination, attitudes, violence, deception, compliance, conformity, obedience, attitude change, person perception, self, social influence, interpersonal attraction, personal relationships, helping behaviour, aggression

### **Chicken Run**

Issues dealing with prejudice, gender, discrimination, attitudes, violence, deception, compliance, conformity, obedience, attitude change, person perception, self, social influence, interpersonal attraction, personal relationships, helping behaviour, aggression

### **Shrek**

Issues dealing with prejudice, gender, discrimination, attitudes, violence, deception, compliance, conformity, obedience, attitude change, person perception, self, social influence, interpersonal attraction, personal relationships, helping behaviour, aggression

### **Being John Malkovich**

Examines person perception, self, attitudes, attitude change, interpersonal attraction, personal relationships, gender

### **Summer of Sam**

Deals with person perception, prejudice, social influence, aggression

### **Boys Don't Cry**

Issues dealing with prejudice, gender, discrimination, attitudes, attitude change, person perception, self, social influence, interpersonal attraction, personal relationships, helping behaviour, aggression

### **Pretty Woman**

Addresses person perception, attitude change, interpersonal attraction, personal relationships, gender, helping behaviour, aggression

### **Philadelphia**

Examines social cognition, person perception, self, attitude change, prejudice, personal relationships, aggression

### **Remember the Titans**

Addresses social cognition, person perception, attitude change, prejudice, interpersonal attraction, group behaviour

### **Quiz Show**

Examines social cognition, person perception, attitudes and attitude change

### **Twelve Angry Men**

Issues with social cognition, person perception, attitudes, prejudice, social influence, group behaviour, aggression, helping behaviour

### **The Joy Luck Club**

Addresses social cognition, person perception, self, attitudes, and personal relationships

### **Other possible movies:**

Pinocchio Fight Club Role models American Beauty Up! Fantastic Mr. Fox II Harry Potter Miss Congeniality Thelma and Louise One Flew Over the Cuckoo's Nest The Hurt Locker The Girl with the Dragon Tattoo Shutter Island The Book of Eli The Hitchhiker's Guide to the Galaxy Catch Me If You Can A Beautiful Mind Rocky Horror Picture Show The Hunger Games Salmon Fishing in the Yemen Se7en Pan's Labyrinth 9 Sex and the City 2001 Space Odyssey Sweet Home Alabama To Kill a Mockingbird Fried Green Tomatoes Vanilla Sky Dead Poets' Society Invictus Trainspotting Gran Torino Glengarry Glen Ross The Bang Bang Club Cinderella Man The Last Samurai Radio Australia Rudy Memoirs of a Geisha John Q. Hairspray The Boy in the Striped Pyjamas The Godfather The Sixth Sense The Freedom Writers The Blindside Law Abiding Citizen Grease The Curious Case of Benjamin Button West Side Story American Psycho	Super 8 The Hangover Chronicle The Expendables 300 Pandorum The Lorax 8 mile Shawn of the Dead Seven Pounds A Streetcar Named Desire The Pursuit of Happyness The Bucket List Batman Begins As Good as it Gets Clockwork Orange Extremely Loud and Incredibly Close Planet of the Apes  Slumdog Millionaire  The Help Mean Girls This is England Inglorious Bastards Avatar American History X Inception Reservoir Dogs Training Day The Wedding Planner Blow Requiem for a Dream Lion King Big Fish Restrepo Mission Impossible Taken Little Miss Sunshine Scarface The Way we Were Pirates of the Caribbean Crash Edward Scissor Hands Sweeney Todd Enough Fracture Crazy, Stupid Love
---	---



Gone with the Wind Double Jeopardy The Departed An Education The Butterfly Effect The Outsiders	
--	--

**GENUS *STAPHYLOCOCCUS*: Identification of Species**

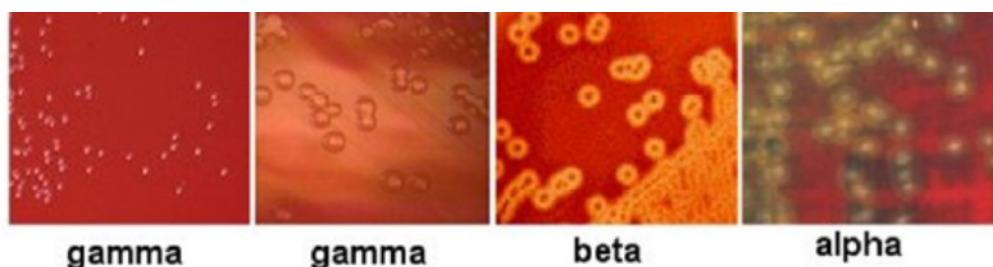
*Staphylococcus* is a genus of Gram +, nonspore-forming cocci belonging to the family *Micrococcaceae* that are often found as normal human microbiota of the skin and nasal cavity. There are five organisms to consider as potential human pathogens in this genus: *S. aureus*, *S. epidermidis*, *S. saprophiticus*, *S. haemolyticus*, and *S. hominis* but the first three are the most common isolates. *S. aureus* is often considered to be the most problematic of the three pathogens and is distinguished from the other two by being the only one able to coagulate plasma. *S. aureus* is able to cause many superficial pyogenic (pus-forming) infections of the dermis and underlying tissues as well as serious systemic infections. It can produce a range of toxins including enterotoxins (food poisoning), cytotoxins (general systemic toxins), and toxic shock superantigens. The other coagulase- negative staphylococci (*S. epidermidis* and *S. saprophiticus*) are much less frequently found as pathogens but are occasionally associated with endocarditis, prosthetic joint infections, and wound infections, just to name a few.

This exercise gives you the opportunity to use **selective** media, in this case based on high sodium chloride (MSA and SM1 10 are both selective media for the isolation of *Staphylococci*- 7.5% NaCl). A selective medium has an inhibitory agent which favors the growth of certain bacteria by inhibiting others. MSA contains an additional indicator for monitoring mannitol fermentation, which makes it a **differential** media also. Of the bacteria which can grow in the presence of high NaCl, some are halophilic (requiring a certain concentration of salt to grow) while others are haloduric (do not use the salt, but can tolerate it). *Staphylococcus* is not halophilic, but rather haloduric, in that it can live in or endure high NaCl concentrations. The high salt content in SM1 10 and MSA inhibits other common skin microorganisms. The other media being used in this exercise are for differentiating pathogenic *Staphylococcus* from nonpathogenic, and for identification of the species.

*Staphylococcus* is not only salt resistant but are always facultatively anaerobic. When stained, it will be seen in small clusters (staphylo = cluster). *Staphylococcus* is usually either beta hemolytic or not hemolytic at all (called gamma hemolysis). Pathogenic Staphylococci can produce a variety of virulence factors, including toxins, coagulase, leucocidins, and hydrolytic enzymes that can damage host tissues.

Blood agar (BAP) is a common medium used to culture bacteria because 1) it is a great enrichment medium for **fastidious** bacteria, and 2) hemolysis of blood cells can be very useful as an identification test. Blood agar is made with 5% sheep blood. **CNA** agar is a type of blood agar: the only difference is that CNA has an antibiotic, naladixic acid, that inhibits gram -bacteria.

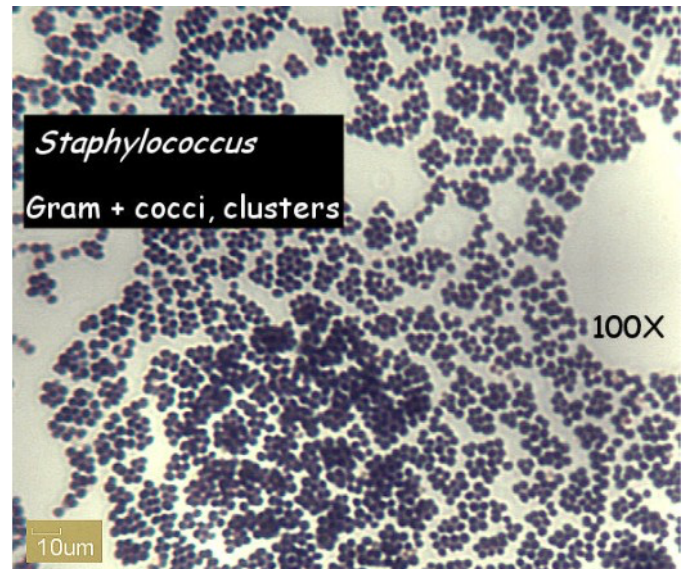
Hemolysis is the breakdown of red blood cells: hemolysins are enzymes produced by some bacteria and are released into the medium around the bacterial colony. It can be a complete breakdown of the cells, with the release of hemoglobin and a clearing of the red from the surrounding medium around the colony. Or the hemolysis can be a partial breakdown, resulting in a greenish or green-yellow zone around the colony.

**OBJECTIVES:**

Become familiar with the speciation of the genus *Staphylococcus*  
 Grow and identify different staphylococci species using selective and differential agar  
 Identify the 3 hemolytic types on blood agar.

## MATERIALS NEEDED: per table

Sterile swabs  
 Sterile saline solution  
 1 Mannitol salt agar (MSA) plates  
 Containers of alcohol + forceps  
 1 Columbia nalidixic acid blood agar plate (CNA) 1  
 Staphylococcus medium 110 (SM110) agar plate 1  
 DNase agar plates  
 Novobiocin (5 microgram) antibiotic disks  
 Metric rulers  
 Rabbit plasma (frozen) for coagulase test



**Other media for identification:** arginine and ornithine decarboxylase broths  
 urea broth ONPG sucrose, trehalose, maltose  
 VP broth nitrate broth thioglycolate broth (for anaerobic growth)

## SCHEMATIC OF IDENTIFICATION PROCEDURE

<b>1<sup>st</sup> period</b>	→	<b>2<sup>nd</sup> period</b>	→	<b>3<sup>rd</sup> period</b>	→	<b>4<sup>th</sup> period</b>
CNA	DNase	coagulase		run other needed tests		identify species
MSA	SM110	ONPG		(see list right above)		
catalase	oxidase					
gram	phenol red lactose					
stain	broth					

## THE PROCEDURES:

Be sure to keep a list of all test results for your isolates.

### 1<sup>st</sup> Session

- Each table will be given a Staphylococcal species growing on a NA or TSA plate.
- Using an **isolation streak technique**, inoculate the Columbia nalidixic acid (CNA) and place the novobiocin disc in section 1.
- Novobiocin sensitivity is a key, differentiating features among some of the *Staphylococcus* species. Place forceps into the alcohol and then sterilize the forceps by running them through the flame quickly. The alcohol will catch on fire and when evaporated from the forceps, they will then be sterile. You may now pick a novobiocin disc from the holder to place on the CNA plate—in the **FIRST streak section** (where there will be confluent growth of the bacterium).  
 For the other agar plates--SM 110 plate, mannitol salt agar (MSA) plate, DNase agar plate—an inoculation line down the center of the plate is adequate for growth results.
- Incubate media at 37°C.
- Run oxidase and catalase tests on plate culture (**see those exercises in individual lab**

**exercises).**

6. Gram stain the isolate to get shape and arrangement as well as gram reaction.
7. We will be doing the ONPG test the next session. That test requires the turning on of a set of genes, the lac operon. To induce this activity, the bacterium has to be exposed to lactose. This is why you will also inoculate a tube of phenol red lactose broth.

2<sup>nd</sup> Session

1. **Go to individual lab exercises** to interpret the mannitol salt and DNAase test (requires HCl).
1. On the CNA plate, you are checking for 2 reactions---sensitivity to novobiocin antibiotic AND hemolysis of blood.
  - a. Novobiocin sensitivity - A zone of 17 mm indicates sensitivity
  - b. Hemolytic reactions
    - alpha ( $\alpha$ ) hemolysis – green zone around colony, caused by leaking hemoglobin converted to biliverdin, called a partial hemolysis
    - beta ( $\beta$ ) hemolysis – complete clearing around colony caused by breakdown of RBCs by streptolysin enzymes
    - gamma ( $\gamma$ ) hemolysis - no hemolysins, no zone

*Staphylococcus* species are either beta hemolytic or gamma (not hemolytic). *Staph aureus* produces alpha toxin which typically causes wide zones of beta (complete) hemolysis.
2. Check the SM 110 for growth and for pigment. Nutrients and vitamins in this medium enhance the pigmentation of the pathogenic *Staphylococcus*, those colonies becoming a yellow-orange colony.
3. Run the coagulase test: there is a **linked exercise** for this test. There are only a few species of *Staphylococcus* that are positive for the coagulase test (see table below), and *S. aureus* is the most common. Since there are 2 kinds of coagulase enzyme—bound and free---there are 2 different tests that can be used to identify these enzymes. **The TUBE method is the definitive test of the 2, the most reliable.** The coagulase test exercise in the lab manual clearly describes these 2 versions.
4. The ONPG test will be run. Look in your lab exercises for this test for the directions on how to run the test. Since there is very little liquid in the tube, you will want to cover the top of the tube with parafilm and then place the tube top over that. This reduces dehydration.

3<sup>rd</sup> Session

1. The major test reaction to use in *Staphylococcus* identification is the coagulase test reaction, which divides the genus *Staphylococcus* into 2 groups—coagulase negative species and coagulase positive species. The test media that you will run for identification depends on which category your organism falls in. You may want to run some of the following tests.  
**Available media:** arginine and ornithine decarboxylase broths  
urea broth      ONPG      sucrose, trehalose, maltose sugars  
VP broth      nitrate broth
2. **If you have a coagulase + Staph**, there are only a few species available as your choice: there is a table with those species below.
3. **If your organisms are coagulase negative**, check the flow chart below, as well as the Bergey's Manual or other identification books.
4. Run necessary tests for identification. **IT IS UP TO YOU TO DETERMINE WHAT EXTRA TESTS TO RUN FOR A CLEAR IDENTIFICATION.**

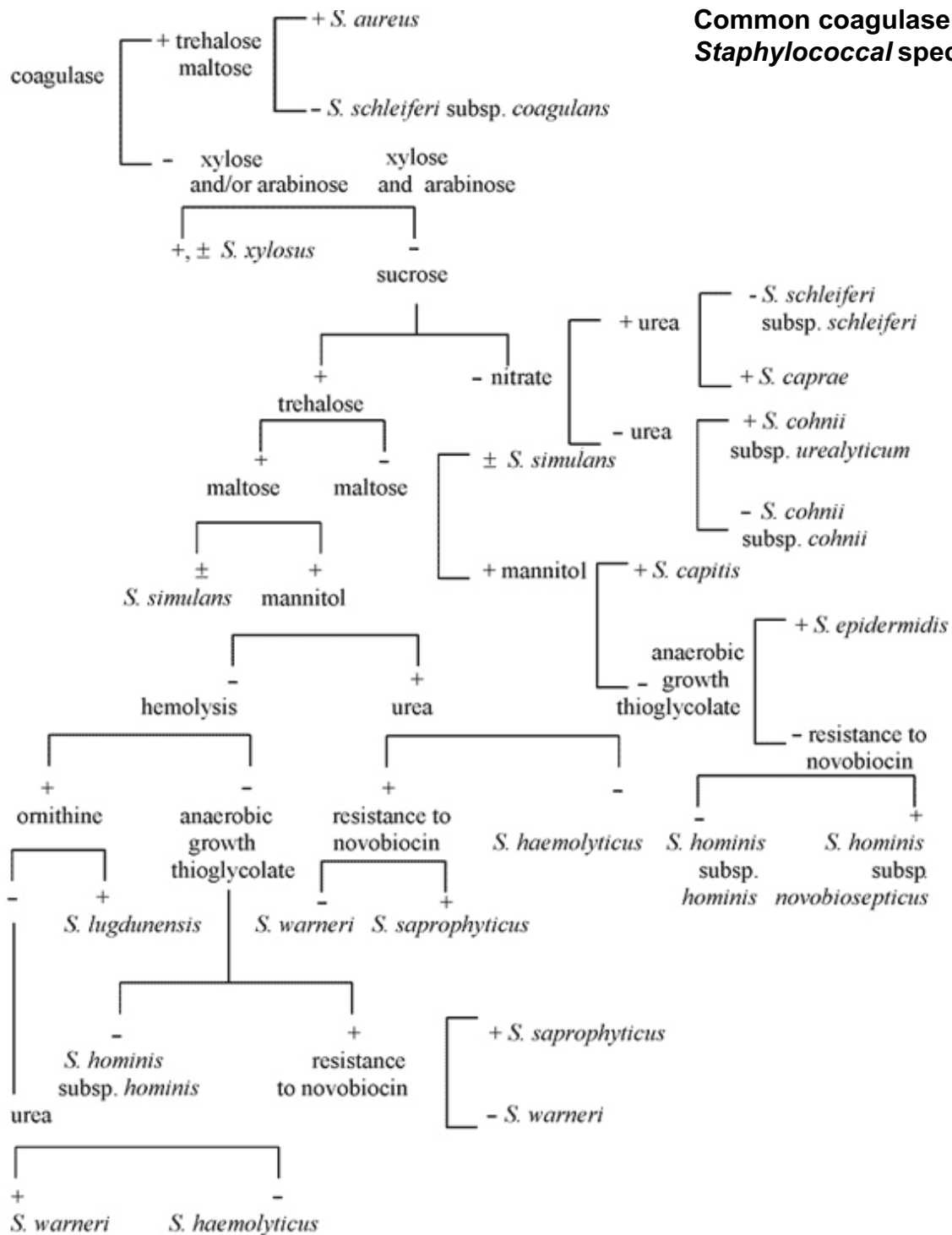
## 4<sup>th</sup> Session

1. Read any tests from last session (see lab exercises for information on test interpretations).
2. Write up a report for your *Staphylococcus* species identification, if your instructor directs you to do so.

## Differentiation among Coagulase Positive Staphylococci

	Tube coagulase	Acid from trehalose	VP test	ONPG test
<i>S. aureus</i>	+	+	+	-
<i>S. intermedius</i>	+	+	-	+
<i>S. hyicus</i>	variable	+	-	-
<i>S. schleiferi</i>	+	-	+	?

### Common coagulase negative *Staphylococcal* species



<b>Differentiation of <i>S. aureus</i> from other common human staphylococci normal flora</b>			
	<i>S. aureus</i>	<i>S. epidermidis</i>	<i>S. saprophiticus</i>
Alpha toxin ( $\beta$ -hemolysis)	+ (most strains)	-	-
Growth on 7.5% salt (mannitol salt)			
Acid from mannitol	+	-	+ (most strains)
Coagulase reaction	+	-	-
Pigment production (SM110)	Usually golden	Usually white	Usually white
DNase production	+ (usually)	-	-
Sensitivity to novobiocin	sensitive	sensitive	resistant

\* Novobiocin sensitivity = >17mm zone size

---

#### QUESTIONS:

1. Which type of hemolysis is often associated with pathogenicity?
  2. What are the distinguishing features of the genus ***Staphylococcus***?
  3. Can you give the test reaction of *S. aureus* for each of the major tests run---MSA, SM110, coagulase, catalase, oxidase, and DNase?
  4. What happens to RBCs in beta and alpha hemolysis?
-

## Lab 4: Thomson Cathode Ray Tube Experiment

### Purpose

To duplicate the Thomson cathode ray tube experiment and calculate from collected data the charge to mass ratio ( $q/m_e$ ) of an electron.

### Background

As scientist began to examine atoms, their first discovery was that they could extract negatively charged particles from atoms. They called these particles electrons. In order to understand the nature of these particles, they wanted to know how much charge they carried and how much they weighed. In 1897, John J. Thomson showed that if you could measure how much a beam of electrons were bent in an electric field and in a magnetic field, you could determine the charge to mass ratio ( $q/m_e$ ) for the particles (electrons). Knowing the charge to mass ratio ( $q/m_e$ ) and either the charge on the electron or the mass of the electron would allow you to calculate the other. Thomson could not obtain either in his cathode ray tube experiments and had to be satisfied with just the charge to mass ratio.

### Procedure

1. Start *Virtual ChemLab* and select *Thomson Cathode Ray Tube Experiment* from the list of assignments. The lab will open in the Quantum laboratory.
2. What source is used in this experiment? (The source is on the left. Drag your cursor over it to identify it.)

-

What type of charge do electrons have?

-

What detector is used in this experiment?

-

3. Turn on the *Phosphor Screen*. What do you observe?

-

4. Drag the lab window down the left and the phosphor screen window up and right in order to be able to minimize overlap. Push the *Grid* button on the phosphor screen, and set the Magnetic Field to  $30\ \mu\text{T}$ . (Click the button above the tens place three times.) What happens to the spot from the electron gun on the phosphor screen?

-

5. Set the *Magnetic Field* back to zero and set the *Electric Field* to 10 V. What happens to the spot from the electron gun on the phosphor screen?

-

Where should the signal on the phosphor screen be if the electric and magnetic forces are balanced?

-

6. Increase the voltage of the Electric Field to move the spot several centimeter from the center. To make your measurements more accurate, move the spot until it aligns with a grid marking. What is the voltage?

-

What is the distance from the center that the spot has moved (in cm)?

-

7. Increase the magnetic field strength until the spot reaches the center of the screen. What magnetic field creates a magnetic force that balances the electric force?

-



Deflected Distance (d)	Electric Field (v)	Magnetic Field (B)

Summarize your data.

8. In a simplified and reduced form, the charge to mass ratio ( $q/m_e$ ) can be calculated as follows:

$$q/m_e = (5.0826 \times 10^{12}) \cdot V \cdot d/B^2$$

where V = the electric field in volts, d = the deflected distance from center in cm, and B = magnetic field in  $\mu\text{T}$ .

What is your calculated value for the charge to mass ratio for an electron ( $q/m_e$ )?

-

The modern accepted value is  $1.76 \times 10^{11}$ . Calculate your percent error as follows:

$$\% \text{ Error} = | \text{your value} - \text{accepted value} | \div \text{accepted value} \times 100$$

-

Think Outside the Box:

1. Compare and contrast regular sunlight with the beam emitted from the Cathode Ray Tube.
2. When comparing the beam emitted from the Cathode Ray Tube and regular sunlight, we notice that some particles are more dominant than others. What do we do when we come in contact with people who are more dominant than others?
3. What would be an application for a modern day Cathode Ray Tube that has not been invented yet? (Can be as creative as you would like and does not have to be 100% realistic).



# Informative Speech Peer Evaluation Form

Please evaluate your colleague's speech by answering all questions below.

Please provide your NMT e-mail address, which is only for your record-keeping.

Peer evaluation forms are due Monday, March 1, 2021, by 11:59pm, and they equal 30% of your final grade.

**\* Required**

1. Did the speaker get the audience interest and attention? \*

*Mark only one oval.*

	1	2	3	4	5	
Not at all	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Absolutely

2. Did the speaker establish their credibility? \*

*Mark only one oval.*

	1	2	3	4	5	
Not at all	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Absolutely

3. Did the speaker make the topic relevant to the audience? \*

*Mark only one oval.*

	1	2	3	4	5	
Not at all	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Absolutely

4. Did the speaker use effective transition words and phrases to make the speech clear and easy to follow? \*

*Mark only one oval.*

	1	2	3	4	5	
Not at all	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Absolutely

5. Did the speaker provide a clear, solid conclusion? \*

*Mark only one oval.*

	1	2	3	4	5	
Not at all	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Absolutely

6. Did the speaker maintain good eye contact throughout the presentation? \*

*Mark only one oval.*

	1	2	3	4	5	
Not at all	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Absolutely

7. What did you like about the speech in particular? \*

---

---

---

---

---

8. Tips for the speaker on how to improve the speech: \*

---

---

---

---

---

---

This content is neither created nor endorsed by Google.

Google Forms

## **Assignment / ARTH 1110: Art Appreciation**

Due to the Covid-19 virus shutting down all entertainment and museums, it will be difficult for many of you to complete this assignment. To help you with that, I am attaching VIRTUAL TOUR LINKS to museums that you can still accomplish the below assignment. The due date for this will be the Friday of Week 16, MAY 6th still. If you have questions, please let me know:

<https://www.nationalgallery.org.uk/visiting/virtual-tours/google-virtual-tour>

<https://www.louvre.fr/en/visites-en-ligne>

[https://artsandculture.google.com/streetview/solomon-r-guggenheim-museum-interior-streetview/jAHfbv3JGM2KaQ?hl=en&sv\\_lng=-73.95902634325634&sv\\_lat=40.78285751667664&sv\\_h=100.63659236884682&sv\\_p=0.0000021305855234098357&sv\\_pid=MfnUmHRyOSzMtY3vtYU05g&sv\\_z=0.13858257768272864](https://artsandculture.google.com/streetview/solomon-r-guggenheim-museum-interior-streetview/jAHfbv3JGM2KaQ?hl=en&sv_lng=-73.95902634325634&sv_lat=40.78285751667664&sv_h=100.63659236884682&sv_p=0.0000021305855234098357&sv_pid=MfnUmHRyOSzMtY3vtYU05g&sv_z=0.13858257768272864)

Hello All,

**You are responsible for 2 response papers to the book's works and 1 Art Gallery paper in 3 documents in all this semester.** You will be responsible for visiting a museum, art gallery, or art showcase and writing a compare and contrast paper. There is no way to appreciate art from the book thoroughly. You need to go and experience it for yourself. I will not accept any paper about art or a museum visit you went to in the past. You will need to provide the date, time, place, and any other proof of attendance.

Now you can attend any Museum, Art Gallery, ShowCase, or Street Art vendor you choose. I will not allow any papers that are commenting on K-12 art; please visit someplace with PROFESSIONAL art you can have a much broader discussion about.

When you compare the two pieces within the museum, utilize all the key factors we have learned within the art course, such as Movement, Unity, Harmony, Variety, Balance, Contract, Proportion, and Pattern? What are the elements such as Texture, Form, Space, Shape, Color, Value, and Line- you must touch on all of these as well as the following questions:

- Who is the artist?
- What is the medium he/she is using?
- What is the historical significance of the two pieces, how do those two histories counter, collage, or mesh one another?
- What do you notice first?
- Why do you notice it?
- What is the second thing you notice?
- Why?
- What feelings do you get from work?

- Why?
- What do you think were the intentions of the artist?
- Were the intentions obvious or obscure?
- 

Here in Roswell, NM, we have TWO museums that you can visit; they are both FREE. We also have a national artist in residency that has existed since the 1970s. The links are below. I will not tell you what to choose, but you will need to use terminology from the book within your paper and use any other sources you may find to support your comparison and contrast for this assignment.

Links to the Roswell NM Museums:

The Anderson Museum of Contemporary Art <http://roswellamoca.org/>

Roswell Museum and Art Center: <http://roswell-nm.gov/308/Roswell-Museum-Art-Center>

## **INTRODUCTION TO THE NOVEL**

### **BLOGGING GUIDELINES**

*(Shelley, Twain, Doyle, Conrad)*

We will be using the WordPress publishing platform for our course site. Each student will establish and maintain their own blog through regular postings which correspond with our course reading schedule beginning with Chapter 1 of *Frankenstein* time. You should plan to consistently participate in creating content on your blog such as posting reflections on the course texts, discussing ideas put forth by other correspondents, reading and commenting on what others have posted, and linking to interesting/relevant material you may have encountered elsewhere. It is not a forum for gossip or argument; however, thoughtful discussion and dissent is always welcome.

Blogging participation will comprise 30% of your overall course grade.

#### **Blog Quantity & Deadlines**

All students must complete one self-generated Initial Post per week, as well as interacting/commenting on at least two other posts. Discussion threads and multiparty critiques are encouraged. To receive full credit, all Initial Posts are due by the beginning of the Course Week (no later than 10 pm Sunday nights) so others may have sufficient time to read/comment on your observations before Tuesday's class meeting. **Late blogs will receive half credit.**

Unless otherwise noted, all Initial Posts should be a minimum of 250 words. While comments can (and should!) be shorter because often you are simply providing a comment or quick response to someone else, I will not count anything less than 25 words towards fulfilling your weekly requirements – although you are free to post such 'quick take' comments if you wish.

Schedule some time on Mondays to read each week's Initial Posts in time Tuesday's class discussions.

#### **How to Blog**

Just like any other mode of writing, blogging has its own conventions and traditions. We will discuss this style more as the semester progresses. In the meanwhile, here is a link to an article about getting started using WordPress:

[How to Start a WordPress Blog - Easy Guide - Create a Blog \(2021\) \(wpbeginner.com\)](https://www.wpbeginner.com/how-to-start-a-wordpress-blog-easy-guide-create-a-blog-2021/)

For now, keep in mind that your entries are "informal" writing assignments: you do not need to revise them as meticulously as your formal essays. However, you should still proofread them for coherence/meaning as well as obvious spelling/grammar mistakes, and I do not expect overuse of slang, abbreviations, or text lingo.

#### **Purpose**

Your blogs are meant to prepare for our in-class discussions and your formal assignments, but they are also a place for you to record and reflect on your experiences reading and thinking about the literary works under consideration, including personal thoughts/emotions that are related to our course content and to your progress as novel readers throughout the semester. You are not restricted to just blogging when you are assigned to do so, and you should feel free to blog about things you are interested in and



you feel would be of interest to others in the class. The material you post on our course blog will become part of our class meetings: I will discuss excerpts from student blogs (both to facilitate writing workshops and to use as a jumping-off point for the day's reading/discussion). In addition, everyone in the course will be reading your writing, so you should spend as much effort as possible composing your writing there. **Please remember that a blog is public, so anything you post is visible to anyone on the web**

### **Blog Grading**

While I will be reading/assessing your blogs regularly, I will only be providing you with a cumulative grade at the end of the semester for your work. For the sake of our discussions, I will regularly designate certain blogs, which are particularly strong/successfully in various aspects, as "Featured Posts" which may be used as the starting point for in-class discussions, and blogs so designated will earn the author extra credit points.

### **Post Titles**

Make sure to title each blog with a concise, relevant title that clearly reflects the content you post. The blogs automatically provide your name and the date/time you post, so there is no need to put that in the subject line. A reader should be able to quickly glance at your blog title and have a general idea what your subject or focus will be.

### **Content**

Unless otherwise noted or provided with a specific prompt, your assigned weekly blogs are a response to that week's reading assignments texts. Some of the ways you can approach this material are:

Find a quote, passage, or idea from one of the texts that catches your attention, sounds provocative, raises questions, or confuses you. Provide the excerpt (properly cited, with quotation marks and page number in parentheses) and then build your blog around this material.

If we have several readings for the week, you don't need to blog on each one individually. Instead, you may choose to write a thoughtful, in-depth exploration of one text= which may or may not reference any of the others. Or you might want to synthesize your observations on several of them, making thematic connections among various texts.

Additionally, you can relate the texts to an outside source (another work of literature, a film, an image, a newspaper article). In this case, you should link to the material if possible (using the "link" button in the post editor). Also, clearly explain how/why it is related to or reflects on the assigned material. This use of outside information is acceptable and even encouraged, but do not become exclusively dependant on outside sources and interpretations; you should always make sure to ground your responses in the texts that we are reading through appropriate quotations and analysis of them.

**Eastern New Mexico University-Roswell**  
**ECON 1110**  
**Assignment**

**International Trade**

In your assigned teams, you will collaboratively develop a research paper on international trade which as we have seen in our class sessions is a complex subject with many ins and outs. Read the articles provided and your team can do more in depth research on the following topics:

- Tariffs
- NAFTA (also p.380 in the Survey of ECON text)
- Maquiladoras
- Large US corporations that have taken advantage of NAFTA and exercised the ability to use direct investment and build a manufacturing plant in Mexico.
- USMCA

Your team will need to answer the following questions. DO NOT number your submission and answer. Your submission should be in a paragraph format with the finished product resembling a typical research paper. There may be additional information that you want to include.

1. Introduce the reader to international trade.
2. Write a paragraph explaining tariffs. What is a tariff? How do tariffs affect trade?
3. Write a paragraph on NAFTA. What is it? What has it done for business in North America? (Note the 2 countries that the U.S.A. exports the highest quantity of goods and services to provided in Exhibit 18.1 in the text.) What has NAFTA done for Mexico and Canada?
4. Write a paragraph on maquiladoras. What are they? How have maquiladoras affected production/manufacturing in the United States of America? How have maquiladoras affected Mexico? Discuss benefits and drawbacks to the use of Maquiladoras.
5. Write a paragraph about a U.S. company that is using maquiladoras and the impact that it has had on the company. (Chevrolet, Ford, and Nabisco have received a lot of recent press over production in Mexico. Also, those enormous fan blades that you see on the highways are being produced in a maquiladora across the border at Santa Teresa, NM.)
6. Write a paragraph about USMCA. What is USMCA? How is it different from NAFTA? When will USMCA go into effect?
7. Write a conclusion that explains the consensus your team arrived at concerning the social and ethical implications of international trade in our Border Region and specifically dealing with the Maquiladoras.

**This should be a minimum of 2 pages long and you need to cite your sources using APA style. (Use parenthetical notation and a bibliography)!!**

**Eastern New Mexico University-Roswell**  
**ECON 1110**  
**Assignment**

**ECON 1110 Paper**

**FORMAT:** The essay should be typed in APA recommended 12 pt. Times New Roman or Calibri font. You may single space or double-space, depending on your preference.

Your team's paper will contain 3 parts:

1. Title Page
  - a. Your first and last names
  - b. Paper name
2. Body
  - a. Seven paragraphs described above and, on the RUBRIC,
3. References Page
  - a. You ARE required to site a minimum of two references in your paper, the textbook and at least 1 other source.
  - b. You may NOT use Wikipedia as a source; however, you can scroll to the bottom of a Wikipedia topic and find government (.gov) or educational (.edu) sites that were used when writing the Wikipedia piece and go to the original source for the material.
  - c. You may use an article, website, or book as your one additional source. (Again, you may not use Wikipedia.)
  - d. Use APA 6th Edition (See link in the Economic Impact Paper Assignment on Canvas) for parenthetical notation and your References page.
  - e. If you use material from any other source and do not site the material, you will not receive credit for the paper. (I.e., a grade of 0.) You will also receive a 0 if you submit a paper that contains the same wording as a fellow classmate. In other words, this paper is meant to be an original work created by YOU.

**SUBMISSION:** The file format for your paper must be Word (.doc or .docx). It is your responsibility to check the file name after you have attached your submission and verify that it is one of the three acceptable formats.

## COMM 102 Persuasive Speech Assignment

### Objective:

The purpose of this assignment is to persuade your audience to adopt/modify/change an attitude/belief/behavior. Choose a topic (any topic of your choice).

### Choosing a Topic:

You may choose any topic you wish. The goal is to persuade your audience. Be creative and remember Aristotle's Proofs: Logos, Ethos, and Pathos

### Requirements:

1. This is a five (5) minute speech. Points will be deducted for going over or under the assigned time. (See the grading rubric in your online course resources)
2. There are three things you'll turn in: An outline, a Resources page, and a slide presentation (Google slides, PowerPoint, any software you choose). This presentation must be saved and uploaded to the LMS in a PDF format.
3. Requirements for the outline:
  - a. Include: Topic, Thesis, Introduction, Body, Conclusion, and Transition Statements
  - b. Follow the template provided in your online course materials
  - c. Submit it in the online course allocated for the assignment
  - d. Include the 'Resources' page
4. Requirements for the 'Resources' page:
  - a. You will turn in an APA formatted reference page (See example in the online course sectioned for resources)
  - b. You must have at least two sources (one print, the other online)

## **Assignment / HIST 1160: Western Civilization II**

“Think Like A Historian” #3: Click on the link and view the video. Locate an online academic article about the assignment topic.

A. Submit to the instructor an assessment of your article’s validity by explaining how well its author does the following:

1. Do the citations include primary sources (i.e. sources produced by participants in the events being studied)?
2. Do the citations include other secondary sources (i.e. publications produced by other historians)?
3. Is the author’s interpretation convincing in relation to use of primary and secondary sources?

B. Write an essay which incorporates and cites the arguments presented in the videos and your chosen online article in which you answer these questions:

1. What natural factor caused the outbreak of the Irish Famine and what other social or political factors increased the tragedy of that outbreak?
2. What evidence is discovered through archaeological excavation and what does it reveal or clarify about the Irish Famine?
3. How did the famine affect Ireland in the short-term and long-term?

- Famine to Freedom: The Great Irish Journey: <https://www.youtube.com/watch?v=6jIVOgvZ6lg>

Objective: Through this exercise you demonstrate the ability to synthesize and assess multiple sources of information, and express that understanding in a single coherent statement in an attempt to convince to a single reader (i.e. the instructor) about the strength of your position. Your goal is to convince that reader about the relative significance of a particular social, political, military, or economic subject under discussion (in other words, to “think like a historian”).

How to Submit: Submit your completed answer in the box that appears when you click on the “type submission” link under the “assignment submission” portion of the assignment description. Please do not submit a saved document, as this creates too many potential “compatibility” problems between your preferred document format and the Blackboard system (which can only open documents saved in particular formats).

*Assignment Criteria:* The following criteria apply to your assignment answers.

Do not simply list the idea, event or development. Submit a fully developed thought in traditional essay structure (introduction, support, and conclusion) that explains why that idea, event or development is “more significant.”

You must develop the ability to support your position with factual material (not just unsupported personal opinion or “beliefs”). You will accomplish this through a detailed discussion of the specific characteristics that make your chosen subject “more significant” than the many other important

subjects discussed in these chapters. The use of “compare and contrast” is a good method to begin such an assignment.

All assignment answers must be expressed in civil and professional language. Any abusive or other inappropriate expressions will not be tolerated and will result in actions to be determined by the instructor (including potential administrative withdrawal from the course).

Each student will write their own response to the question listed above.

The use of non-academic, non-peer-reviewed websites is prohibited (forbidden). This applies especially to Wikipedia and similar sites which do not incorporate professional expert peer-review in their process (without such a process, you the reader cannot and should not trust or use anything you read on such websites).

To avoid any suggestion of plagiarism, be sure to properly cite page numbers from text (or any other source used to support your position) when using direct quotations or paraphrasing.

# An Elderly Anomaly: A Realistic Integration of ECG, CBC, and PCR in Healthcare

by

M. May Zhang and Maria E. Latta  
School of Pharmacy  
University of Connecticut, Storrs, CT

## Part I – Electrocardiogram

Chester Fitzgerald is a 67-year-old Caucasian male who has just suffered an ischemic stroke. The doctor puts him on an anticoagulant and orders an ECG while he waits for Chester to wake up.

*Table 1.* ECG results for patient compared to normal values.

	<i>Patient's Results<sup>1</sup></i>	<i>Normal Range<sup>2</sup></i>
Heart rate	82 bpm	60–100 bpm
QT	420 ms	420 ms
QRS	110 ms	<120 ms
P duration	140 ms	< 100 ms
P amplitude	2.5 mm	< 2.5 mm
PR	170 ms	120–200 ms

## Questions

1. Draw an ECG and label the following: P wave, Q wave, R wave, S wave, T wave, PR interval, QT interval, ST segment, QRS complex.
2. Describe what the P wave, T wave, PR interval, ST segment, and QRS complex indicate about the function of the heart.
3. How is Chester's ECG different from one that is normal? What are some possible causes of these differences?

## Part II – Complete Blood Count

When Chester awakens, he reports that he's been experiencing headaches, fatigue, and dizziness for the last few months. The doctor also notes that Chester is flushed and sweating despite the cool room, and that he has inflamed joints. Upon conducting the physical exam, the doctor discovers that Chester's spleen seems to be enlarged. Once the anticoagulants are out of Chester's system, a complete blood count is done to determine the cause of the splenomegaly.

Table 2. CBC results for patient compared to normal values.

<i>Tests</i>	<i>Result</i>	<i>Flag</i>	<i>Units</i>	<i>Reference<sup>3</sup></i>
WBC	12.9		$\times 10^3/\mu\text{l}$	4.4–11.3
RBC	6.7		$\times 10^6/\mu\text{l}$	4.50–5.90
Hemoglobin	20.8		g/dL	14.0–17.5
Hematocrit	63.4		%	41.5–50.4
MCV	84		fL	80.0–96.0
MCH	31.2		pg	27.5–33.2
MCHC	34.3		g/dL	33.4–35.5
RDW	13.6		%	11.7–18.0
Platelets	518		$\times 10^3/\mu\text{l}$	150–450

### Questions

1. In the CBC column labeled “Flag,” mark the test results that are out of the reference range.
2. Based on the CBC results, how would you expect Chester's blood smear to differ from a normal blood smear? Explain your answer.
3. What condition would you diagnose Chester with?
4. What could have caused this condition?
5. The lab also performed an EPO test to check erythropoietin levels in the blood. The report indicates that Chester's erythropoietin levels are low. What is erythropoietin and why are these results surprising?



## Part III – Genetic Test

The doctor suspects that Chester is suffering from polycythemia vera, a blood cancer caused by a genetic mutation that results in overproduction of blood cells. This leads to thickening of the blood, causing many of the symptoms Chester's experienced. The doctor orders a genetic test to confirm the diagnosis.

Table 3. PCR gene sequence results<sup>4</sup> of *JAK2* T108A.

<i>Patient:</i>	G A G T C A G C C A G G C A T
<i>Normal:</i>	G A G T C A A C C A G G C A T

### Questions

1. Describe the steps of PCR.
2. What type of mutation is shown by the patient's PCR sequence of the coding strand of the *JAK2* gene?
3. The *JAK2* gene is a proto-oncogene that codes for a tyrosine kinase. Patients, like Chester, with polycythemia vera have a mutated *JAK2* gene. In these patients, would you expect to see a gain-of-function or loss-of-function mutation?

## Conclusion

After the diagnosis is confirmed, the treatment process begins. Chester is scheduled for regular phlebotomies, a bloodletting process that will help thin his blood. He's also ordered to hydrate well and is prescribed low-dose aspirin to reduce blood clotting and prevent further strokes. Chester takes well to the treatment, and is soon released from the hospital.



## Data Sources

- [1] Kayrak, M. *et al.* 2012. Electrocardiographic findings in patients with polycythemia vera. *International Journal of Medical Sciences* 9(1): 93–102. doi: 10.7150/ijms.9.93. <<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3245418/>>.
- [2] Jenkins, D. and S. Gerre. *n.d.* Normal ECG [webpage]. *ECG Library*. <<https://ecglibrary.com/norm.php>>.
- [3] Garner, K. and R. Felgar. *n.d.* Case 705: a 49-year-old male with tooth pain (CP-1011) [webpage]. UPMC Department of Pathology. <<http://path.upmc.edu/cases/case705.html>>.
- [4] Lanikova, L., *et al.* 2016. Coexistence of gain-of-function *JAK2* germ line mutations with *JAK2*<sup>V617F</sup> in polycythemia vera *Blood* 128(18): 2266–70. doi: 10.1182/blood-2016-04-711283. <<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5095759/>>.

**Eastern New Mexico University-Roswell**  
**ECON 2110 Macroeconomics**  
**Assessment**

**Critical Thinking Exercise and Communications**

Real GDP Versus Nominal GDP

The economy of Togo has been experiencing the circumstances shown in the table below over the past five years. Public officials have indicated that they are confident they are doing a good job regarding the economy since nominal GDP has been growing during these five years.

<i>Year</i>	<i>Total Output (Final product quantity)</i>	<i>Cost of Basket in 000's (price at which output is valued)</i>
2016 (Base Year),	80,000	10
2016	80,000	12
2017	100,000	12
2018	140,000	12
2019	120,000	16
2020	120,000	17

***Instructions.***

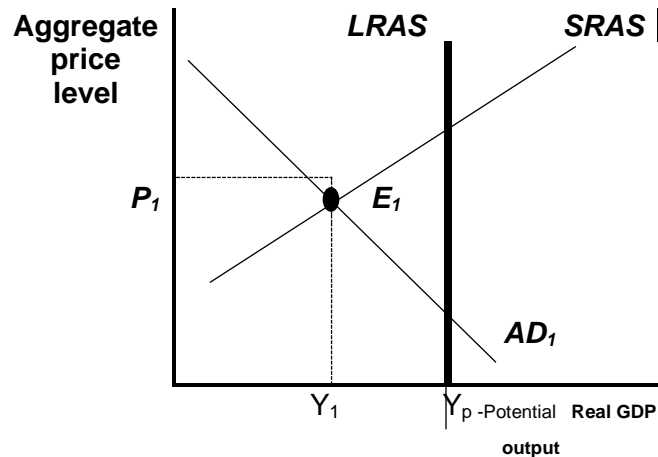
Given the scenario above, answer the questions listed on below. Provide your answers in a report that should not exceed two pages in length. Please double space your paper using Times New Romans 12-point font, and one-inch margins.

***Critical Thinking Questions.***

1. Define Nominal GDP and Real GDP.
2. Identify the possible problem with the statement that the public officials have made.
3. Demonstrate that you have a deeper understanding of Nominal GDP and Real GDP by calculating Nominal and Real GDP given the data in the table above. Show your calculations.
4. List the differences in the values of Nominal GDP and Real GDP for the economy of Togo between 2016 and 2020. Also indicate the year in which Real GDP was highest.
5. Based on your answer in question No. 4, assess whether the region is improving and state why or why not.
6. Can the region be said to be improving solely by looking at GDP performance? Discuss any relevant elements of the broader well-being the region may or may not be enjoying.
7. Re-examine the statement of the public officials given your response for questions 1 through 6 and provide a concluding comment on the state of this economy.

## Personal and Social Responsibility on Fiscal Policy

The accompanying diagram shows the current macroeconomic situation for the economy of Albernia. You have been hired as an economic consultant to help the economy move to potential output,  $Y_p$ .



- Is Albernia facing a recessionary or inflationary gap?
- Which type of fiscal policy-expansionary or contractionary-would move the economy of Albernia to potential output,  $Y_p$ ? What are some examples of such policies?
- Illustrate the macroeconomic situation in Albernia with a diagram after the successful fiscal policy has been implemented.

## **Art and Identity Essay Assignment**

### *Learning Objectives:*

*For students to gain insight in to how media, techniques, elements, principles and symbols in artworks come together to create the content or meaning in the work and to explore how identity is expressed and critiqued within the art world.*

Your research should explore the approved artwork found in LMS. This artwork should be examine through the use of media and techniques, the elements and principles of design used, and socio-culture symbols. Address specifically how the things mentioned above express identity in the work selected.

### **Pre-Paper Research**

1. Choose two of the approved artworks in LMS to compare
2. Use Venn diagrams or chart found in LMS to outline the similarities and differences in the works
3. Formulate your Thesis Statement

### **Research Paper**

- 2-3 pages (not including header information)
- 12 point font
- Double spaced
- 1 inch margins
- Formatting in Chicago Manual Style

## **Group Comparative Paper**

*Learning Objectives: For students to work and communicated successfully in a group setting to quantify similarities between artworks including their media, and content or use of identity.*

The group comparative paper should address the media of your works, the formal elements of the work and content of your artworks. This paper should also address the different ways in which the artworks content functions socially and/or culturally. The paper should be written in scholarly tone using Chicago Manual Style for citations. Each group member must turn in a copy of the group comparative paper with an additional paragraph stating your personal reflection.

### **Group Discussions**

1. Read all of the group member's papers by accessing them in LMS.
2. As a group come together to discuss and make notes about your papers and art objects
3. Specifically discuss the following:
  - a. Compare the cultures and artists who from which the works come
  - b. Compare the time periods the pieces were made in and how that relates to their depiction of identity
  - c. Compare how the mediums are used to best express the contexts (identity) of the works of art, does one medium seem to work better than another, do two media equally express the same message, ect.
  - d. Explore how elements and principles of design are used within the artworks to further communicate the specific identities being portrayed in the works and if any works uses similar strategies
4. Through your discussion and notes, write a group paper addressing these issues

### **Personal Reflection Paragraph**

You should address the following questions in your personal reflection:

- Why is identity important to a culture or society?
- Considering the cultures researched by your group, how does the use of Identity vary in the work? Do any of the artists looked at in the group discuss identity in the same way?
- How has the way the artists explored identity shaped or reshaped your worldview compared to your group's cultural research?
- Do you feel the artists the group has looked at have a civic responsibility within the community?

### **Group Comparative Paper and Personal Reflection**

- 1 – 2 pages
- 12 point font
- Double spaced
- 1 inch margins
- Formatting in Chicago Manual Style

**The day the assignment is due, you will fill out a Team Assessment**

<b>Sample Rubric</b>				
	Novice (1)	Emerging (2)	Developing (3)	Proficient (4)
<b>Communication</b>				
Written work is appropriate for audience, intent, and context				
Group communication is appropriate for interpersonal communication, intent and context				
<b>Critical Thinking</b>				
Formulation of a Thesis statement				
Relevant information is identified to address the Thesis statement				
Acquisition of evidence and evaluation of evidence				
Response develops to a conclusion that reflects an informed argument				
<b>Personal and Social Responsibility</b>				
Small groups complete group essay to include a variety of social and cultural relationships				
Evaluation of personal and social justice issues are relative to the context in which they are being used				
Evidence is based on organizational, cultural, economic, biographical or political factors of local or global problems				
Compares multiple ways in which artists have addressed a problem				

## Assignment / POLS 1120: American National Government

Your task for this week!

Reply to THREE other students. **Use ONE POST for all questions.**

Discussion Post #1:

We are very aware of the civil rights issues in our country like Black Lives Matters, LGBTQ movement, and immigration. In hope that we continue to expand our viewpoint, we will take another issue that we might be unfamiliar with.

-Familiarize yourself with the Standing Rock protest related to the Dakota Access Pipeline circa 2016.

-Offer some reasons they protested and how it would have impacted their reservation. Which civil liberties (Bill of Rights) might have been violated. Was the government justified by their actions? What was the result(s) of the conflict? Lastly, what was the American Civil Liberties Union (ACLU) stance on the conflict.

These replies should be thoughtful, meaningful and respectful. Follow the DISCUSSION POST EXAMPLE in your COURSE WORK

Take Week 4 Quiz.

All assignments are open for one week. Please let me know as soon as possible if you do not have your book yet.

rv

Taken from Post Discussion Week 8

Your task for this week!

Read Chapter 8.

Reply to THREE other students. **Use ONE POST for all questions.**

Discussion Post #1: Are the media biased? Should we trust them and to what extent?

Discussion Post #2: How can the media shape Americans' political understandings? if so, in what way?

Discussion Post #3: Should the media be regulated? Why or why not?

These replies should be thoughtful, meaningful and respectful. Follow the DISCUSSION POST EXAMPLE in your COURSE WORK

Take Week 8 Quiz.





## **Assignment / HUMN 2110: Intro to World Humanities II**

### RESEARCH PAPER ASSIGNMENT – TWO PARTS

#### Assignment:

You will be required to write a 4-page research paper for this course – please follow the format I have needed for the response paper (TNR, 12pt font, black, double-spaced). You will need to formulate an original thesis statement for your paper. This is not simply a research paper over a person, place, or piece—the research paper where you create the topic based on the information learned from the text. Creating an original argument requires you to develop a unique paper idea that has not been used before. Some examples have been provided below (please do not copy the examples).

You will turn in an outline/rough bibliography in advance of the paper due date – see blackboard assignments. It will be worth 40 points of the total 160 points available. The paper is worth 120 points. Without the bibliography, the highest grade you can make on the research paper assignment is a 75. I recommend using a sentence-style outline – this will help you keep your information organized and prevent you from waiting until the last minute. If I see an outline/idea that isn't an original argument, I will let you know.

#### Sources:

You must have at least 5 (five) sources to support your research in this assignment. 1 (one) source will be your textbook; only two (2) internet sources are allowed; the rest is up to you (journal, article, magazine, newspaper, book, etc.). You can use MLA formatting OR APA formatting for this paper (whichever area you use more depending on your major). You can have more sources, but not less. If you have more than two internet sources, you still have to have a minimum of three other types of sources.

To avoid any plagiarism, you will be required to use in-text citations. If you do not know how to create in-text citations, you will need to research it (it is different for MLA than APA). In-text citations, let me know where and from whom you retrieved your information. Without them, it appears that all the information in the paper is yours, and if I find that information elsewhere, it will be considered plagiarism; you will receive a zero on the assignment.

You will include an official work cited page (MLA or APA) at the end of your assignment. The BIB/CITED PAGE DOES NOT COUNT AS ONE OF THE REQUIRED FOUR PAGES. Altogether, the paper + work cited page will be five pages. If you are unsure what in-text citation is or looks like, or what a work cited page is, please visit [www.dianahacker.com](http://www.dianahacker.com) OR [www.owl.english.purdue.edu](http://www.owl.english.purdue.edu). You can also visit [www.sonofcitationmachine.net](http://www.sonofcitationmachine.net) to assist you.

Also, you CANNOT use Wikipedia as a source. This is not a viable source of information. If you use Wikipedia, I will not accept your paper.

So what exactly is an "original argument/thesis?" I am looking for such a thesis that shows you are attempting to draw conclusions based on the research at hand. An original argument is an argument that is all yours, something you came up with. This is different than simply researching one thing and gathering all the information about that one thing. An original argument ties together information and creates a unique statement about the information.

For example:

Wrong: "The Catholic Church exists today all across America and the world." (This doesn't seem right because it is not an original idea. Everyone knows this already.)

Correct: "The Catholic Church's influence has created division among Christian-based organizations regarding the interpretation of communion" (Then use research to support that statement!) How did it do that? What sources do you have that supports your idea? If you can't find any references to help your idea, then perhaps you need a different view.

Other Examples of Original Arguments/Thesis:

- Egyptian art and religion helped shape the western world's understanding of Christianity (or Islam).
- Medieval religious doctrine helped the spread of theatre through the dark ages.
- Totalitarianism through the ages has sparked the development of democracy.
- The Oath of Horatii is a parable for any conflict the student chooses.

**COMM 2120: Interpersonal Communication**  
**Video/Oral Presentation**  
**100 Points**

An Oral/Video presentation is required at week thirteen. Students are to choose from one of the topics discussed in the weekly forums.

A three-page manuscript is to be submitted on your chosen topic/theory. The font will be 12 point in Times New Roman, double spaced. The paper may be longer than three pages but must not exceed five pages.

An outline is to be included with your manuscript followed by a 'Resources' page formatted correctly, American Psychological Association (APA). The outline will be graded on format and content. It must include:

Topic:

Thesis:

Introduction:

Body:

Conclusion:

Place Transition Statements between the intro and the conclusion. Include Transition Statements between each point)

The oral presentation may be completed in class or online. Slides or an object must be included in your presentation (you may choose). Please review the grading rubric for 'Oral Presentations' to become familiar with the expectations and grading requirements. Students are to produce sound arguments and frame the ideas in a logical manner.

This paper is to be written in a scholarly manner. At least two 'Resources' must be utilized and cited within the paper. The 'Resources' must include digital and print media.

*Rubrics will be used to assess individual character performances to evaluate if the acting skills have been learned and how well they're utilized in performances. Creating low-stakes assessments and giving immediate, positive feedback helps students to directly experience successful developments of the skills they learned which in turn promotes a "growth" mindset that supports internal motivation*

## **THEA 1210 Introduction to Acting - NMT**

# **CHARACTER PERFORMANCE RUBRIC**

**Name:** \_\_\_\_\_

**Class:** \_\_\_\_\_

<b>Criteria</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>TOTAL</b>
<b>VOICE</b>	Voice was loud and clear; words were easily understood	Student spoke clearly but it was difficult to understand some of the script; could've been louder.	Voice and language was not very clear; could've been much louder.	Could not understand what was being said due to unclear and low speech.	
<b>AUDIENCE</b>	Audience felt like part of the show.	Was aware and well-connected to the audience.	Needed more audience awareness and connection.	No audience awareness or connection at all.	
<b>BLOCKING</b>	Good use of stage and movement – did not turn back to audience	Almost used entire stage – turned away from audience only once or twice.	Could have used more of the stage; must concentrate on facing forward.	Needed more blocking – always face audience and use the stage!	
<b>SCRIPT/ PURPOSE</b> (When applicable)	Enticing vivid detail used in script/dialogue; evident reasons for the performance.	Script/dialogue was well-written; considerable detail with good purpose.	Some detail used in script/dialogue; needed more of a purpose.	Script/dialogue contained no purpose and very little detail.	
<b>MEMORIZATION/ IMPROVISATION</b> (When applicable)	Script was fully memorized; student improvised in place of lines.	Script was almost fully memorized- some improv used to make up for missed lines.	Script was partially memorized; student did not attempt improvisation.	Script was not at all memorized; no improvisation used.	
<b>FACIAL EXPRESSION/ BODY LANGUAGE</b>	Great use of gestures, facial expression and body movement!	Contained some facial expression, gestures & body movement.	Needed more facial expressions gestures & movement.	Contained little to no facial expression, gesture or movement.	
<b>OVERALL</b>	Committed, cooperated & concentrated- WOW!	Semi-committed, concentrated & cooperative- GREAT!	Almost committed, cooperative & concentrated- NOT TOO BAD...	No commitment, cooperation or concentration MORE REHEARSAL!	

***Final Grade:***

***Additional Comments:*** \_\_\_\_\_

---



---

*Following is a sample Formative Assessment:*

Read the last paragraph on page 463 and the first half of page 464 “The Emergence of Gay and Lesbian Subcultures,” Write your initial discussion post and respond to at least one other student’s original post by Midnight on Sunday. *(Subaltern History, or the study of subcultures and the minority groups, has grown since the 1960s and is not expected from Historians almost as much as the “Great Man” history we are so used to. Like many subjects in the story of history, this one is polemic. Regardless of your beliefs on the subject, I expect you to remain professional and courteous.)*

Your initial post should contain the following:

- 1) In the first paragraph (of at least 4 sentences) Briefly describe the emergence of Gay and Lesbian Subculture in New York and other large cities in the late 1800s. Explain how the behavior went from being mostly ignored to becoming stigmatized by society.
  
- 2) In the second paragraph (of at least 4 sentences) discuss the following: Were you more surprised to see this information being studied as a part of History or that people were openly gay and lesbian in the 1800s? Tell us about another minority group that you feel needs Historical coverage that doesn’t receive it.

## Sample Assessment Questions for Math 1512

Could be given as a discussion prompt, homework question or on an exam

1. Find the following limits:

a)  $\lim_{x \rightarrow 3} \frac{x^2 - 6x + 27}{x - 3}$

b)  $\lim_{x \rightarrow \infty} \frac{3x^2}{x^2 + 3}$

2. Which of the following statements are correct? (Select all that are correct.)

- a. The derivative of a sum is the sum of the derivatives.
- b. The derivative of a difference is the difference of the derivatives.
- c. The derivative of a product is the product of the derivatives.
- d. The derivative of a quotient is the quotient of the derivatives.
- e. The derivative of a constant  $k$  is  $k$ .
- f. The derivative of a constant times a function is the same as the constant times the derivative of the function.
- g. The derivative of a power is the power of the derivative.

3. Use the limit definition of the derivative  $f'(x) = \lim_{h \rightarrow 0} \frac{f(x+h) - f(x)}{h}$  to calculate the derivative of  $f(x) = x^2 - 2x + 1$

4. Find the first derivative with respect to  $x$  of the following functions:

a)  $f(x) = \frac{x^5}{4} + \frac{6}{x^2} + \sqrt[3]{x} + \pi$

b) Use the product rule:  $f(x) = (x+3)^3(3x-5)^6$

c) Use the quotient rule:  $f(x) = \frac{3x^2 - 5x}{x^3 + 4}$

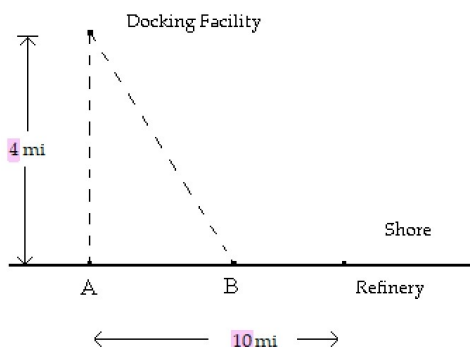
d) Use implicit differentiation:  $x^2 + y^2 = 25$

5. Find the equation of the tangent line to  $x^2 + 2y = 7$  at  $(1, 3)$ .
6. For the following function  $f(x) = x^{1/3}(x - 4)$ 
  - a) Find all local and/or absolute values of the function.
  - b) Determine the location of any inflection points.
7. Solve the initial value problem  $\frac{dy}{dx} = \frac{1}{x^2} + x$  with  $y(2) = 1$
8. Solve the initial value problem  $y' = 2x - \frac{3}{x^4}$  with  $y(1) = 3$
9. It takes 12 hours to drain a storage tank by opening a valve at the bottom. The depth  $y$  of the fluid in the tank  $t$  hours after the valve is opened is given by:
 
$$y = 6\left(1 - \frac{t}{12}\right)^2 \text{ meters}$$
  - a) Find the rate  $y'$  at which the tank is draining at time  $t$ .
  - b) When is the fluid level in the tank falling fastest? Slowest?  
What are the values of the rates at those times
10. A rectangular field is to be enclosed on four sides with a fence. Fencing costs \$4 per foot for two opposite sides, and \$7 per foot for the other two sides. Find the dimensions of the field of area  $740 \text{ ft}^2$  that would be the cheapest to enclose.
11. Find the dimensions of a circular cylindrical can with an open top that minimizes the total surface area and that holds a volume of  $350 \text{ cm}^3$ .
12. Electrical systems are described by Ohm's law, which states that  $V = IR$ , where  $V$  = voltage,  $I$  = current, and  $R$  = resistance. If the current in an electrical system is decreasing at a rate of  $7 \text{ A/s}$  while the voltage remains constant at  $12 \text{ V}$ , at what rate is the resistance increasing (in  $\Omega/\text{sec}$ ) when the current is  $20 \text{ A}$ ? (Do not round your answer.)
13. Give a short explanation why the following approximation is valid:

$$\sqrt{4.02} \approx 2 + \frac{1}{4}(0.02)$$



14. Supertankers off-load oil at a docking facility shore point 4 mi offshore. The nearest refinery is 10 mi east of the docking facility. A pipeline must be constructed connecting the docking facility with the refinery. The pipeline costs \$300,000 per mile if constructed underwater and \$200,000 per mile if over land.



Locate point B to minimize the cost of construction.

15. Evaluate the integral  $\int_1^3 (x^2 - x + 2) dx$

- a) using a left-sided and a right-sided Riemann sum of eight rectangles.  
Complete the table below.

x	$x^2 - x + 2$ left	$x^2 - x + 2$ right
1		
1.25		
1.5		
1.75		
2		
2.25		
2.5		
2.75		
3		

- b) evaluating the integral exactly. Compare the results.

16. Find the following indefinite or definite integrals:

a)  $\int (x^3 + \frac{3}{x^2}) dx$

b)  $\int (\sec^2 \theta - \sin \theta) d\theta$

c)  $\int_2^5 (3x - 5) dx$

d)  $\int_0^{\pi/2} (2t - \cos t) dt$

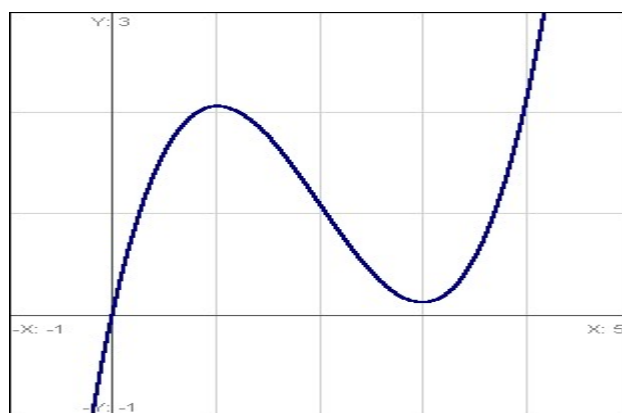
17. Evaluate the following integrals

a)  $\int_0^{\frac{\pi}{2}} \frac{d}{dx} [\sin(x)\cos(2x)] dx$

b)  $\frac{d}{dx} \int_0^x [\sin(t)\cos(2t)] dt$

c)  $\frac{d}{dx} \int_0^{\pi/2} [\sin(x)\cos(2x)] dx$

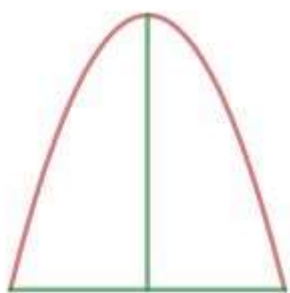
18. a) For the graph given below, on what intervals is the first derivative positive? Explain briefly.



b) On what intervals is the second derivative negative? Briefly explain.

c) What are the approximate values of any inflection points, if any? Briefly explain.

19. Archimedes showed that the area of a parabolic arch is equal to  $\frac{2}{3}$  the product of the base and the height of the arch.



a) Use the parabolic arch bounded by  $y = 9 - x^2$  and the x-axis to determine the area under the arch.

b) Find the base and height of the arch and verify Archimedes formula

## Calculus Project: Finding the Zero of a Polynomial

Consider the polynomial:

$$P(x) = x^3 + x^2 + x - 1$$

Your goal is to find a zero of this polynomial, i.e. a number  $a$  such that  $P(a) = 0$ . Although there are algebraic techniques for finding zeros of cubic polynomials, we are going to find an approximate zero of this polynomial accurate to 0.01 of the actual zero.

To begin, show that the equation  $P(x) = 0$  has at least one solution in the interval  $[0,1]$ .  
Hint: compare  $P(0)$  and  $P(1)$ . What does this information tell you?

One way to approximate a solution is to bisect the interval  $[0,1]$  and determine if  $P(x)$  has a solution in  $[0,0.5]$  or  $[0.5,1]$ , as you did in the previous step. Repeat this step as many times as necessary until you get an answer to  $P(x) = 0$  that is accurate to 0.01 or better. Note that this means successive  $x$  values to the zero of the polynomial should be less than 0.01.

Calculus gives us another method to solve this problem, using the idea that the tangent line is a good approximation to the graph of a function at least close to a particular point.

Definition: the line tangent to the curve with the equation  $y = f(x)$ , at a point  $(a, f(a))$  on the curve is the line through  $(a, f(a))$  with slope  $f'(a)$ . We call this line a tangent line.

Let  $y = f(x)$ . What is the equation of the line tangent to the graph of  $f$  at  $(a, f(a))$ ? What is the  $x$ -intercept of this line? Draw a picture to demonstrate what is going on.

Now go back to the original polynomial. Use  $x=1$  to obtain the zero of the tangent line to  $P(x)$ . The  $x$ -intercept of the tangent line provides an approximate guess to the zero of the polynomial. Is the answer in the margin of error from the answer obtained from the bisection method? If not, repeat this operation, beginning with the current answer as your next guess for the zero of the polynomial.

Compare the two methods for finding a solution to the zero of a function. Which is easier to understand? Why?

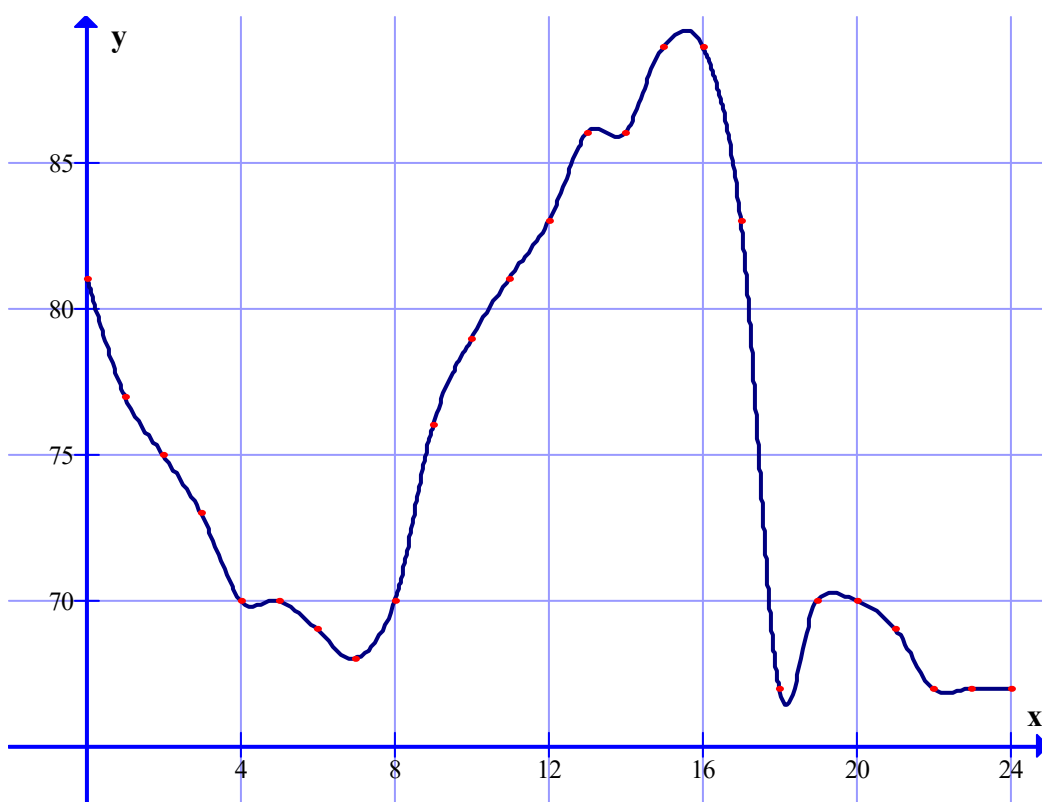
Which is faster to find? That is, which leads to an answer within the desired accuracy in the fewest number of iterations.

# Calculus Project: Riemann Sums, Integrals, and Average Values

## Part 1: Average Temperature

When we say, "The average temperature today was 60 degrees," we clearly intend the single number 60 to represent the entire range of temperatures for the day. It is not so clear, however, how this number is to be computed. If we have a finite sample of temperatures, we can simply compute their average. For example, from the table of hourly temperatures (see Figure 1) in Des Moines, Iowa, on June 10, 1990, we can compute the average temperature by adding the 24 numbers and dividing by 24.

X	Y
0	81
1	77
2	75
3	73
4	70
5	70
6	69
7	68
8	70
9	76
10	79
11	81
12	83
13	86
14	86
15	89
16	89
17	83
18	67
19	70
20	70
21	69
22	67
23	67
24	67



1. Compute this average. How would you compute the average temperature if the temperatures were recorded every half-hour instead of every hour? Explain why this average will usually not be the same as the average of the hourly temperatures.

Our intuition suggests that measuring the temperature more often should lead to a better estimate of the average temperature. So let's take this idea to the limit. Suppose the temperature at time  $t$  in hours ( $0 \leq t \leq 24$ ) is  $T = f(t)$  in degrees Fahrenheit. (See the graph in the figure.) If the

temperature is measured  $n$  times in 24 hours, say at times  $t_1, t_2, \dots, t_n$ , the average of these temperatures is

$$\frac{1}{n} \sum_{i=1}^n f(t_i).$$

Suppose the times  $t_i$  are equally spaced so that  $t_i - t_{i-1} = \Delta t_i = 24/n$ . Then

$$\frac{1}{n} \sum_{i=1}^n f(t_i) = \frac{1}{24} \sum_{i=1}^n f(t_i) \Delta t_i \quad (\text{Equation 1})$$

which has the form of a Riemann sum multiplied by  $1/24$ .

2. The graph in Figure 1 represents the temperature function  $f$  whose values at each hour are exactly the temperatures in the table. Use the graph to compute the Riemann sum of  $f(t)$  with  $n = 6$  and  $f$  evaluated at right endpoints of subintervals. Then multiply by  $1/24$ . (The answer should be close to, but not equal to, your answer in step 1.) If you had used  $n = 24$  instead of  $n = 6$ , you would have gotten exactly the answer in step 1; explain why.
3. Give a careful argument to explain why

$$\frac{1}{24} \int_0^{24} f(t) dt$$

should be the true average temperature over the 24-hour time period. Use Riemann sums and limits in your argument.

This group of questions addressed a special case of the more general concept of the average of a function. More formally, average of a function  $f(x)$  on the interval  $[a, b]$  is defined as

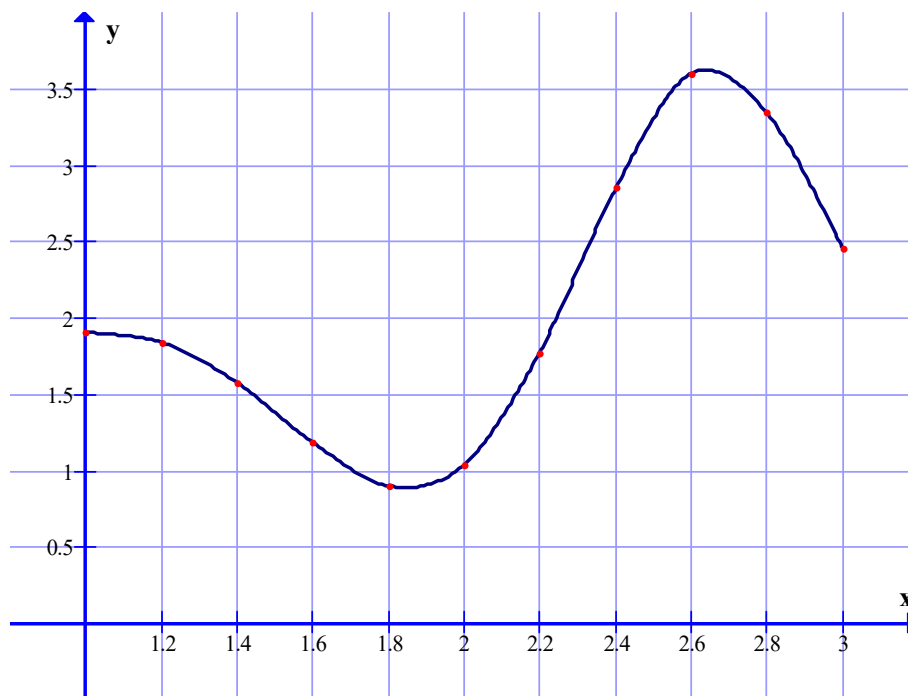
$$\frac{1}{b-a} \int_a^b f(x) dx \quad (\text{Equation 2})$$

The next part of this lab applies this idea of functional average within a second context.

## Part 2: Velocity and Distance

4. Approximate the distance traveled and the average velocity of an object whose velocity function is described by the table in Figure 2.

t	v(t)
1	1.909
1.2	1.845
1.4	1.581
1.6	1.194
1.8	0.910
2	1.041
2.2	1.771
2.4	2.859
2.6	3.596
2.8	3.352
3	2.456



5. Suppose you are given the velocity  $v(t)$  of an object at all times  $t$ , where  $a \leq t \leq b$ . Assume  $v(t) \geq 0$  for all  $t$ . Use Riemann sums and limits, as in Part 1 to derive a formula for the distance traveled. Explain and justify your derivation. Also describe how the concepts of distance and area are related. (This should follow from your derivation.)
6. Paralleling the definition of the average value of a function in equation (2), the average velocity is

$$\frac{1}{b-a} \int_a^b v(t) dt.$$

Use the formula you derived in step 5 to explain why average velocity is also equal to  $\Delta s / \Delta t$  (change in position divided by change in time).

## Work to Turn In

- Commentary for steps 1, 2, 3, 4, 5, and 6.
- Computations for steps 1, 2, 4, and 5.

## Assessment Investigating Life: The Angelina Jolie Effect.

When Angelina Jolie learned that she had a mutation in the breast cancer gene, she had both breasts removed to reduce the chance of getting breast cancer.

### Instructions:

Use your knowledge of gene mutations and molecular medicine, and its impact on human health to answer the questions. Include correct scientific terms, and support your answer with 1 example for full-credit.

30 pts Total

10 pts each

1. What is the breast cancer gene, and how does a mutation in the gene increase an individual's risk of developing cancer? (Answer: The *BRCA1* gene is a tumor suppressor gene. A mutation in the *BRCA1* gene may result in decreased production of the gene's protein, BRCA1. With less BRCA1 protein available, the risk of developing a tumor is increased.)
2. Are there human services "risks" associated with DNA testing for cancer? (Answer: Yes! Health insurers may use an individual's DNA genetic test, as a basis to deny health insurance coverage, or to justify increasing the cost of insurance. For example, a mutation in BRCA1, may be used as proof or evidence of a pre-existing condition, or an increased risk for developing breast cancer. Subsequently, an individual would pay a higher premium, or endure financial hardship as a result of out-of-pocket medical expenses (for diagnostic tests, chemotherapy, drugs.)
3. Is it "ethical" for a woman to remove her breasts (mastectomy) based on the *probability* of developing breast cancer? Are there other factors that should be included in her decision? (Answer: The disease should be a personal choice. Historically, government has tried and failed to legislate the "ethical" control of a woman's body (i.e. Roe vs Wade right to abortion decision). Other factors involved in the decision, could include: family history (risk) of developing breast cancer, the individual's current health, psychological state (worry about the *possibility of cancer*), and perhaps religious beliefs.

# 7

## Matter and Minerals

Randa Harris

### 7.1 INTRODUCTION

Have you used a mineral yet today? While many people may initially say no, answer these questions: Have you brushed your teeth? Have you eaten anything that might contain salt? Did you put on make-up this morning, or do you have painted fingernails or toenails? Have you used a cellphone? What about a car, bike, or public transportation? If you have done any of those things, you have used at least one mineral, and in many cases you have used a great number of minerals. Minerals are very useful and common in everyday products, but most people do not even realize it.

A **mineral** is defined as a naturally occurring, inorganic solid with a definite chemical composition and a characteristic crystalline structure. Let's break that definition down. By naturally occurring, it means that anything man has created, like the beautiful synthetic bismuth in Figure 7.1, does not count as a mineral. To be an inorganic solid, the mineral must not be composed of the complex carbon molecules that are characteristic of life and must be in the solid state, rather than vapor or liquid. This means that water, a liquid, is not a mineral, while ice, a solid, would be (as long as it is not man-made). A definite chemical composition refers to the chemical formula of a mineral. For most minerals, this does not vary (ex. halite is  $\text{Na-Cl}$ ), though some minerals have a range of compositions, since one element can substitute for another of similar size and charge (ex. olivine is  $(\text{Mg,Fe})_2\text{SiO}_4$ , and its magnesium and iron content can vary). The atoms within minerals are lined up in an orderly fashion, so that the characteristic crystalline structure is just an outward manifestation of the internal atomic arrangement.



**Figure 7.1** | Synthetic bismuth

**Author:** Philippe Giabbanelli

**Source:** Wikimedia Commons

**License:** CC BY-SA 3.0



Minerals are not only important for their many uses, but also as the building blocks of rocks. In this lab, you will lay the foundation for all the future rock labs in the course. Correct mineral identification is critical in geology, so work through this lab carefully. There are several thousand minerals, but we will focus on only eighteen of the most common ones.

### 7.1.1 Learning Outcomes

After completing this chapter, you should be able to:

- Know the definition of a mineral
- Understand the many different physical properties of minerals, and how to apply them to mineral identification
- Be able to distinguish mineral cleavage from mineral fracture
- Identify 18 minerals

### 7.1.2 Key Terms

- |                |                    |
|----------------|--------------------|
| • Cleavage     | • Mineral          |
| • Crystal Form | • Specific Gravity |
| • Fracture     | • Streak           |
| • Hardness     | • Tenacity         |
| • Luster       |                    |

## 7.2 PHYSICAL PROPERTIES

Identifying a mineral is a little like playing detective. Minerals are identified by their physical properties. For example, look at Figure 7.2. How would you describe it? You may say that it is shiny, gold, and has a particular shape. Each of these descriptions is actually a physical property (shiny=luster, gold=color, shape=crystal form). Physical properties can vary within the same minerals, so caution should be applied. For example, color is a property that is not a very realistic diagnostic tool in many cases. Quartz is a mineral that comes in a variety of colors, as evidenced by Figure 7.3. Occasionally color can be helpful, as in the case of the mineral olivine. Olivine is said to be “olive green” (a light to dark green)



**Figure 7.2 |** Describe this mineral.

**Author:** Randa Harris

**Source:** Original Work

**License:** CC BY-SA 3.0



**Figure 7.3** | Examples of the different varieties of quartz (jasper, rose quartz, smoky quartz, agate, amethyst, citrine, and petrified wood), demonstrating the difficulty of identifying this mineral.

**Author:** Randa Harris

**Source:** Original Work

**License:** CC BY-SA 3.0



**Figure 7.4** | The mineral olivine is "olive green."

**Author:** Randa Harris

**Source:** Original Work

**License:** CC BY-SA 3.0

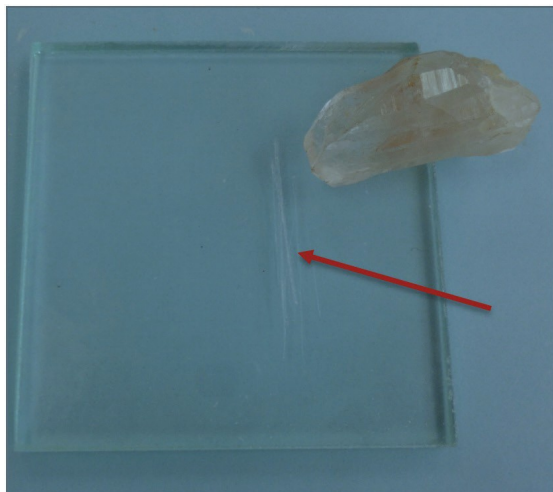
as seen in Figure 7.4. Make sure you use caution when using color to help identify minerals. We will cover each of the physical properties in detail to help you identify the minerals.

### 7.2.1 Hardness

**Hardness** refers to the resistance of a mineral to being scratched by a different mineral or other material and is a product of the strength of the bonds between the atoms of a mineral. Whatever substance does the scratching is harder; the item scratched is softer. Hardness is based off a scale of 1 to 10 created by a mineralogist named Friedrich Mohs (Figure 7.5). Mohs' scale lists ten minerals in order of relative hardness. Each mineral on the scale can scratch a mineral of lower number. Your mineral kit comes with several items of a known hardness. The glass plate has a hardness of 5.5, the iron nail has a hardness of 4, the copper wire has a hardness of 3, and your fingernail has a hardness of 2.5. If you can scratch a mineral, then it would be softer than your fingernail, so therefore its hardness would be  $<2.5$ . When trying to scratch a surface, use force, but be cautious with the glass plate. **ALWAYS lay the glass plate on a flat surface rather than holding it in your hand in case it breaks.** Do not confuse mineral powder with a scratch – use your finger to feel for a groove created by a scratch (mineral powder is left behind when a soft mineral scratches a harder surface). Materials of similar hardness have difficulty scratching each other, so that, for example, your fingernail may not be able to always scratch biotite mica, which has a hardness of 2.5.

Number	Mineral	Hardness of Test Kit Items
1	Talc	(softest mineral)
2	Gypsum	2.5 – Fingernail
3	Calcite	3 – Copper Wire
4	Fluorite	4 – Nail
5	Apatite	5.5 – Glass Plate
6	Orthoclase Feldspar	
7	Quartz	
8	Topaz	
9	Corundum	
10	Diamond	(hardest mineral)

**Figure 7.5** | Mohs' Scale of Hardness



**Figure 7.6** | An example of a scratch made by the mineral quartz on a streak plate. The red arrow is pointing to the scratch. Quartz, therefore, is harder than glass.

**Author:** Randa Harris

**Source:** Original Work

**License:** CC BY-SA 3.0



**Figure 7.7** | An example of a scratch made by a fingernail on the mineral gypsum. The red arrow is pointing to the scratch. Gypsum, therefore, is softer than a fingernail.

**Author:** Randa Harris

**Source:** Original Work

**License:** CC BY-SA 3.0

## 7.3 LAB EXERCISE

### Materials

Your HOL Lab Kit contains 18 numbered mineral samples, separated into 3 bags (labeled as Mineral Bag 1, 2, or 3). Use these instructions to test and identify them. You will test for different properties after learning about them, then work on identification at the end of the lab. The HOL kit has been specifically tailored to this class – make sure that you are using the kit required by this class, as other rock and mineral kits will not work. Images will be provided of the correct kit; make sure that you closely compare your kit to the images so that you are working with the correct samples. Empty the contents of the testing kit. It will contain:

- A 3" copper wire
- Glass plate (wrapped in paper) – this will be used in testing hardness
- Zinc coated nail
- Unglazed porcelain plate (wrapped in paper) – this will be used as a streak plate
- Hydrochloric acid
- Magnifying glass (10x). To use this, hold it very close to your eye and bring the sample near the glass until it is in focus (approximately one inch from your eye).
- Gloves and protective goggles (for use with the acid)



Take out Minerals Bag 1 and lay the six mineral samples out on a white sheet of paper. It should appear like Figure 7.8. We will first examine hardness from these six samples, and will answer more questions about them later in the lab. Look closely at each of the minerals, using the hand lens to observe them. In this bag, you have the following minerals (not listed in order): Microcline (also called Potassium Feldspar), Fluorite, Quartz, Olivine, Talc, and Selenite (also called Gypsum). They are numbered 1-6.

You need to experiment with each sample to test for its hardness and use Figure 7.5 for reference. Remember that hardness is determined by scratching the mineral (or using the mineral to scratch something else). First, decide which minerals have a hardness greater than 5.5 (the hardness of glass). Lay the glass on a flat surface (not in your hand), then try to scratch it with each mineral. Bare down hard with the mineral, much like trying to leave a scratch on a car with a key. Table 7.1 is given at the end of this lab for you to make notations about each mineral. Note that you do not have to fill in every physical property for every mineral (that would be very time-consuming with 18 samples). Just fill in the properties you are asked about as you work. Note now on the table which minerals have a hardness greater than 5.5. You may also test samples by using materials to scratch them. The copper wire has a hardness of 3. Any mineral that it can scratch will have a hardness less than 3. You can further refine this by using your fingernail (only natural fingernails work for this). Your fingernail has a hardness of 2.5, so if the copper wire scratches a mineral and your fingernail also scratches it, you know its hardness must be  $<2.5$ . The zinc coated nail has a hardness of 4. Also use it to scratch the minerals. Minerals may also be used to scratch each other. For example, if you have two minerals that have a hardness of  $<2.5$ , you can see if one will scratch the other. Then you know it is harder, since it did the scratching.



**Figure 7.8** | The six minerals (#1-6) in Minerals Bag 1 in the HOL kit.

**Author:** Randa Harris

**Source:** Original Work

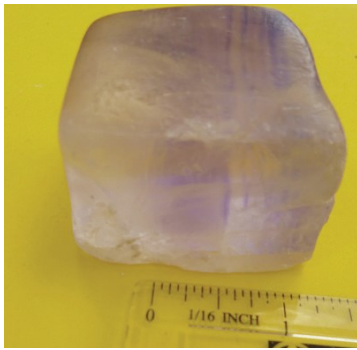
**License:** CC BY-SA 3.0

1. Sample 1: What is this sample's hardness?
  - a. harder than glass
  - b. softer than glass but harder than nail
  - c. softer than nail but harder than copper
  - d. softer than copper but harder than a fingernail
  - e. softer than a fingernail
2. Sample 2: What is this sample's hardness?
  - a. harder than glass
  - b. softer than glass but harder than nail
  - c. softer than nail but harder than copper
  - d. softer than copper but harder than a fingernail
  - e. softer than a fingernail
3. Sample 3: What is this sample's hardness?
  - a. harder than glass
  - b. softer than glass but harder than nail
  - c. softer than nail but harder than copper
  - d. softer than copper but harder than a fingernail
  - e. softer than a fingernail
4. Sample 4: What is this sample's hardness?
  - a. harder than glass
  - b. softer than glass but harder than nail
  - c. softer than nail but harder than copper
  - d. softer than copper but harder than a fingernail
  - e. softer than a fingernail

5. Sample 5: What is this sample's hardness?
- a. harder than glass
  - b. softer than glass but harder than nail
  - c. softer than nail but harder than copper
  - d. softer than copper but harder than a fingernail
  - e. softer than a fingernail
6. Sample 6. What is this sample's hardness?
- a. harder than glass
  - b. softer than glass but harder than nail
  - c. softer than nail but harder than copper
  - d. softer than copper but harder than a fingernail
  - e. softer than a fingernail

## 7.4 CRYSTAL FORM

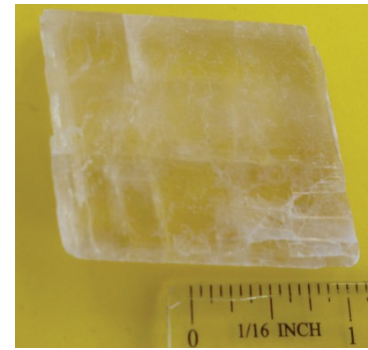
This property refers to the geometric shape that a crystal naturally grows into, and is a reflection of the orderly internal arrangement of atoms within the mineral. If minerals have space to grow when they are developing, they will display their **crystal form**. These ideal growth conditions do not always occur, however, so many minerals do not display their ideal crystal form due to crowded conditions during growth. Examples of crystal form are shown in Figure 7.9.



Cube



Hexagonal Prism



Rhombohedron



Octahedron (8 faces)



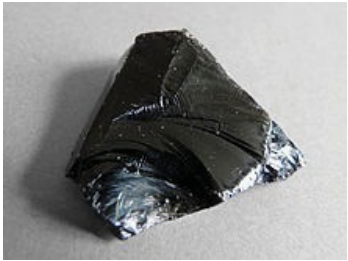



Dodecahedron (12 faces)

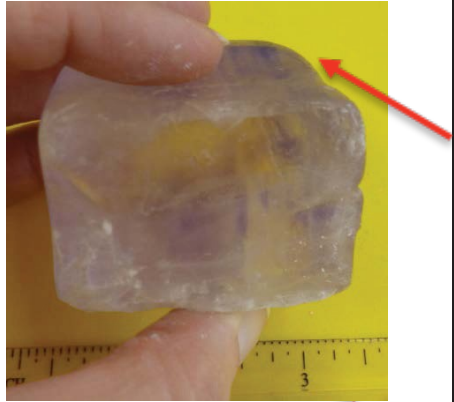
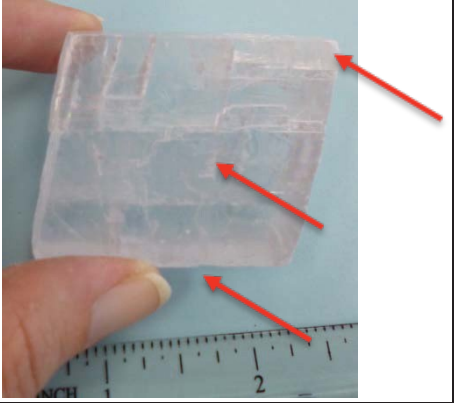
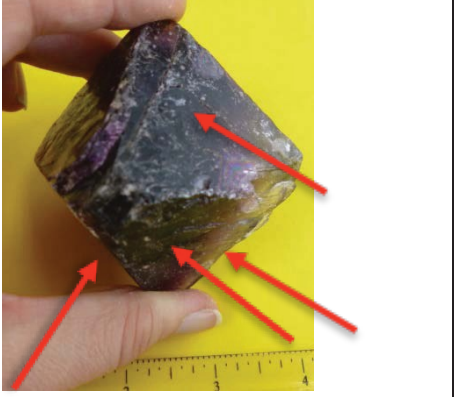
**Figure 7.9** | Examples of crystal form**Author:** Randa Harris**Source:** Original Work**License:** CC BY-SA 3.0

## 7.5 CLEAVAGE

As minerals are broken (such as with a rock hammer, for example), some may cleave, or break, along smooth flat planes known as **cleavage**. These flat surfaces are parallel to directions of weakness within the crystal. All the bonds among the atoms within a mineral may not be of the same strength, so that when a mineral is broken, it breaks along these zones of weakness. This results in flat cleavage planes. Minerals with perfect cleavage break along a smooth, flat plane, while those with poor cleavage break in a more irregular fashion. Some minerals do not contain zones of weakness either because all of the bonds are the same strength or the weaker bonds are not aligned within a plane. If this is the case it will not have cleavage, but rather breaks in a random and irregular fashion. Make sure to distinguish cleavage from crystal form. Crystal form occurs as a mineral *grows*, while cleavage only forms as a mineral *breaks*. See Figure 7.10 for the main types of cleavage and an example of each.



# of Cleavages & Direction	Cleavage Name	Example
0 (none) – mineral fractures	No cleavage planes	
1	Basal cleavage – flat sheets	
2 – cleavages at or near 90°	Prismatic cleavage – rectangular cross-sections	
2 – cleavages not at 90°	Prismatic cleavage – parallelogram cross-sections	

3 – cleavages at 90°	Cubic cleavage – cubes	
3 – cleavages not at 90°	Rhombohedral cleavage – rhombs	
4	Octahedral cleavage	

**Figure 7.10 |** Chart with the main types of cleavage, along with picture examples. Red arrows are pointing to the different cleavage planes in each picture.

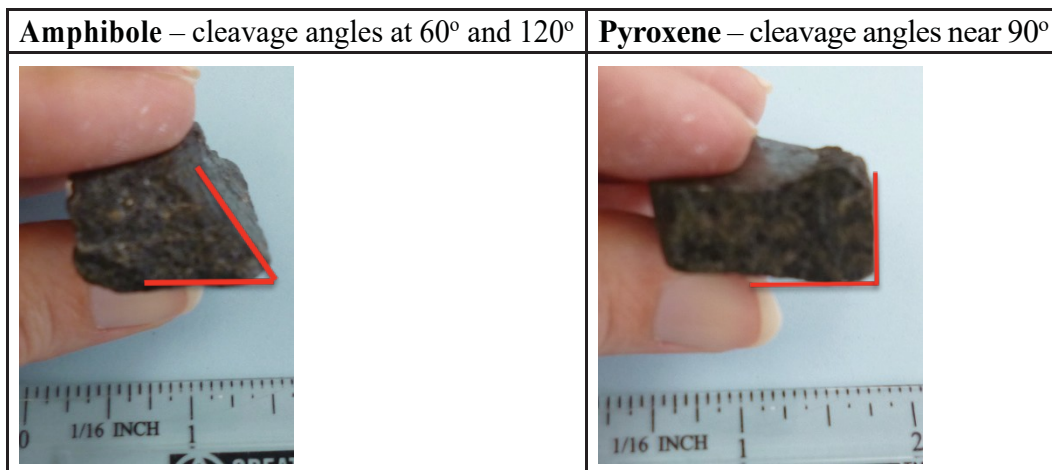
**Author:** Randa Harris

**Source:** Original Work

**License:** CC BY-SA 3.0

A mineral may have one or more cleavage planes. Planes that are parallel are considered the same direction of cleavage and should only count as one. One direction of cleavage is termed basal cleavage. Minerals that display this cleavage will break off in flat sheets. Two directions of cleavage is termed prismatic, while three directions of cleavage at 90° is referred to as cubic. A mineral with four directions of cleavage is termed octahedral. With 2 or more cleavage planes present, it is important to pay attention to the angle of the cleavage planes. To determine the

angle of cleavage, look at the intersection of cleavage planes. Commonly, cleavage planes will intersect at  $60^\circ$ ,  $90^\circ$  (right angles), or  $120^\circ$ . Be cautious when you see a flat surface on a mineral – not every flat surface is a cleavage plane. Crystal faces can be flat, but remember they form as a mineral grows, while cleavage forms as a mineral breaks. The crystal form of quartz is a hexagonal prism, with nice flat sides. But when quartz is hit with a rock hammer, it breaks in an irregular fashion and does not exhibit cleavage. Also use caution when trying to distinguish the minerals pyroxene and amphibole. Both minerals are black or greenish-black, with similar hardness, making them difficult to tell apart. You must observe the cleavage angles to tell them apart. Cleavage angles in pyroxene are near  $90^\circ$ , so expect it to look boxy and form right angles. Cleavage angles in amphibole are  $60^\circ$  and  $120^\circ$ , so expect a more bladed or pyramid like appearance (Figure 7.11).



**Figure 7.11** | Comparison of cleavage angles between amphibole and pyroxene.

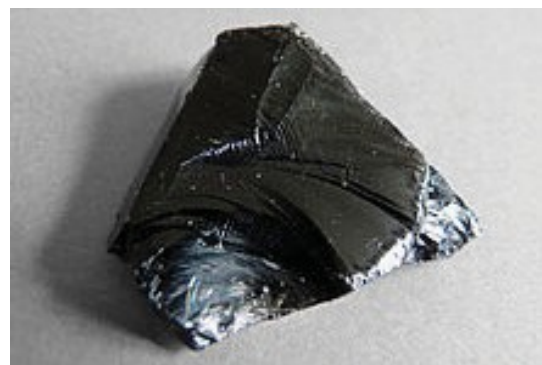
**Author:** Randa Harris

**Source:** Original Work

**License:** CC BY-SA 3.0

## 7.6 FRACTURE

When minerals do not break along cleavage planes, but rather break irregularly, they are said to **fracture**. Commonly fracture surfaces are either uneven or conchoidal, a ribbed, smoothly curved surface similar to broken glass (Figure 7.12).



**Figure 7.12** | This piece of igneous rock called obsidian has been hit with a hammer and is displaying conchoidal fracture.

**Author:** Randa Harris

**Source:** Original Work

**License:** CC BY-SA 3.0

## 7.7 LAB EXERCISE

Take out Minerals Bag 2 and lay the six mineral samples out on a white sheet of paper. It should appear like Figure 7.13. We will first examine cleavage and fracture, along with hardness, from these six samples, and will answer more questions about them later in the lab. Look closely at each of the minerals, using the hand lens to observe them. In this bag, you have the following minerals (not listed in order): Pyroxene, Muscovite Mica, Halite, Amphibole, Calcite, and Biotite Mica. They are numbered 7-12.



**Figure 7.13** | The six minerals (#7-12) in Minerals Bag 2 in the HOL kit.

**Author:** Randa Harris

**Source:** Original Work

**License:** CC BY-SA 3.0

7. Sample 7: This sample has:

- a. no cleavage (it fractures)
- b. 1 cleavage plane
- c. 2 cleavage planes at  $90^\circ$
- d. 3 cleavage planes at  $90^\circ$
- e. 4 cleavage planes

8. Sample 8: This sample has:

- a. no cleavage (it fractures)
- b. 1 cleavage plane
- c. 2 cleavage planes not at  $90^\circ$
- d. 3 cleavage planes not at  $90^\circ$
- e. 4 cleavage planes

9. Sample 9: This sample has:

- a. no cleavage (it fractures)
- b. 1 cleavage plane
- c. 2 cleavage planes not at  $90^\circ$
- d. 3 cleavage planes at  $90^\circ$
- e. 4 cleavage planes

10. Sample 10: This sample has:

- a. no cleavage (it fractures)
- b. 1 cleavage plane
- c. 2 cleavage planes not at  $90^\circ$
- d. 2 cleavage planes at  $90^\circ$
- e. 4 cleavage planes

11. Sample 11: This sample has:

- a. no cleavage (it fractures)
- b. 1 cleavage plane
- c. 2 cleavage planes not at  $90^\circ$
- d. 2 cleavage planes at  $90^\circ$
- e. 3 cleavage planes at  $90^\circ$

12. Sample 11: What is this sample's hardness?

- a. harder than glass
- b. softer than glass but harder than nail
- c. softer than nail but harder than copper
- d. softer than copper but harder than a fingernail
- e. softer than a fingernail

13. Sample 12: This sample has:

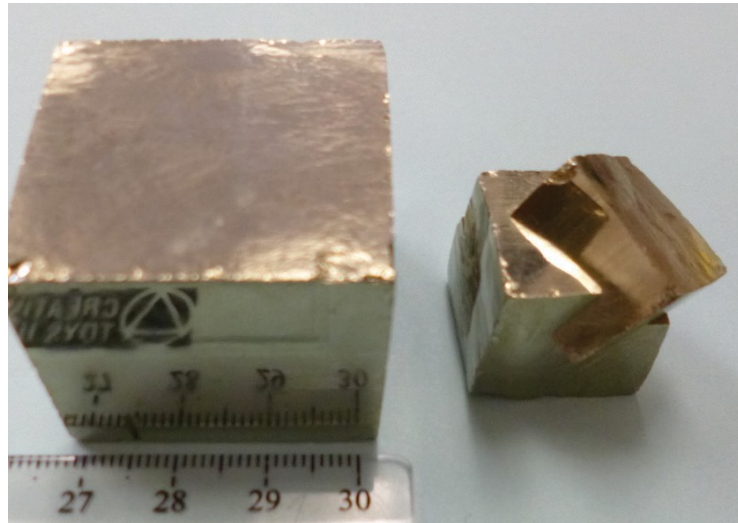
- a. no cleavage (it fractures)
- b. 1 cleavage plane
- c. 2 cleavage planes not at  $90^\circ$
- d. 2 cleavage planes at  $90^\circ$
- e. 3 cleavage planes not at  $90^\circ$

14. Sample 12: What is this sample's hardness?

- a. harder than glass
- b. softer than glass but harder than nail
- c. softer than nail but harder than copper
- d. softer than copper but harder than a fingernail
- e. softer than a fingernail

## 7.8 LUSTER

**Luster** refers to the appearance of the reflection of light from a mineral's surface. It is generally broken into two main types: metallic and non-metallic. Minerals with a metallic luster have the color of a metal, like silver, gold, copper, or brass (Figure 7.14). While minerals with a metallic luster are often shiny, not all shiny minerals are metallic. Make sure you look for the color of a metal, rather than for just a shine. Minerals with non-metallic luster do not appear like metals. They may be vitreous (glassy), earthy (dull), waxy (similar to a candle's luster), greasy (oily), or other types (Figure 7.15).




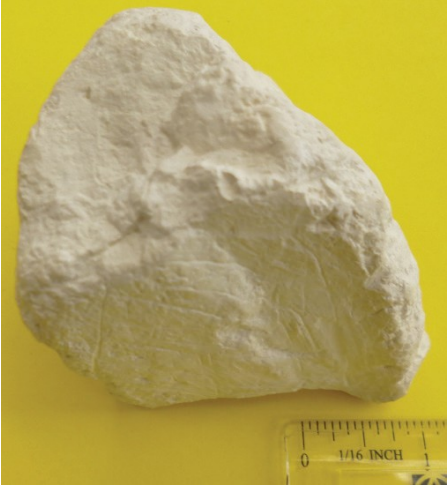
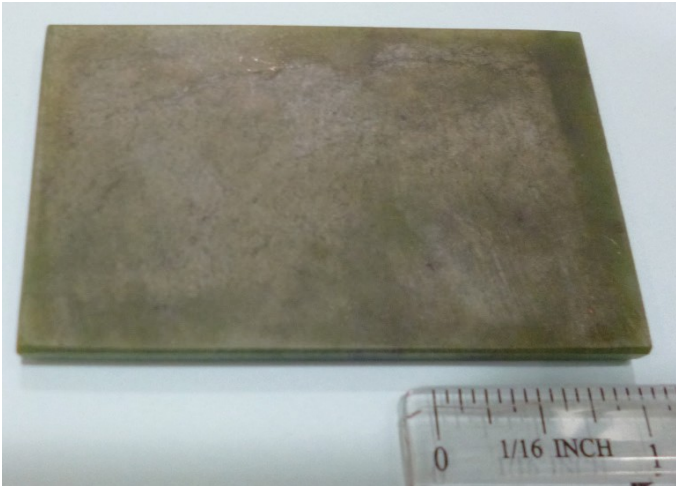
**Figure 7.14** | Examples of the metallic luster of pyrite, also known as "fool's gold."

**Author:** Randa Harris

**Source:** Original Work

**License:** CC BY-SA 3.0



<b>Vitreous</b>	
<b>Earthy</b>	
<b>Waxy</b>	

**Figure 7.15** | Examples of different types of non-metallic lusters.

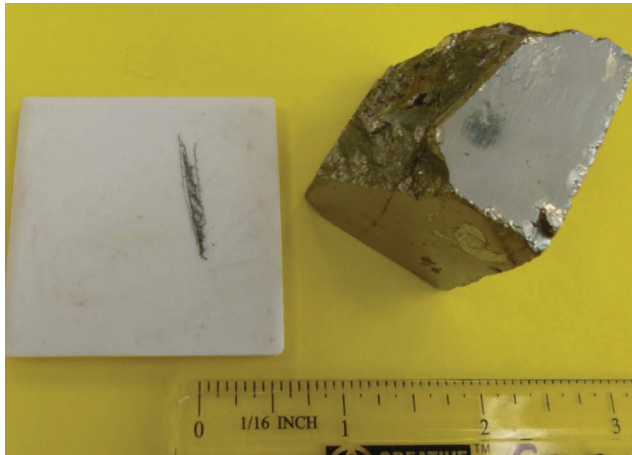
**Author:** Randa Harris

**Source:** Original Work

**License:** CC BY-SA 3.0

## 7.9 STREAK

**Streak** is an easily detectable physical property. It refers to the color left behind on an unglazed piece of porcelain when a mineral is rubbed along its surface. A streak plate is included in your rock and mineral kit to test this property. Often a mineral will have a streak of a different color than the color of the mineral (for example, pyrite has a dark gray streak, Figure 7.16). Some minerals will have a white streak, which is difficult to see along the white streak plate. If you rub a mineral along the streak plate and do not see an obvious streak, wipe your finger along the streak plate. A mineral with a white streak will leave a white powder behind that will rub on your finger (Figure 7.17).



**Figure 7.16** | An example of the dark gray streak left behind when pyrite is rubbed along a streak plate.

**Author:** Randa Harris  
**Source:** Original Work  
**License:** CC BY-SA 3.0



**Figure 7.17** | An example of the white streak (on finger) left behind when fluorite is rubbed along a streak plate.

**Author:** Randa Harris  
**Source:** Original Work  
**License:** CC BY-SA 3.0

## 7.10 SPECIAL PHYSICAL PROPERTIES

Several minerals have unique properties that aid in their identification. **Tenacity** refers to the way a mineral resists breakage. If a mineral shatters like glass, it is said to be brittle (like quartz), while minerals that can be hammered are malleable (like copper, Figure 7.18). Minerals may be elastic, in which they are flexible and bend like a plastic comb, but return to their original shape (like mica, Figure 7.19). Sectile minerals are soft like wax, and can be separated with a knife (like gypsum).

Some minerals react when dilute hydrochloric acid is placed on them. Carbonate



**Figure 7.18** | Copper, which can be hammered into thin sheets, is malleable.

**Author:** Randa Harris  
**Source:** Original Work  
**License:** CC BY-SA 3.0



minerals (minerals that include  $\text{CO}_3$  in their chemical formula) will effervesce or fizz when acid is applied to them. When you test a mineral with acid, be cautious and use just a drop of the acid. Use your magnifying glass to look closely for bubbles (Figure 7.20). The acid is very dilute and will not burn your skin or clothing, but wash your hands after use (gloves and goggles are provided). Also make sure that you rinse with water and wipe off the acid from the minerals that you test.

Minerals may be magnetic, and this property is simply tested by seeing if your nail is attracted to a mineral. Magnetite is an example of a magnetic mineral. The mineral halite is simply table salt, so it will taste salty. Graphite is used in pencils, and makes a nice smudge when rubbed along paper. Talc will feel soapy when touched.

**Specific gravity** is the ratio of a mineral's weight to the weight of an equal volume of water. A mineral with a specific gravity of 2 would weigh twice as much as water. Most minerals are heavier than water, and the average specific gravity for all minerals is approximately 2.7. Some minerals are quite heavy, such as pyrite with a specific gravity of 4.9-5.2, native copper, with a specific gravity of 8.8-9.0, and native gold at 19.3, which makes panning useful for gold, as the heavy mineral stays behind as you wash material out of the pan.

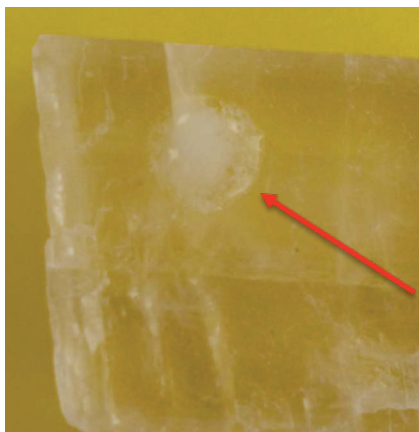


**Figure 7.19** | Muscovite mica, which bends but returns to its original shape, is elastic.

**Author:** Randa Harris

**Source:** Original Work

**License:** CC BY-SA 3.0



**Figure 7.20** | Note the effervescing acid bubbles at the red arrow on this piece of calcite.

**Author:** Randa Harris

**Source:** Original Work

**License:** CC BY-SA 3.0

## 7.11 LAB EXERCISE

Take out Minerals Bag 3 and lay the six mineral samples out on a white sheet of paper. It should appear like Figure 7.21. We will first examine several properties, including streak, from these six samples, and will answer more questions about them later in the lab. Look closely at each of the minerals, using the hand lens to observe them. In this bag, you have the following minerals (not listed in order): Magnetite, Graphite, Copper, Sulfur, Hematite, and Pyrite. They are numbered 13-18.



**Figure 7.21** | The six minerals (#13-18) in Minerals Bag 3 in the HOL kit.

**Author:** Randa Harris

**Source:** Original Work

**License:** CC BY-SA 3.0

15. Sample 13: What is the streak of this sample?

- a. dark gray streak
- b. white streak
- c. reddish brown streak
- d. pale yellow streak

16. Sample 13: What is the luster of this sample?

- a. non-metallic, vitreous
- b. non-metallic, earthy
- c. non-metallic, greasy
- d. non-metallic, waxy
- e. metallic

17. Sample 14: What is the streak of this sample?

- a. dark gray to black streak
- b. white streak
- c. reddish brown streak
- d. pale yellow streak

18. Sample 14: Which other item(s) is/are characteristic(s) of this sample?

- a. stains the fingers
- b. harder than glass
- c. greasy feel
- d. both a and b
- e. both a and c

19. Sample 15: What is the streak of this sample?

- a. dark gray to black streak
- b. white streak
- c. reddish brown streak
- d. pale yellow streak

20. Sample 16: What is the luster of this sample?

- a. non-metallic, vitreous
- b. non-metallic, earthy
- c. non-metallic, greasy
- d. non-metallic, waxy
- e. metallic

21. Sample 16: Due to its appearance, this sample has often been confused with native gold, a mineral with a hardness of 2.5-3. How does its hardness compare with that of gold?

- a. Sample 16 is harder than gold.
- b. Sample 16 is softer than gold.

22. Sample 17: What is the streak of this sample?

- a. dark gray to black streak
- b. white streak
- c. reddish brown streak
- d. pale yellow streak

23. Sample 17: What another unique property does this sample have?

- a. effervescence in acid
- b. it is magnetic
- c. it tastes salty
- d. it feels soapy
- e. it writes on paper

24. Sample 18. Examine this entire sample closely with a hand lens. What is the luster of this sample?

- a. non-metallic, vitreous
- b. non-metallic, earthy
- c. non-metallic, greasy
- d. non-metallic, waxy
- e. metallic

Now that you have had practice at detecting the properties of your 18 mineral samples, take the next step of identifying each sample and answering the questions below. Use the Mineral Identification Chart (Figure 7.22) to help you.

25. Sample 1: What is this sample?

- a. Microcline
- b. Fluorite
- c. Quartz
- d. Olivine
- e. Talc
- f. Selenite (Gypsum)

26. Sample 2: What is this sample?

- a. Microcline
- b. Fluorite
- c. Quartz
- d. Olivine
- e. Talc
- f. Selenite (Gypsum)

Luster	Hardness	Cleavage	Other Properties	Mineral Name
Non-Metallic	> Glass	Poor Cleavage	Red-brown, black, silver in color. H=6. St=red-brown	Hematite
			Olive-green in color. H=6. St=white. Commonly granular	Olivine
			Variety of colors. H=7. Conchoidal fracture. Vitreous luster.	Quartz
		Clearly Shows Cleavage	Black to greenish black in color. H=6. C=2 planes at ~60° and 120°. Elongated crystals.	Amphibole
			Tan-pink, white, green in color. H=6. C=2 planes at 90°.	Microcline
			Black to greenish black in color. H=6. C=2 planes at ~90°. Short stubby crystals.	Pyroxene
	< Glass	Poor Cleavage	Dark gray to black in color. H=1. Greasy feel - will smudge fingers.	Graphite
			Yellow in color. H=1.5-2.5. St=white to yellow.	Sulfur
			White to green in color. H=1. Soapy feel.	Talc
		Clearly Shows Cleavage	Brown to black in color. H=2.5. C=1 perfect. Breaks into thin sheets that are elastic.	Biotite Mica
			White to transparent in color. H=3. C=3 rhombohedral. Strong effervescence in acid.	Calcite
			Transparent, yellow, purple, green in color. H=4. C=4 - octahedral.	Fluorite
			Transparent to white in color. H=2. C=3, though 2 directions may be difficult to see.	Gypsum
			White to transparent in color. H=2.5. C=3, cubic. Tastes salty.	Halite
			Transparent, light brown, to yellow in color. H=2.5. C=1 perfect. Breaks into thin sheets that are elastic.	Muscovite Mica
Metallic	> Glass	Poor Cleavage	Black in color. H=6. St=black. Strongly magnetic.	Magnetite
			Brass-yellow in color. H=6.5. St=dark gray.	Pyrite
	<Glass	Poor Cleavage	Copper-red in color. Tarnishes to green or black in air. H=2.5-3. St=copper-red.	Copper

**Figure 7.22** | Mineral Identification Chart**Author:** Randa Harris**Source:** Original Work**License:** CC BY-SA 3.0

27. Sample 3: What is this sample?

- |               |             |                      |
|---------------|-------------|----------------------|
| a. Microcline | b. Fluorite | c. Quartz            |
| d. Olivine    | e. Talc     | f. Selenite (Gypsum) |

28. Sample 4: What is this sample?

- |               |             |                      |
|---------------|-------------|----------------------|
| a. Microcline | b. Fluorite | c. Quartz            |
| d. Olivine    | e. Talc     | f. Selenite (Gypsum) |

29. Sample 4: What other unique property does this sample have?

- |                          |                   |
|--------------------------|-------------------|
| a. effervescence in acid | b. it is magnetic |
| c. it tastes salty       | d. it feels soapy |
| e. it writes on paper    |                   |

30. Sample 5: What is this sample?

- |               |             |                      |
|---------------|-------------|----------------------|
| a. Microcline | b. Fluorite | c. Quartz            |
| d. Olivine    | e. Talc     | f. Selenite (Gypsum) |

31. Sample 6: What is this sample?

- |               |             |                      |
|---------------|-------------|----------------------|
| a. Microcline | b. Fluorite | c. Quartz            |
| d. Olivine    | e. Talc     | f. Selenite (Gypsum) |

32. Sample 7: What is this sample?

- |              |                   |                 |
|--------------|-------------------|-----------------|
| a. Pyroxene  | b. Muscovite Mica | c. Halite       |
| d. Amphibole | e. Calcite        | f. Biotite Mica |

33. Sample 7: What other unique property does this sample have?

- |                          |                       |                    |
|--------------------------|-----------------------|--------------------|
| a. effervescence in acid | b. it is magnetic     | c. it tastes salty |
| d. it feels soapy        | e. it writes on paper |                    |

34. Sample 8: What is this sample?

- a. Pyroxene                      b. Muscovite Mica   c. Halite
- d. Amphibole                    e. Calcite                      f. Biotite Mica

35. Sample 8: What other unique property does this sample have?

- a. effervescence in acid                      b. it is magnetic
- c. it tastes salty                                  d. it feels soapy
- e. it writes on paper

36. Sample 9: What is this sample?

- a. Pyroxene                      b. Muscovite Mica   c. Halite
- d. Amphibole                    e. Calcite                      f. Biotite Mica

37. Sample 10: What is this sample?

- a. Pyroxene                      b. Muscovite Mica   c. Halite
- d. Amphibole                    e. Calcite                      f. Biotite Mica

38. Sample 10: Test this tenacity of this mineral by trying to bend it. Which way does it behave?

- a. sectile                      b. malleable                      c. elastic                      d. brittle

39. Sample 11: What is this sample?

- a. Pyroxene                      b. Muscovite Mica   c. Halite
- d. Amphibole                    e. Calcite                      f. Biotite Mica

40. Sample 12: What is this sample?

- a. Pyroxene                      b. Muscovite Mica   c. Halite
- d. Amphibole                    e. Calcite                      f. Biotite Mica

41. Sample 13: What is this sample?

- |              |             |           |
|--------------|-------------|-----------|
| a. Magnetite | b. Graphite | c. Copper |
| d. Sulfur    | e. Hematite | f. Pyrite |

42. Sample 14: What is this sample?

- |              |             |           |
|--------------|-------------|-----------|
| a. Magnetite | b. Graphite | c. Copper |
| d. Sulfur    | e. Hematite | f. Pyrite |

43. Sample 15: What is this sample?

- |              |             |           |
|--------------|-------------|-----------|
| a. Magnetite | b. Graphite | c. Copper |
| d. Sulfur    | e. Hematite | f. Pyrite |

44. Sample 16: What is this sample?

- |              |             |           |
|--------------|-------------|-----------|
| a. Magnetite | b. Graphite | c. Copper |
| d. Sulfur    | e. Hematite | f. Pyrite |

45. Sample 17: What is this sample?

- |              |             |           |
|--------------|-------------|-----------|
| a. Magnetite | b. Graphite | c. Copper |
| d. Sulfur    | e. Hematite | f. Pyrite |

46. Sample 18: What is this sample?

- |              |             |           |
|--------------|-------------|-----------|
| a. Magnetite | b. Graphite | c. Copper |
| d. Sulfur    | e. Hematite | f. Pyrite |



**Table 7.1 | Mineral Notation Chart** – Fill in this chart as you work through the lab. An example of a mineral you do not have in your kit (#0) is included. You do not have to fill out every column for every mineral – just follow along in the lab and determine the properties you are asked about.

**Author:** Randa Harris  
**Source:** Original Work  
**License:** CC BY-SA 3.0

Mineral #	Luster	Hardness	Cleavage/Fracture	Streak	Other Notable Properties (include color when diagnostic)	Name
0	Metallic	~2.5 – may scratch fingernail	3 - cubic	gray	High specific gravity because it is heavy	Galena

Mineral #	Luster	Hardness	Cleavage/Fracture	Streak	Other Notable Properties (include color when diagnostic)	Name

Mineral #	Luster	Hardness	Cleavage/Fracture	Streak	Other Notable Properties (include color when diagnostic)	Name

Mineral #	Luster	Hardness	Cleavage/Fracture	Streak	Other Notable Properties (include color when diagnostic)	Name

## 7.12 STUDENT RESPONSES

The following is a summary of the questions in this lab for ease in submitting answers online.

1. Sample 1: What is this sample's hardness?
  - a. harder than glass
  - b. softer than glass but harder than nail
  - c. softer than nail but harder than copper
  - d. softer than copper but harder than a fingernail
  - e. softer than a fingernail
  
2. Sample 2: What is this sample's hardness?
  - a. harder than glass
  - b. softer than glass but harder than nail
  - c. softer than nail but harder than copper
  - d. softer than copper but harder than a fingernail
  - e. softer than a fingernail
  
3. Sample 3: What is this sample's hardness?
  - a. harder than glass
  - b. softer than glass but harder than nail
  - c. softer than nail but harder than copper
  - d. softer than copper but harder than a fingernail
  - e. softer than a fingernail

4. Sample 4: What is this sample's hardness?
- a. harder than glass
  - b. softer than glass but harder than nail
  - c. softer than nail but harder than copper
  - d. softer than copper but harder than a fingernail
  - e. softer than a fingernail
5. Sample 5: What is this sample's hardness?
- a. harder than glass
  - b. softer than glass but harder than nail
  - c. softer than nail but harder than copper
  - d. softer than copper but harder than a fingernail
  - e. softer than a fingernail
6. Sample 6. What is this sample's hardness?
- a. harder than glass
  - b. softer than glass but harder than nail
  - c. softer than nail but harder than copper
  - d. softer than copper but harder than a fingernail
  - e. softer than a fingernail
7. Sample 7: This sample has:
- a. no cleavage (it fractures)
  - b. 1 cleavage plane
  - c. 2 cleavage planes at 90°
  - d. 3 cleavage planes at 90°
  - e. 4 cleavage planes

8. Sample 8: This sample has:

- a. no cleavage (it fractures)
- b. 1 cleavage plane
- c. 2 cleavage planes not at  $90^\circ$
- d. 3 cleavage planes not at  $90^\circ$
- e. 4 cleavage planes

9. Sample 9: This sample has:

- a. no cleavage (it fractures)
- b. 1 cleavage plane
- c. 2 cleavage planes not at  $90^\circ$
- d. 3 cleavage planes at  $90^\circ$
- e. 4 cleavage planes

10. Sample 10: This sample has:

- a. no cleavage (it fractures)
- b. 1 cleavage plane
- c. 2 cleavage planes not at  $90^\circ$
- d. 2 cleavage planes at  $90^\circ$
- e. 4 cleavage planes

11. Sample 11: This sample has:

- a. no cleavage (it fractures)
- b. 1 cleavage plane
- c. 2 cleavage planes not at  $90^\circ$
- d. 2 cleavage planes at  $90^\circ$
- e. 3 cleavage planes at  $90^\circ$

12. Sample 11: What is this sample's hardness?

- a. harder than glass
- b. softer than glass but harder than nail
- c. softer than nail but harder than copper
- d. softer than copper but harder than a fingernail
- e. softer than a fingernail

13. Sample 12: This sample has:

- a. no cleavage (it fractures)
- b. 1 cleavage plane
- c. 2 cleavage planes not at 90°
- d. 2 cleavage planes at 90°
- e. 3 cleavage planes not at 90°

14. Sample 12: What is this sample's hardness?

- a. harder than glass
- b. softer than glass but harder than nail
- c. softer than nail but harder than copper
- d. softer than copper but harder than a fingernail
- e. softer than a fingernail

15. Sample 13: What is the streak of this sample?

- a. dark gray streak
- b. white streak
- c. reddish brown streak
- d. pale yellow streak

16. Sample 13: What is the luster of this sample?

- a. non-metallic, vitreous
- b. non-metallic, earthy
- c. non-metallic, greasy
- d. non-metallic, waxy
- e. metallic

17. Sample 14: What is the streak of this sample?

- a. dark gray to black streak
- b. white streak
- c. reddish brown streak
- d. pale yellow streak

18. Sample 14: Which other item(s) is/are characteristic(s) of this sample?

- a. stains the fingers
- b. harder than glass
- c. greasy feel
- d. both a and b
- e. both a and c



19. Sample 15: What is the streak of this sample?

- a. dark gray to black streak
- b. white streak
- c. reddish brown streak
- d. pale yellow streak

20. Sample 16: What is the luster of this sample?

- a. non-metallic, vitreous
- b. non-metallic, earthy
- c. non-metallic, greasy
- d. non-metallic, waxy
- e. metallic

21. Sample 16: Due to its appearance, this sample has often been confused with native gold, a mineral with a hardness of 2.5-3. How does its hardness compare with that of gold?

- a. Sample 16 is harder than gold.
- b. Sample 16 is softer than gold.

22. Sample 17: What is the streak of this sample?

- a. dark gray to black streak
- b. white streak
- c. reddish brown streak
- d. pale yellow streak

23. Sample 17: What another unique property does this sample have?

- a. effervescence in acid
- b. it is magnetic
- c. it tastes salty
- d. it feels soapy
- e. it writes on paper

24. Sample 18. Examine this entire sample closely with a hand lens. What is the luster of this sample?

- a. non-metallic, vitreous
- b. non-metallic, earthy
- c. non-metallic, greasy
- d. non-metallic, waxy
- e. metallic

25. Sample 1: What is this sample?

- |               |             |                      |
|---------------|-------------|----------------------|
| a. Microcline | b. Fluorite | c. Quartz            |
| d. Olivine    | e. Talc     | f. Selenite (Gypsum) |

26. Sample 2: What is this sample?

- |               |             |                      |
|---------------|-------------|----------------------|
| a. Microcline | b. Fluorite | c. Quartz            |
| d. Olivine    | e. Talc     | f. Selenite (Gypsum) |

27. Sample 3: What is this sample?

- |               |             |                      |
|---------------|-------------|----------------------|
| a. Microcline | b. Fluorite | c. Quartz            |
| d. Olivine    | e. Talc     | f. Selenite (Gypsum) |

28. Sample 4: What is this sample?

- |               |             |                      |
|---------------|-------------|----------------------|
| a. Microcline | b. Fluorite | c. Quartz            |
| d. Olivine    | e. Talc     | f. Selenite (Gypsum) |

29. Sample 4: What other unique property does this sample have?

- |                          |                   |
|--------------------------|-------------------|
| a. effervescence in acid | b. it is magnetic |
| c. it tastes salty       | d. it feels soapy |
| e. it writes on paper    |                   |

30. Sample 5: What is this sample?

- |               |             |                      |
|---------------|-------------|----------------------|
| a. Microcline | b. Fluorite | c. Quartz            |
| d. Olivine    | e. Talc     | f. Selenite (Gypsum) |

31. Sample 6: What is this sample?

- |               |             |                      |
|---------------|-------------|----------------------|
| a. Microcline | b. Fluorite | c. Quartz            |
| d. Olivine    | e. Talc     | f. Selenite (Gypsum) |

32. Sample 7: What is this sample?

- a. Pyroxene                      b. Muscovite Mica   c. Halite
- d. Amphibole                    e. Calcite                      f. Biotite Mica

33. Sample 7: What other unique property does this sample have?

- a. effervescence in acid                      b. it is magnetic                      c. it tastes salty
- d. it feels soapy                                  e. it writes on paper

34. Sample 8: What is this sample?

- a. Pyroxene                      b. Muscovite Mica   c. Halite
- d. Amphibole                    e. Calcite                      f. Biotite Mica

35. Sample 8: What other unique property does this sample have?

- a. effervescence in acid                      b. it is magnetic                      c. it tastes salty
- d. it feels soapy                                  e. it writes on paper

36. Sample 9: What is this sample?

- a. Pyroxene                      b. Muscovite Mica   c. Halite
- d. Amphibole                    e. Calcite                      f. Biotite Mica

37. Sample 10: What is this sample?

- a. Pyroxene                      b. Muscovite Mica   c. Halite
- d. Amphibole                    e. Calcite                      f. Biotite Mica

38. Sample 10: Test this tenacity of this mineral by trying to bend it. Which way does it behave?

- a. sectile                      b. malleable                      c. elastic                      d. brittle

39. Sample 11: What is this sample?

- a. Pyroxene                      b. Muscovite Mica   c. Halite
- d. Amphibole                    e. Calcite                      f. Biotite Mica

40. Sample 12: What is this sample?

- |              |                   |                 |
|--------------|-------------------|-----------------|
| a. Pyroxene  | b. Muscovite Mica | c. Halite       |
| d. Amphibole | e. Calcite        | f. Biotite Mica |

41. Sample 13: What is this sample?

- |              |             |           |
|--------------|-------------|-----------|
| a. Magnetite | b. Graphite | c. Copper |
| d. Sulfur    | e. Hematite | f. Pyrite |

42. Sample 14: What is this sample?

- |              |             |           |
|--------------|-------------|-----------|
| a. Magnetite | b. Graphite | c. Copper |
| d. Sulfur    | e. Hematite | f. Pyrite |

43. Sample 15: What is this sample?

- |              |             |           |
|--------------|-------------|-----------|
| a. Magnetite | b. Graphite | c. Copper |
| d. Sulfur    | e. Hematite | f. Pyrite |

44. Sample 16: What is this sample?

- |              |             |           |
|--------------|-------------|-----------|
| a. Magnetite | b. Graphite | c. Copper |
| d. Sulfur    | e. Hematite | f. Pyrite |

45. Sample 17: What is this sample?

- |              |             |           |
|--------------|-------------|-----------|
| a. Magnetite | b. Graphite | c. Copper |
| d. Sulfur    | e. Hematite | f. Pyrite |

46. Sample 18: What is this sample?

- |              |             |           |
|--------------|-------------|-----------|
| a. Magnetite | b. Graphite | c. Copper |
| d. Sulfur    | e. Hematite | f. Pyrite |

## Case Study 1: HealthWorks Software Audit

Due: Mon. 2/17 (before class)

### Prompt:

You work at HealthWorks, a startup that creates software for employers to predict the health and wellbeing of their employees for the next fiscal year. The algorithm is fed data from the employees, primarily survey data involving questions about their lifestyles and habits. In addition, the algorithm will process employees' medical records for doctors, hospitals, etc., if the employee voluntarily submits this information themselves.

Having worked on the original programming team, you are now the Chief Technical Officer (CTO) of HealthWorks. The organization employs 20 full-time professionals and provides its proprietary software to 40 different companies, including midsize businesses and larger corporations. Following a year of bad press about algorithms and big data, the CEO of HealthWorks (your boss) has decided to submit the company's algorithm to an external auditing firm specializing in the ethical impacts of computer code. As the CTO, you have been charged with evaluating the report from the auditor and deciding on the best course of action.

The audit returned two primary impacts of potential ethical concern.

**Audit Finding 1:** Two corporations are subtly implying in internal memos that their employees must provide their personal medical records "to maintain the health of the company."

According to the end-user license agreement (EULA), "HealthWorks encourages companies to include medical records from personnel because those data improve the accuracy of the predictions; however, HealthWorks maintains that submission of sensitive data must be voluntary."

**Audit Finding 2:** Three midsize businesses are using the future wellbeing predictions in their decisions for job promotion, especially for management positions, such as using the expected number of sick days as a proxy for future productivity.

According to the EULA, "HealthWorks has developed this algorithm for the primary purpose of improving the health and wellbeing of workers. The company does not intend that it be used for decision-making involving promotions, nor has it been evaluated for such."

### Instructions:

For each of the two findings in the report, (1) make a judgment as to whether the finding is morally acceptable or not and ground your judgment on ethical principles (e.g., the conditions for a Weapon of Math Destruction) and frameworks from class (e.g., utilitarianism, egalitarianism, liberalism, etc.). Then, for each, (2) propose an ethically appropriate action that HealthWorks ought to take and provide a justification for your choice. After each of these, (3)

discuss one strong objection to your argument or proposal and then provide an equally strong response in defense.

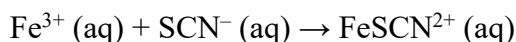
Papers must be *at least* 2 full pages, with double spacing, 12-point font, and 1-in margins. This paper is 7.5% of your final grade. Students should use techniques from skill workshop 1 on logic to convey their arguments. Papers will be graded according to three criteria: completeness, clarity, and resourcefulness.

1. Completeness (5 points):
  - a. Length: 2 full pages (not including citations)
  - b. Structure: Contains the following 6 elements:
    - i. For each of the two findings, an ethical argument with a clear judgment (for/against) and grounds (ethical reasons and empirical support);
    - ii. For each of the two findings, a proposal for the action that HealthWorks ought to take, with a clear judgment and ethical grounds, and connections to the previous evaluation;
    - iii. For each of the two findings, raise one strong objection to either the evaluation, proposal, or both and then provide a strong response in defense.
2. Clarity (3 points)
  - a. Position and judgment
    - i. Coherence and consistency throughout
    - ii. Intelligibility throughout
  - b. Logic
    - i. Appropriate use of grounds
    - ii. Well targeted objections and responses
    - iii. Avoids logical fallacies
3. Resourcefulness (2 points):
  - a. Able to deal skillfully with new situations and their nuances
  - b. Skill use of ethical grounds for arguments, including
    - i. Ethical principles and guidelines
    - ii. Other moral and practical considerations
    - iii. Strengths and weaknesses of an approach
    - iv. Different stakeholders

Late paper policy: For essays and papers, a late penalty of 1% per day (out of the assignment's 100 total points) is imposed on papers submitted after the due date without legitimate excuse. For instance, a paper turned in 10 days late has a starting grade of 90%. For papers late by over 3 weeks, students are responsible for contacting the professor to arrange a plan for completion.

# The Determination of an Equilibrium Constant

Chemical reactions occur to reach a state of equilibrium. The equilibrium state can be characterized by quantitatively defining its equilibrium constant,  $K_{eq}$ . In this experiment, you will determine the value of  $K_{eq}$  for the reaction between iron (III) ions and thiocyanate ions,  $\text{SCN}^-$ .



The equilibrium constant,  $K_{eq}$ , is defined by the equation shown below.

$$K_{eq} = \frac{[\text{FeSCN}^{2+}]}{[\text{Fe}^{3+}][\text{SCN}^-]}$$

To find the value of  $K_{eq}$ , which depends only upon temperature, it is necessary to determine the molar concentration of each of the three species in solution at equilibrium. You will use a colorimeter to help you measure the concentrations (see Figure 1). The amount of light absorbed by a colored solution is proportional to its concentration. The red  $\text{FeSCN}^{2+}$  solution absorbs blue light, and it will be analyzed at 470 nm (blue light).

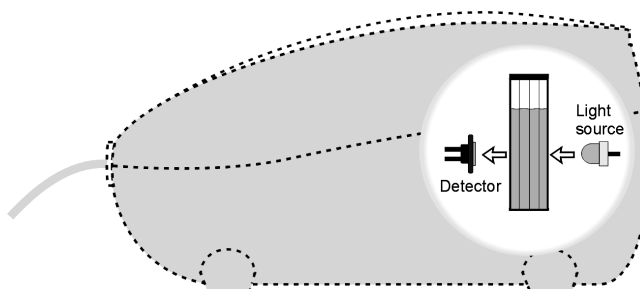


Figure 1

In order to successfully evaluate this equilibrium system, it is necessary to conduct three separate tests. First, you will prepare a series of standard solutions of  $\text{FeSCN}^{2+}$  from solutions of varying concentrations of  $\text{SCN}^-$  and constant concentrations of  $\text{H}^+$  and  $\text{Fe}^{3+}$  that are in stoichiometric excess. The excess of  $\text{H}^+$  ions will ensure that  $\text{Fe}^{3+}$  engages in no side reactions (to form  $\text{FeOH}^{2+}$ , for example). The excess of  $\text{Fe}^{3+}$  ions will make the  $\text{SCN}^-$  ions the limiting reagent, thus all of the  $\text{SCN}^-$  used will form  $\text{FeSCN}^{2+}$  ions. The  $\text{FeSCN}^{2+}$  complex forms slowly, taking at least one minute for the color to develop. It is best to take absorbance readings after a specific amount of time has elapsed, between two and four minutes after preparing the equilibrium mixture. Do not wait much longer than four minutes to take readings, however, because the mixture is light sensitive and the  $\text{FeSCN}^{2+}$  ions will slowly decompose.

In Part II of the experiment, you will analyze a solution of unknown  $[\text{SCN}^-]$  by using the same procedure that you followed in Part I. In this manner, you will determine the molar concentration of the  $\text{SCN}^-$  solution.

Third, you will prepare a new series of solutions that have varied concentrations of the  $\text{Fe}^{3+}$  ions and the  $\text{SCN}^-$  ions, with a constant concentration of  $\text{H}^+$  ions. You will use the results of this test to accurately evaluate the equilibrium concentrations of each species.

## OBJECTIVES

In this experiment, you will

- Prepare and test standard solutions of  $\text{FeSCN}^{2+}$  in equilibrium.
- Test solutions of  $\text{SCN}^-$  of unknown molar concentration.
- Determine the molar concentrations of the ions present in an equilibrium system.
- Determine the value of the equilibrium constant,  $K_{eq}$ , for the reaction.

## MATERIALS

LabQuest  
LabQuest App  
Vernier Colorimeter  
Temperature Probe (optional)  
plastic cuvette  
four 10.0 mL pipettes  
pipet pump or bulb  
six 20 × 150 mm test tubes  
50 mL volumetric flask  
eight 100 mL beakers  
plastic Beral pipets

0.200 M iron (III) nitrate,  $\text{Fe}(\text{NO}_3)_3$ , solution  
in 1.0 M  $\text{HNO}_3$   
0.0020 M iron (III) nitrate,  $\text{Fe}(\text{NO}_3)_3$ , solution  
in 1.0 M  $\text{HNO}_3$   
potassium thiocyanate, KSCN solution of  
unknown concentration  
0.0020 M thiocyanate,  $\text{SCN}^-$   
test tube rack  
distilled water  
tissue

## PRE-LAB EXERCISE

For the solutions that you will prepare in Step 2 of Part I below, calculate the  $[\text{FeSCN}^{2+}]$ . Presume that all of the  $\text{SCN}^-$  ions react. In Part I of the experiment,  $\text{mol of } \text{SCN}^- = \text{mol of } \text{FeSCN}^{2+}$ . Thus, the calculation of  $[\text{FeSCN}^{2+}]$  is:  $\text{mol } \text{FeSCN}^{2+} \div \text{L of total solution}$ . Record these values in the table below.

Beaker number	$[\text{FeSCN}^{2+}]$
1	0.00 M
2	
3	
4	
5	

## PROCEDURE

### Part I Prepare and Test Standard Solutions

1. Obtain and wear goggles.
2. Label five 100 mL beakers 1–5. Obtain small volumes of: 0.200 M  $\text{Fe}(\text{NO}_3)_3$ , 0.0020 M  $\text{SCN}^-$ , and distilled water. **CAUTION:**  *$\text{Fe}(\text{NO}_3)_3$  solutions in this experiment are prepared in 1.0 M  $\text{HNO}_3$  and should be handled with care.* Prepare five solutions according to the



### The Determination of an Equilibrium Constant

chart below. Use a 10.0 mL pipet and a pipet pump or bulb to transfer each solution to a 50 mL volumetric flask. Mix each solution thoroughly. Measure and record the temperature of one of the above solutions to use as the temperature for the equilibrium constant,  $K_{eq}$ .

Beaker number	0.200 M $\text{Fe}(\text{NO}_3)_3$ (mL)	0.0020 M $\text{SCN}^-$ (mL)	$\text{H}_2\text{O}$ (mL)
1	5.0	0.0	45.0
2	5.0	2.0	43.0
3	5.0	3.0	42.0
4	5.0	4.0	41.0
5	5.0	5.0	40.0

3. Connect the Colorimeter to LabQuest and choose New from the File menu. If you have an older sensor that does not auto-ID, manually set up the sensor.
4. Calibrate the Colorimeter.
  - a. Prepare a *blank* by filling an empty cuvette 3/4 full with distilled water.
  - b. Place the blank in the cuvette slot of the Colorimeter and close the lid.
  - c. Press the < or > buttons on the Colorimeter to set the wavelength to 470 nm (Blue). Then calibrate by pressing the CAL button on the Colorimeter. When the LED stops flashing, the calibration is complete.
5. On the Meter screen, tap Mode. Change the data-collection mode to Events with Entry. Enter the Name (Concentration) and Units (mol/L). Select OK.
6. You are now ready to collect absorbance data for the standard solutions. **Note:** Take readings within 4 minutes of preparing the mixtures.
  - a. Start data collection.
  - b. Empty the water from the cuvette. Using the solution in Beaker 1, rinse the cuvette twice with ~1 mL amounts and then fill it 3/4 full. Wipe the outside with a tissue, place it in the Colorimeter, and close the lid. When the absorbance readings stabilize, tap Keep and enter the concentration of  $\text{FeSCN}^{2+}$  (from your Pre-Lab exercise) for the first trial. Select OK to continue.
  - c. Discard the cuvette contents as directed. Rinse and fill the cuvette with the solution in Beaker 2. Wipe the outside with a tissue, place it in the Colorimeter, and close the lid. Follow the procedure in Part b of this step to measure the absorbance and enter the concentration of this solution.
  - d. Repeat this process to find the absorbance of the solutions in Beakers 3, 4, and 5.
  - e. Stop data collection to view a graph of absorbance vs. concentration. To examine the data pairs on the displayed graph, select any data point. As you tap each point, the absorbance and concentration values of each data point are displayed to the right of the graph.
7. Record the absorbance values, for each of the five solutions, in your data table.

8. Display a graph of absorbance vs. concentration with a linear regression curve.
  - a. Choose Curve Fit from the Analyze menu.
  - b. Select Linear as the Fit Equation. The linear-regression statistics are displayed to the right of the graph for the equation in the form

$$y = mx + b$$

where  $x$  is time,  $y$  is absorbance,  $m$  is the slope, and  $b$  is the y-intercept.

- c. Record the best-fit line equation in your data table and select OK.

### Part II Test an Unknown Solution of $\text{SCN}^-$

9. Obtain about 10 mL of the unknown  $\text{SCN}^-$  solution. Use a pipet to measure out 5.0 mL of the unknown into a clean and dry 100 mL beaker. Add precisely 5.0 mL of 0.200 M  $\text{Fe}(\text{NO}_3)_3$  and 40.0 mL of distilled water to the beaker. Stir the mixture thoroughly.
10. Using the solution in the test tube, rinse a cuvette twice with ~1 mL amounts and then fill it 3/4 full. Wipe the outside with a tissue, place it in the Colorimeter, and close the lid.
11. Determine the concentration of the unknown.
  - a. Tap Meter. Monitor the absorbance readings on the screen.
  - b. When the readings stabilize, record the absorbance value for your unknown in your data table.
  - c. Remove and clean the cuvette.
  - d. Tap Graph and choose Interpolate from the Analyze menu.
  - e. Trace the linear regression equation to find the concentration of your unknown at the absorbance displayed on the meter.

### Part III Prepare and Test Equilibrium Systems

12. Prepare five test tubes of solutions according to the chart below. Follow the necessary steps from Part I to test the absorbance values of each mixture. Record the results in your data table. **Note:** You are using 0.0020 M  $\text{Fe}(\text{NO}_3)_3$  in this test.

Test tube number	0.0020 M $\text{Fe}(\text{NO}_3)_3$ (mL)	0.0020 M $\text{SCN}^-$ (mL)	$\text{H}_2\text{O}$ (mL)
1	3.00	0.00	7.00
2	3.00	2.00	5.00
3	3.00	3.00	4.00
4	3.00	4.00	3.00
5	3.00	5.00	2.00

13. To get good data for the calculation of  $K_{eq}$ , you must determine the net absorbance of the solutions in Test Tubes 2–5. To do this, subtract the absorbance reading for Test Tube 1 from the absorbance readings of Test Tubes 2–5, and record these values as net absorbance in your data table.

## DATA TABLE

### Parts I and II

Beaker number	Absorbance
1	
2	
3	
4	
5	
Unknown, Part II	

Best-fit line equation for the Part I standard solutions: \_\_\_\_\_

### Part III

Test tube number	Absorbance	Net absorbance
1		
2		
3		
4		
5		

## DATA ANALYSIS

1. (Part II) Use the best-fit line and the absorbance reading for your unknown solution to determine  $[\text{SCN}^-]$ .

### LabQuest 10

---

2. (Part II) Compare your experimental  $[\text{SCN}^-]$ , of your unknown, with the actual  $[\text{SCN}^-]$ . Suggest reasons for the disparity.
3. (Part III) Use the net absorbance values, along with the best fit line equation of the standard solutions in Part I to determine the  $[\text{FeSCN}^{2+}]$  at equilibrium for each of the mixtures that you prepared in Part III. Complete the table below and give an example of your calculations.

Test tube number	2	3	4	5
$[\text{FeSCN}^{2+}]$				

4. (Part III) Calculate the equilibrium concentrations for  $\text{Fe}^{3+}$  and  $\text{SCN}^-$  for the mixtures in Test tubes 2-5 in Part III. Complete the table below and give an example of your calculations.

Test tube number	2	3	4	5
$[\text{Fe}^{3+}]$				
$[\text{SCN}^-]$				

5. Calculate the value of  $K_{eq}$  for the reaction. Explain how you used the data to calculate  $K_{eq}$ .

**Discussion topics:** Side articles have been chosen from some of the chapters. These articles are found as 12 forums in Discussions. For the 20 points that can be earned from each of these articles you are to post your thoughts about the subjects raised in the articles, using concepts contained in the chapter. When posting, you cannot be sure of the makeup of your audience. Therefore, you are expected to use proper sentence structure, punctuation, and capitalization. You are also to respond to at least one of your classmates' posts. **You will have to create your own thread with your response before you will be able to read those of your classmates.** Half of the points will come from your original post, and half from your response to a classmate. For your response, you must add to the discussion with additional thought. If you enter "Good Post", which is fine, add why, or add an additional perspective. Discussion is a vital part of an online class, so this part of the course deserves your full participation. Also, your application of current events to these articles will make them even more relevant, and will greatly add to the discussion, and to the points you can earn. Since this is discussion among classmates, post early enough to allow that discussion, and any posts after **8:00PM** of the closing date will not earn points.

**Sample Assignment: GRMN2227**

**Assignment #1:** Comparative Cultural Reflection on Fritz Lang's *Metropolis* (1927)



Fritz Lang's *Metropolis* (1927) is considered by many to be the world's first "sci-fi" film.

Please use information from previous class readings, discussions and lectures to address the following questions in the form of a two-part reflective essay:

Part 1: Please describe the depiction of bodies in *Metropolis*! Where and when was this film created, and what do think this form of bodily representation says about the social values of this time and place? What does the depiction of bodies communicate about gender, class and health/sickness?

Part 2: Can you think of another, perhaps more modern film which reflects the style of bodily depiction in *Metropolis*? How does the socio-cultural context of this film differ? In what ways do you think *Metropolis* might have been culturally adapted to a different context? What does the depiction of bodies in this version communicate about gender, class and health/sickness?

**Essay Assessment Rubric:**

Please see the (also attached) essay assessment rubric. I consider this assignment a formative assignment and provide students the opportunity to revise their essay before I assign a final grade to the assignment.

# SEDIMENTARY ROCKS



## Lesson 7

### ***AT A GLANCE***

#### **Purpose**

#### **Learning Objectives**

#### **Materials Needed**

#### **Overview**

**Weathering**

**Clastic Sedimentary Rocks**

**Chemical Sedimentary Minerals and Rocks**

**Biochemical Sedimentary Rocks**

**Depositional Environments**

#### **Lab Exercises**

**Lab Exercise #1: *Grain Analysis***

**Lab Exercise #2: *Identification of Sedimentary Rocks***

#### **Online Activities**

#### **Quiz**

**Multiple Choice**

**Short Answer**

## Purpose

The activities in this lesson will lay the foundation for the understanding the processes of formation and importance of sedimentary rocks. Sedimentary rocks cover more than half of the land surface area of Earth and understanding the characteristics of sedimentary rocks is extremely important in unraveling Earth's history.

## Learning Objectives

*After completing this laboratory lesson, you will be able to:*

- Identify textural features of sedimentary rocks.
- Explain the process of sedimentary rock formation.
- Explain how to classify sedimentary rock samples.
- Describe how sedimentary rocks reveal information about ancient environments.

## Materials Needed

- ☐ 10X-power magnifying hand lens (in lab kit)
- ☐ Seven sedimentary rock specimens (in lab kit)
- ☐ Five bags of sedimentary grains labeled Bag A, Bag B, Bag C, Bag D, and Bag E (in lab kit)
- ☐ Common household lemon juice or lime juice
- ☐ White sheet of paper

## Overview

Sedimentary rocks form at or near Earth's surface; therefore, sedimentary rocks provide us with a record of Earth's history. The locations of ancient beaches, rivers, deserts, glaciers, and oceans can be determined by analyzing sedimentary rocks. In addition, the vast majority of all fossils are found in sedimentary rocks, and, as will be discussed in Lesson 9, much of our understanding of the history of life is based upon the diversity and changes in the fossil record.

Economically, sedimentary rocks contain many of the natural resources needed by modern society, not the least of which is energy resources. The primary source of energy in the world today, oil and natural gas, is stored within sedimentary rock layers until retrieved by an oil or gas well. The second most important source of energy, coal, is itself considered to be a sedimentary rock. Finally, our present supplies of uranium, the fuel used in most commercial nuclear power plants, are often extracted from deposits found in sedimentary rocks. In addition to energy, sedimentary rocks provide society with a wide variety of valuable and necessary metallic commodities such as the ores of iron bauxite for aluminum. Without sedimentary rocks, modern society would have a very different look than it does today.

Sedimentary rocks form from components that once belonged to other rocks. There are three major categories of sedimentary rocks: (1) clastic, (2) chemical, and (3) biochemical. They differ in the character of their components and the ways in which they form.

## Weathering

As seen in the rock cycle illustration in Lesson 6 (**Figure 6.1**), there is an intermediate step between earlier rocks and the processes that form sedimentary rocks: weathering. Weathering



is the process by which rocks are broken down into smaller particles or into their chemical components.

Mechanical weathering is the type of weathering that occurs when water, wind or ice break rock down into smaller particles, called clasts. The clasts are then carried away, most often by water, in the process of erosion or through downslope movement, such as landslides, due to gravity.

Chemical weathering occurs when the soluble components of rock dissolve in water. The water then carries away these soluble components while they are in solution. The dissolution of some chemical components in rock may leave behind some insoluble components. One of the most important insoluble products of chemical weathering is left behind when orthoclase feldspar is exposed to water; the potassium in the orthoclase easily enters into solution leaving behind the less soluble silicates that were in feldspar's framework structure. These silicates then assume a new sheet structure and become part of an important group called clay minerals. *Clay minerals should not be confused with the clay-sized particles discussed below.* Clay minerals play an important role in the character of some metamorphic rocks, to be discussed in Lesson 8.

## **Clastic Sedimentary Rocks**

Clastic sedimentary rocks are those composed of rock and mineral particles that have been cemented together. The rock particles are the result of weathering and are deposited as sediment, a term that includes both the clasts as well as loose or fragmental debris, such as leaf litter and other plant remains, and the shells of some marine organisms. All sediment has a source, or place of origin, where it was formed by physical or chemical weathering of the parent rock or by the life cycles of plants and animals. After sediment is created at the source, it is generally transported by water, ice, or wind to another location.

Changes in the energy of the water or wind carrying sediment will drop particles of various sizes along the way; for instance, a rushing stream is capable of carrying larger particles than a slow-moving stream. When a stream slows, some larger particles in the transported sediment will drop out to form a sedimentary deposit. By the time the stream reaches the ocean, it will have lost enough energy to deposit most of the sediment. A similar process of decreasing energy deposits sediments at shorelines; glaciers also pick up sediments and deposit them, although not in any particular order.

The deposition process often separates clasts according to their densities and grain sizes—a process known as sorting. A well-sorted sediment is composed of clasts that are similar sizes and/or densities whereas a poorly sorted sediment is composed of grains that vary widely in size and/or density (**Figure 7.1**). As will be discussed in Lesson 11, clasts tend to be well sorted when they've been deposited by wind, or by a body of water, such as a stream or river, in a lake or along an ocean shoreline. As discussed in Lesson 13, rocks deposited by glaciers are poorly sorted.

Sediment particle size, also referred to as grain size, is expressed in terms of its diameter:



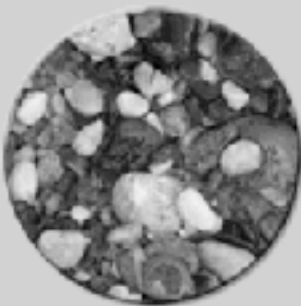




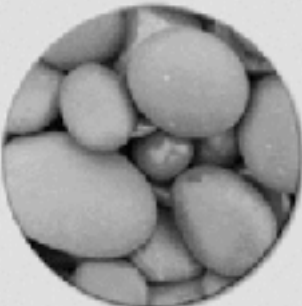


**Gravel** (very coarse-grained): grains larger than 2 mm in diameter (granules, pebbles, cobbles, boulders)

**Sand** (coarse-grained): grains from 1/16 mm to 2 mm in diameter

**Silt** (fine-grained): grains from 1/256 mm to 1/16 mm in diameter

**Clay** (fine-grained): grains less than 1/256 mm in diameter

Most silt particles can only be seen with a hand lens. Clay-sized particles are so tiny they can only be seen with a microscope.

Grain Size	Grain Shape	Grain Arrangement
 <p><b>Gravel</b> Grains visible; larger than sand</p>	 <p><b>Angular</b></p>	 <p><b>Poorly Sorted</b></p>
 <p><b>Sand</b> Coarse-grained: grains from 1/16 mm-2 mm in diameter</p>	 <p><b>Rounded</b></p>	 <p><b>Moderately Sorted</b></p>
 <p><b>Silt</b> Grains barely visible; feels gritty</p>	 <p><b>Well Rounded</b></p>	 <p><b>Well Sorted</b></p>
 <p><b>Clay</b> Grains not visible; feels smooth; dull luster on freshly broken surface</p>		

**Figure 7.1 Textural Features of Sedimentary Rocks.** Illustration by Marie Hulett using photos as follows: (gravel) Shutterstock 62432644, credit Imageman; (sand) Shutterstock 60560716, credit jeka84; (silt) Shutterstock 41423524, credit jeka84; (clay) Shutterstock 57422938, credit dutourdumonde; (angular) Shutterstock 16544482, credit Eugene F; (rounded) Shutterstock 59134291, credit Wutthichai; (well rounded) Shutterstock 5455889, credit Olaf Speier; (poorly sorted) Shutterstock 57774088, credit javi\_indy; (moderately sorted) Shutterstock 58350871, credit Karin Wabbro; (well sorted) Shutterstock 59584597, credit Mirec.

Grains are also classified by their shape. Particles are generally angular when first created by weathering, and are subject to abrasion while they are being transported. Those particles that have traveled a long distance or for a long time become well rounded, whereas particles that

have not been transported very far or for very long will remain more angular. Consequently, the shape of the particle gives geologists an indication of how far or how long that particle has traveled from its source.

Once deposited, sediments may again be picked up by wind, water, or glacial ice to be further transported, or they may be buried by layers of additional deposits of sediment. If they are buried deeply enough, they undergo lithification, the process by which the clasts in sediments form clastic sedimentary rock. Lithification is a two-step process:

- **Compaction:** As sediments are buried, the weight of overlying layers creates a compressive force that pushes the clasts closer together, reducing the pore space between them.
- **Cementation:** If clasts are fine or very fine, the pressure of compaction may be enough for them to cling together to form rock. If the clasts are sand-sized or larger, they may be cemented together when dissolved minerals, typically calcite, silica, or iron oxide, crystallize and glue the clasts together.





The resulting rock body referred to as a rock bed.


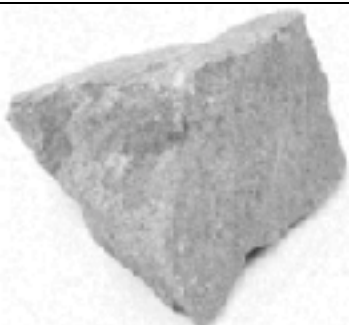


Clastic sedimentary rocks are categorized by the size of the particles composing them, their shape (whether they are rounded or angular), and, to a lesser extent, their mineral composition. For instance, sandstone gains its name from the sand-sized particles that compose it. Quartz sandstone comes in a variety of colors often given to it by the minerals acting as cement; for instance, hematite (iron oxide) cement gives quartz sandstone a reddish-brown color and a cement containing manganese gives a purplish hue. Calcite cement generally results in a lighter color (and may make it fizz in an acid test!)

85 percent of all sandstone is composed of sand-sized grains of quartz. When sandstone contains less than 85 percent quartz, that fact is reflected in its name: arkose is sandstone that contains an appreciable proportion of feldspar clasts (recognizable through a hand lens by their cleavage), and graywacke is sandstone that contains a large proportion of clay minerals.

Another abundant clastic sedimentary rock is shale, which is composed of clay-sized particles of quartz and clay minerals. The clasts in shale are far too small to see, but the sheet structure of the clay minerals composing it cause it to break along parallel planes forming sheets of rock, a property called fissility. Shale is the only fissile sedimentary rock.

**Figure 7.2** summarizes the most common clastic sedimentary rocks.

Rock	Clast size	Composition & Texture
 <p data-bbox="461 606 643 636"><b>Conglomerate</b></p>	Gravel-sized (> 2 mm)	Well-rounded gravel-sized clasts within a matrix of cemented sand- and silt-sized particles.
 <p data-bbox="502 1001 603 1031"><b>Breccia</b></p>	Sand-sized (1/16 mm–2 mm)	Angular, gravel-sized clasts within a matrix of cemented sand- and silt-sized particles.
 <p data-bbox="437 1404 665 1434"><b>Quartz Sandstone</b></p>	Sand-sized (1/16 mm–2 mm)	Sand-sized clasts of quartz cemented by calcite, silica, or iron oxide.
 <p data-bbox="504 1816 596 1845"><b>Arkose</b></p>	Sand-sized (1/16 mm–2 mm)	Sand-sized clasts of quartz and feldspar cemented by calcite, silica, or iron oxide.

Rock	Clast size	Composition & Texture
 <p data-bbox="491 583 628 615"><b>Graywacke</b></p>	<p data-bbox="963 237 1147 296">Sand-sized (1/16 mm–2 mm)</p>	<p data-bbox="1198 237 1418 401">Sand-sized clasts of quartz mixed with clay minerals and cemented by calcite, silica, or iron oxide.</p>
 <p data-bbox="502 947 620 978"><b>Siltstone</b></p>	<p data-bbox="940 621 1171 680">Silt-sized (1/256 mm–1/16 mm)</p>	<p data-bbox="1209 621 1412 705">Silt-sized clasts of quartz mixed with clay minerals.</p>
 <p data-bbox="496 1350 627 1381"><b>Mudstone</b></p>	<p data-bbox="981 982 1129 1041">Clay-sized (<math>&lt; 1/256</math> mm)</p>	<p data-bbox="1198 982 1418 1146">Mixture of clay-sized particles of quartz and clay minerals compacted in such a way that they are not fissile.</p>
 <p data-bbox="523 1722 595 1753"><b>Shale</b></p>	<p data-bbox="981 1381 1129 1440">Clay-sized (<math>&lt; 1/256</math> mm)</p>	<p data-bbox="1198 1381 1418 1545">Mixture of clay-sized particles of quartz and clay minerals compacted in such a way that they are fissile.</p>

**Figure 7.2 Common Clastic Sedimentary Rocks.** Photos: Conglomerate, ©Science VU/Visuals Unlimited, Inc.; Breccia, Shutterstock 56061205, credit Tyler Boyes; Quartz sandstone, Shutterstock 56061262, credit Tyler Boyes; Arkose, courtesy of Denise J. Mayes; Graywacke, courtesy of David Burgess; Siltstone, Shutterstock 56068867, credit Tyler Boyes; Mudstone, Shutterstock 1312303, credit Joe Goodson; Shale, released into the public domain via Wikipedia by the photographer.

## Chemical Sedimentary Minerals and Rocks

Dissolved minerals deposited in water through chemical weathering may once again come out of solution to be deposited; the result is a chemical sedimentary mineral or, if there is more than one mineral in the new deposit, a chemical sedimentary rock. In some cases, the minerals crystallize as the water in which they have been dissolved evaporates. These deposits are called evaporites; rock salt (which is mainly halite), gyprock (which is mainly gypsum), and borax are examples of evaporites.








In some cases, the dissolved minerals enter into a reaction with other substances within the water to form an insoluble substance that then drops out of the solution; this process is called precipitation and the insoluble substance is called a precipitate. The mineral calcite is one such precipitate; calcite's chemical name is calcium carbonate ( $\text{CaCO}_3$ ). The rock formed from a mix of primarily calcite along with other minerals is called limestone. Limestone is a very common rock; it is light gray to brown in color and can be fine-grained to coarse-grained. Travertine is a beautiful form of limestone that precipitates out of water near hot springs and inside caverns. Impurities give travertine a banded appearance, and it is frequently sprinkled with tiny pores formed as the calcite hardened around organisms that lived in the hot springs.

If the calcite precipitates in agitated water, it might form layers around a grain of sand or a shell fragment to form a tiny calcite sphere called an oolite. The rock composed of oolites is called oolitic limestone. Most limestone, however, has a biochemical origin; those varieties are discussed below.

Dolomite is a common chemical sedimentary mineral that is related to limestone in that it is similar in chemical composition. Most dolomite forms as magnesium-rich groundwater reacts with previously deposited  $\text{CaCO}_3$  (calcite) to form  $\text{CaMg}(\text{CO}_3)_2$ . When mixed with some other minerals, dolomite forms dolostone. Dolomite has many of the same properties as calcite, except it fizzes only weakly when an acid test is conducted on it, and then only if the acid is warm and the dolomite is powdered.

Silica is another dissolved substance that often precipitates out of a solution. Like calcite, silica often acts as a cement for clastic sedimentary rocks. However, also like calcite, silica can form solid masses, in which case it's called chert. Some chert is composed of microcrystalline silica, but many varieties are amorphous, meaning that there are no visible particles or crystals, even with a hand lens. Chert varieties include flint, jasper, and agate.

**Figure 7.3** summarizes the properties of the most common chemical sedimentary rocks.

Rock	Texture	Composition & Properties
 <b>Travertine</b>	Fine to coarse texture, crystalline	Calcite plus impurities that often give it a banded appearance. Fizzes in an acid test.
 <b>Limestone</b>	Fine to coarse texture	Predominantly calcite as well as other minerals appearing with it. Limestone is a common rock and comes in many colors and a variety of texture. Color varies from light gray to brown. Fizzes in an acid test.
 <b>Oolitic Limestone</b>	Coarse, spherical texture	Calcite oolites (spheres) formed around grains of sand or shell fragments. Fizzes in an acid test.
 <b>Dolostone</b>	Coarse texture	Composed of dolomite and impurities; fizzes weakly when powdered.
 <b>Rock Salt</b>	Coarse texture	Halite mixed with impurities; has cleavage and salty taste of halite.
 <b>Gyprock</b>	Fine to coarse texture	Gypsum mixed with impurities; has the cleavage and hardness of gypsum.
 <b>Chert</b>	Very fine texture	Silica mixed with impurities that give it various colors; jasper, opal, chalcedony, agate, and flint are forms of chert; amorphous; has the conchoidal fracture and hardness of quartz.

**Figure 7.3 Common Chemical Sedimentary Rocks.** Photos: Travertine, Shutterstock 41730853, credit Oxi; Limestone, courtesy of Susan Wilcox; Oolitic limestone, courtesy of USGS; Dolostone, Shutterstock 56068813, credit Tyler Boyes; Rock salt, Shutterstock 38008114, credit Fotogiunta; Gyprock, Shutterstock 45129724, credit Terry Davis; Chert, Shutterstock 56068792, credit Tyler Boyes.



## Biochemical Sedimentary Rocks

Biochemical sedimentary rocks form through much the same process as clastic sedimentary rocks; the difference is that the sediments forming them have an organic origin. Biochemical limestone, for instance, is composed of the remains of marine organisms that extract calcium carbonate from seawater in order to form their shells. When they die, the shells and other remains sink to the sea bottom where they accumulate into layers that subsequently lithify.



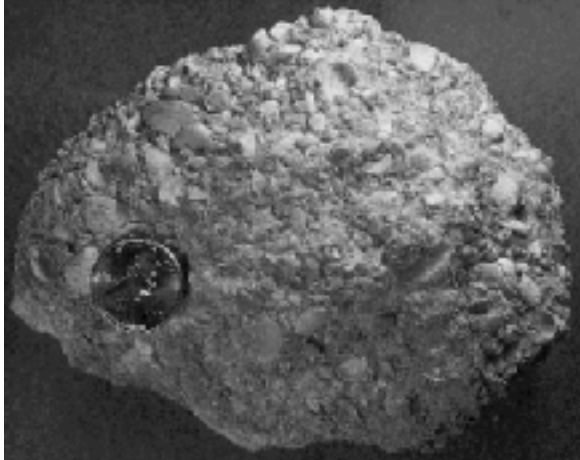
Most limestone deposits are biochemical in origin, and are classified based on texture and origin of the components. Chalk is a soft limestone with a very fine texture because it is composed of the remains of the fossils microscopic marine organisms. It is usually white or light gray in color, has particles of a uniformly fine size, and is not well cemented so particles easily rub off. You have probably used chalk to write on a classroom blackboard. Coquina is composed of larger shells and pieces of broken shells poorly cemented together. Fossiliferous limestone contains an abundance of fossils, generally of the exoskeletons of the organisms that secreted the calcium carbonate forming the limestone; the fossils are held together in a fine-grained matrix. Sometimes the fossils are in the form of molds that appear as tiny holes in the limestone.

Whereas limestone is composed of marine organisms that secrete calcium carbonate, biochemical chert is composed of silica that is secreted by other marine organisms. Diatoms and some other marine microorganisms form their exoskeletons from silica; layers of their remains accumulate and compact to form biochemical chert.




An important biochemical rock is coal, which forms from plant material deposited in certain swamp environments where the water is too acidic for normal decomposition to occur. Consequently, the plant materials are preserved and buried. Over time, the pressure from overlying layers compacts the deposit to form peat, a compressed form of plant materials often used for fuel. Further compaction removes some of the noncarbon substances to form lignite, a soft brown form of coal that is considered to be a sedimentary rock. Continuing compression over time as a result of even deeper burial further compacts the lignite and forces out most of the noncarbon substances to form bituminous coal, a biochemical sedimentary rock that is mostly carbon.

**Figure 7.4** summarizes some of the most common biochemical sedimentary rocks.



Rock	Texture	Composition & Properties
 <p style="text-align: center;"><b>Chalk</b></p>	Fine texture	Microscopic fossils and cemented skeletal remains composed of calcium carbonate; fizzes freely in an acid test.
 <p style="text-align: center;"><b>Fossiliferous Limestone</b></p>	Coarse texture	Abundant invertebrate fossils large enough to be visible with a hand lens in a fine-grained calcite matrix; fizzes freely in an acid test.
 <p style="text-align: center;"><b>Coquina</b></p>	Very coarse grain	Shells and shell fragments poorly cemented together by calcite; fizzes freely in an acid test.

**Figure 7.4 Common Biochemical Sedimentary Rocks.** Photos: Chalk, Shutterstock 56061232, credit Tyler Boyes; Fossiliferous limestone, Shutterstock 56061202, credit Tyler Boyes; Coquina, © Albert Copley/Visuals Unlimited, Inc.

Rock	Texture	Composition & Properties
 <p data-bbox="459 688 694 716"><b>Biochemical Chert</b></p>	<p data-bbox="986 207 1144 260">Very fine grain or amorphous</p>	<p data-bbox="1177 207 1433 344">Silica remains of microscopic marine organisms; has the conchoidal fracture and hardness of quartz.</p>
 <p data-bbox="531 1199 622 1226"><b>Lignite</b></p>	<p data-bbox="986 722 1144 774">Fine to coarse texture</p>	<p data-bbox="1166 722 1444 858">A soft rock composed of brown to black carbonized plant remains that crumble easily and are identifiable under a hand lens.</p>
 <p data-bbox="469 1734 687 1761"><b>Bituminous Coal</b></p>	<p data-bbox="986 1253 1144 1306">Fine to coarse texture</p>	<p data-bbox="1166 1253 1444 1390">Black, harder than lignite but still crumbly, with carbonized plant remains identifiable under a hand lens; conchoidal fracture.</p>

**Figure 7.4 Common Biochemical Sedimentary Rocks. (cont.)** Photos: Biochemical chert, Shutterstock 40650169, credit Yury Kosourov; Lignite, courtesy of USGS; Bituminous coal, Shutterstock 56068891, credit Tyler Boyes.

## Depositional Environments

Each type of sedimentary rock is formed from sediment deposited in a specific type of environment. The sediments that form clastic sedimentary rocks are most often carried by moving water and wind, then deposited when the water or wind loses energy. As discussed earlier in this lesson, streams deposit sediments as they lose energy. A rushing stream first drops the gravel-sized particles, but continues to carry the smaller particles. As it loses energy, it next drops the sand-sized particles, followed by the silt-sized particles and finally the clay-sized particles. Ocean waves and shoreline currents deposit sediments in the same order, based on their energy. Therefore, a deposit of well-sorted gravels speaks of a high-energy depositional environment; perhaps a rushing stream or an energetic shoreline. Well-sorted silt- or clay-sized particles speak of calm waters with low enough energy for these particles to settle out; perhaps a calm lake, marsh, or lagoon. Poorly sorted deposits, as noted earlier, are typical of deposits left behind by glaciers. Or they may have been deposited by a landslide or, perhaps, a turbidity current, an ocean current that transports large amounts of sediment down an underwater slope. In each of the latter cases, the sediment has been quickly dumped.

Clastic sedimentary rocks may also preserve features created by the environment in which they formed. Waves in shallow water can create ripples that are subsequently preserved in a sedimentary layer; winds and water can leave marks called cross bedding in the deposit that extends parallel to the direction of their flow; mud composed of silt- or clay-sized particles can dry and crack only to be covered by another layer that then preserves the mud cracks. Learning to notice, recognize, and interpret such structures is one of the skills geologists apply in reading rocks to determine the history of an area.

Chemical and biochemical sedimentary rocks also leave clues to the past. Evaporites form when a body of water dries up, leaving behind previously dissolved minerals; thus a rock salt or gyp rock deposit speaks of the former presence of ancient sea or lake. Biochemical limestone forms at the bottom of warm, shallow seas or along shorelines, whereas biochemical chert can form from organisms that prefer colder waters.

Here is a partial summary of what sedimentary rocks can reveal about an area's history:

- Limestone most often indicates that the area was once a warm, shallow ocean.
- Chert can indicate the former presence of an ocean or a deep lake.
- Shale indicates that the area was once covered by waters calm enough for fine sediments to deposit; mudflats or deep ocean are two environments in which fine particles may settle.
- Coal or organic-rich shale indicate the area was once a swamp.
- Sandstone tells a geologist that the area was probably the site of a river, a beach, or desert, since that is where large amounts of sand accumulate. Arkose would be typical of a desert environment because it forms in dry environments.
- Cross bedding in different directions indicates a wind deposit of sand, typical of a desert environment or sand dune at a beach.
- Cross bedding in a consistent direction indicates a stream deposit; comparing cross beds across a region can help geologist to reconstruct an ancient river or delta system.
- Symmetrical ripple marks indicate a shallow coastal area, whereas asymmetrical ripple marks point to deposition in a flowing stream.

- Mud cracks tell a geologist that the area was probably a warm, dry region next to an ocean or an inland lake that periodically flooded and then dried.
- Graded beds containing layers of smaller and smaller well-sorted clasts can indicate a former lake bed, or perhaps an area of the ocean floor that was later uplifted.
- Conglomerate indicates a high-energy environment, like a rushing stream or beach with pounding waves. The energy had to be high enough for gravels to be transported to the area.
- Evaporites can indicate the former presence of a shallow ocean or an isolated basin, like a desert lake, that subsequently dried up.

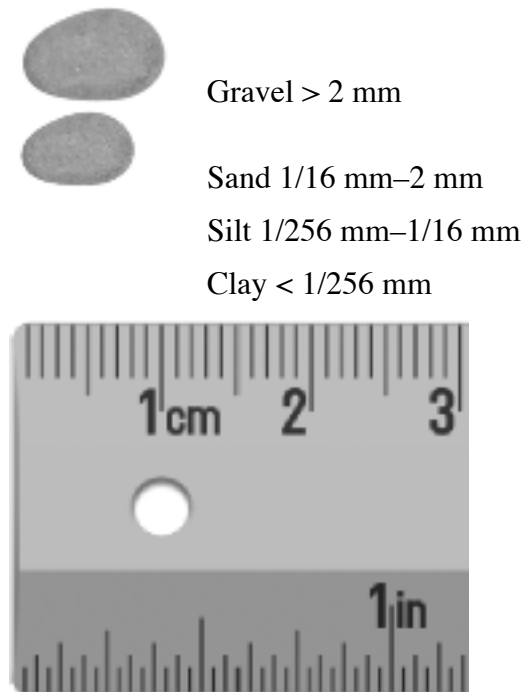
Fossils add to the clues provided by sedimentary rocks. As will be discussed in Lesson 9, fossils record Earth's history and the types of environments that existed in a region over time.

## Lab Exercises

### Lab Exercise #1: Grain Analysis

Clastic sedimentary rocks are formed from clasts, also called grains, that are deposited in a variety of environments. The environment determines not only the size of the clasts deposited but also whether they are well sorted or poorly sorted.

In this laboratory exercise, you'll lay a foundation for the identification of clastic sedimentary rocks by analyzing samples of sediment (Bags A through E in your lab kit) for grain size and sorting. In doing so, you'll learn how to better determine grain size in clastic sedimentary rocks, a key clue to their identity.



**Figure 7.5 Relative Clast Size (Enlarged).** Photos: Rock image, Shutterstock 76689523, credit schankz; Ruler showing clast size, Shutterstock 72147730, credit Alhovik.

**Figure 7.5** above is an enlarged illustration that will give you an idea of the relative size of the smallest possible gravel clast compared to a typical sand grain. Note that even though **Figure 7.5** is enlarged, silt- and clay-sized particles are still too small to be seen.

The ruler in your lab kit includes markings for millimeters. Use the ruler to determine the clast size of visible grains, using your hand lens as necessary. When you sort your clast samples, you will need to use the hand lens to measure silt particles. It's possible to isolate silt-sized particles by spreading a sample on the white paper, then pouring the sample back into the bag. The "dust" left on the white paper will be mostly silt-sized.

Clay-sized particles can only be seen through a microscope. One way to identify silt- and clay-sized particles is by feel. Silt-sized clasts will feel gritty whereas clay-sized particles will feel smooth and silky, descriptions that will also apply to the sedimentary rocks you will identify in **Lab Exercise #2**.

As you study each bag of sedimentary clasts, record your observations in the appropriate cells of the chart **Figure 7.6** or on a separate piece of paper. Make sure to save your results. You will use the data to answer the questions at the end of this lesson.

### **Instructions**

- Step 1:** Retrieve Bag A, Bag B, Bag C, Bag D, and Bag E from your lab kit. Each bag contains a different sample of sedimentary clasts.
- Step 2:** Place a white sheet of paper on a flat surface.
- Step 3:** Pour a sample of the contents of Bag A on the white sheet of paper.
- Step 4:** Analyze the sediment sample for clast size. Separate out clasts that are representative of the largest and smallest sizes, then measure them, if possible, using the hand lens as necessary. Enter the range into Column 1 of **Figure 7.6**.
- Step 5:** Analyze the sediment sample for clast shape. Examine at least five clasts, using your hand lens if necessary, and referring to **Figure 7.1 Textural Features of Sedimentary Rocks** to help you. Are the clasts well-rounded, rounded, or angular? Record your observation in Column 2 of **Figure 7.6**.
- Step 6:** Analyze the sediment sample for sorting. Are the clasts about the same size? Or is there a wide range of sizes? Determine whether the sample is well-sorted, moderately sorted or poorly sorted, referring to **Figure 7.1** to help you. Record your observation in Column 3 of **Figure 7.6**.
- Step 7:** Determine whether the sample is clay, silt, sand, gravel, or some combination of these. Enter your determination in Column 4 of **Figure 7.6**.
- Step 8:** Repeat the process for Bag B, Bag C, Bag D, and then Bag E. Record your observations in **Figure 7.6** below.

Sample	Column 1: Clast Size	Column 2: Clast Shape	Column 3: Sorting	Column 4: Identification
Bag A				
Bag B				
Bag C				
Bag D				
Bag E				

**Figure 7.6 Grain Analysis Chart.**

### **Lab Exercise #2: Identification of Sedimentary Rocks**

In this laboratory exercise, you will identify some common sedimentary rocks based on their texture and composition. Feel free to download the Sedimentary Rocks Photo Guide from the online supplement to help you make your identification.

#### **Instructions**

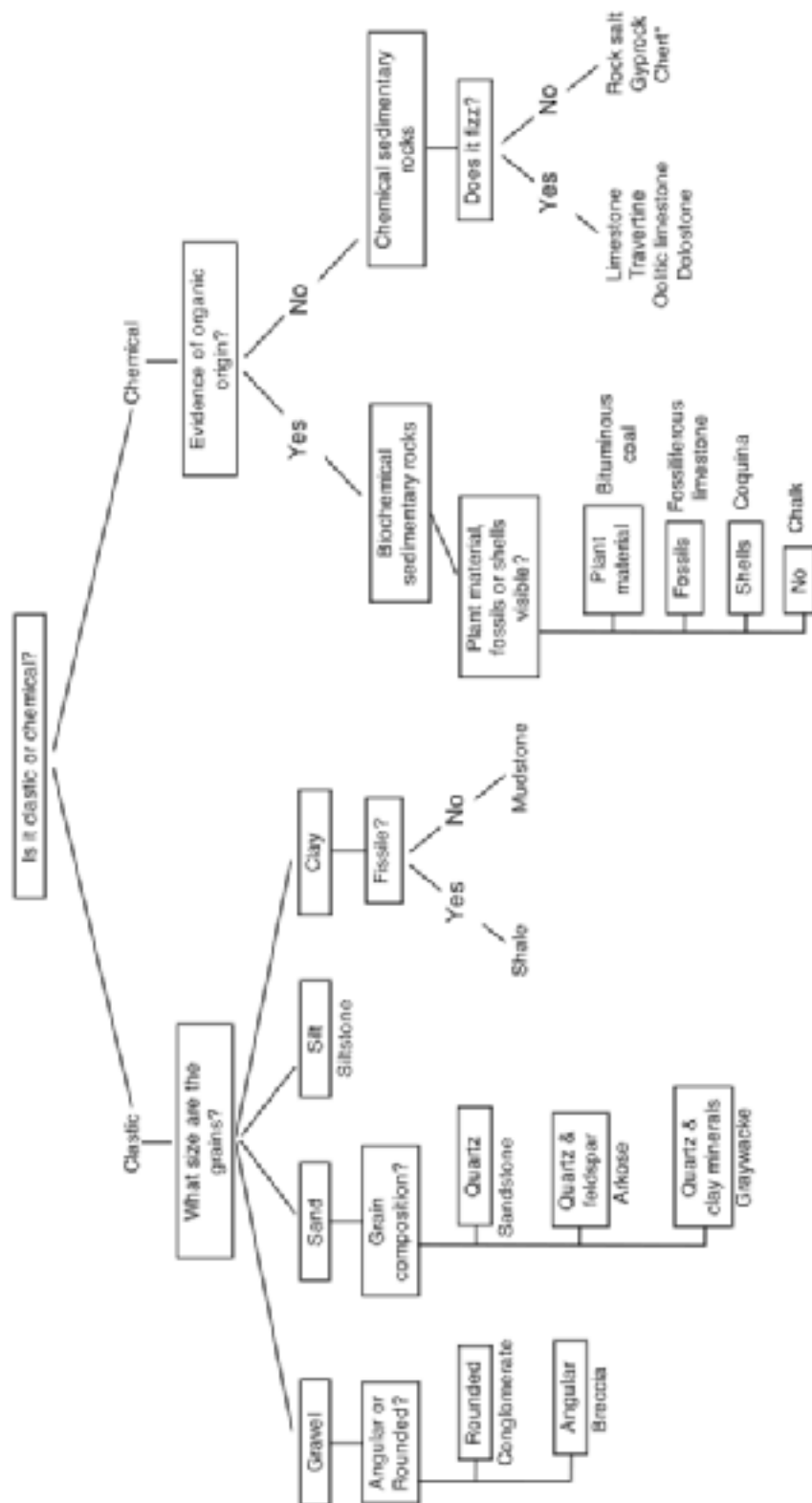
- Step 1:** Retrieve the bag labeled Lab #7 Sedimentary Rock Samples from your lab kit, and place the specimens (numbered 11 through 17) on a white sheet of paper.
- Step 2:** Determine the identity of each rock, then write its name in the proper cell of **Figure 7.7**.

The flow chart in **Figure 7.8** will help you to narrow down the possibilities. Feel free to conduct tests you learned in Lesson 5 to help you identify mineral components. If you decide to conduct an acid test, rinse the sample in water and dry it first so that you don't get a false positive result from dust in the bag that may have settled on the sample.

Sample #	Identification
#11	
#12	
#13	
#14	
#15	
#16	
#17	

**Figure 7.7 Sedimentary Rock Identification Chart.**

## Sedimentary Rock ID Flow Chart



\*Note that chert also has organic origins; however, the crystals are so tiny, it's unlikely you will see evidence of an organic origin.

**Figure 7.8 Sedimentary Rock Identification Flow Chart.** Illustration by Susan Wilcox.

## Online Activities



Per your instructor's directions, go to the online supplement for this lab and complete the activities assigned. Viewing the online videos will help you to complete the quiz.

## Quiz

### Multiple Choice

*Questions 1 through 5 are based on Lab Exercise #1: Grain Analysis.*

1. Bag A contains
  - a. well-sorted sand.
  - b. clay.
  - c. a moderately sorted mix of sand and silt.
  - d. a poorly sorted mix of gravel and sand.
2. Bag B contains
  - a. well-sorted sand.
  - b. clay.
  - c. a poorly sorted mix of sand and silt.
  - d. a poorly sorted mix of gravel and sand.
3. Bag C contains
  - a. well-sorted clay.
  - b. well-sorted gravel (with some sand from transport).
  - c. poorly sorted sand (with some silt from transport).
  - d. a poorly sorted mix of gravel and sand.
4. Bag D contains
  - a. clay.
  - b. well-sorted gravel.
  - c. a poorly sorted mix of sand and silt.
  - d. a poorly sorted mix of gravel and sand.
5. Bag E contains
  - a. well-sorted sand.
  - b. well-sorted gravel.
  - c. a poorly sorted mix of sand and silt.
  - d. a poorly sorted mix of gravel, sand, and silt.



***Questions 6 through 20 are based on Lab Exercise #2: Identification of Sedimentary Rocks.***

6. The mineral grains in Specimen #11 are
  - a. biotite mica.
  - b. feldspar.
  - c. quartz.
  - d. hornblende.
7. Specimen #11 is
  - a. chert.
  - b. shale.
  - c. quartz sandstone.
  - d. arkose.
8. Specimen #12 has black carbonized plant remains. What is specimen #12?
  - a. fossiliferous limestone
  - b. bituminous coal
  - c. graywacke
  - d. rock salt
9. Based on the clasts in Specimen #13, the deposition environment might have been
  - a. sand dunes.
  - b. a warm, shallow lagoon.
  - c. a lake bottom.
  - d. a river channel.
10. The largest grain-size dimension for Specimen #13 is
  - a. greater than 2 mm in diameter.
  - b. between 1/16 mm and 2 mm in diameter.
  - c. between 1/256 mm and 1/16 mm in diameter.
  - d. less than 1/256 mm in diameter.
11. Specimen #13 is
  - a. chert.
  - b. shale.
  - c. fossiliferous limestone.
  - d. conglomerate.
12. Specimen #14 contains obvious
  - a. plant material.
  - b. mammalian fossils.
  - c. fossil molds from tiny invertebrates.
  - d. mollusk fossils.

13. Specimen #14 is
  - a. sandstone.
  - b. conglomerate.
  - c. fossiliferous limestone.
  - d. gyprock.
14. Specimen #15
  - a. is fissile.
  - b. contains visible shell fragments.
  - c. fizzes during an acid test.
  - d. feels gritty to the touch.
15. Specimen #15 is
  - a. quartz chert.
  - b. shale.
  - c. limestone.
  - d. conglomerate.
16. Which of the following is a diagnostic feature of Specimen #17?
  - a. It fizzes when tested with acid.
  - b. It is a very coarse-grained sedimentary rock.
  - c. It is a fissile sedimentary rock.
  - d. It is obviously the product of a high-energy depositional environment.
17. Specimen #17 is
  - a. conglomerate.
  - b. gyprock.
  - c. quartz chert.
  - d. shale.
18. Specimen #16 is composed of
  - a. silica.
  - b. calcium carbonate.
  - c. grains of sand-sized particles.
  - d. gypsum.
19. Which of the following is a diagnostic feature of Specimen #16?
  - a. It effervesces when tested with acid.
  - b. It is a very coarse-grained sedimentary rock.
  - c. It is a fine-grained sedimentary rock.
  - d. It is amorphous.

20. Specimen #16 is
- shale.
  - chalk.
  - sandstone.
  - chert.
21. \_\_\_\_\_ gives quartz sandstone its color.
- The mineral content of its clasts
  - The mineral content of its cement
  - Fossils
  - Plant remains
22. The most common chemical sedimentary rocks are largely composed of what type of mineral?
- calcite and silica
  - gypsum and halite
  - borax and gypsum
  - quartz and borax
23. The process that breaks rock down into particles or its chemical components is called
- compaction.
  - cementation.
  - weathering.
  - lithification.
24. The process by which soluble minerals are dissolved by water is called
- mechanical weathering.
  - chemical weathering.
  - precipitation.
  - lithification.
25. The two processes by which chemical sedimentary rocks are deposited are
- compaction and cementation.
  - evaporation and precipitation.
  - erosion and transportation.
  - weathering and lithification.
26. The fine sediments that form shale are typically deposited
- by the surf at a beach.
  - as a glacier retreats.
  - in a high-energy environment like a rushing stream.
  - in a low-energy environment like a calm lake.

27. How can one distinguish breccia from conglomerate?
- Breccia contains angular clasts and conglomerate contains rounded clasts.
  - Breccia contains rounded clasts and conglomerate contains angular clasts.
  - Different minerals cement breccia than cement conglomerate.
  - Breccia contains sand and conglomerate contains silt.

### **Short Answer**

1. When rocks weather into particles, most of the rocks don't stay in place. Name three ways that weathered rock particles are carried away.
2. Geologists classify sedimentary rock particles based upon their grain size. List the four sizes of particles in order from smallest to largest.
3. Name the two processes by which sediment is converted into rock and provide a definition for each process.
4. Explain the sequence that produces the sedimentary rock, bituminous coal.
5. Give two examples of evaporite minerals, and explain how they are deposited.
6. Explain why limestone can be considered both a chemical and biochemical sedimentary rock.

#### **Labwork 4**

APA-style research report on the human study we collaboratively designed and ran:  
Humorous text content improves source attributions during Zoom recitations

Write APA-style research report (with Abstract, Introduction, Method, Results, Discussion, References, and Tables and/or Figures section(s)) on the text recitation study we ran over Zoom on Feb. 11 and 18.

To plan your report, refer back to the steps in the study analysis activity we performed together in lab class:

- Step 1: State a research question based on "how much" or "to what extent" a factor changes an outcome.
- Step 2: How were our variables operationalized? What procedures were involved, and what do scores mean?
- Step 3: Look at the reorganized data on Canvas and calculate the point estimate and confidence interval for the difference between experimental conditions.
- Step 4: Interpret the results in the context of the research question
- Step 5: As possible, if you were to conduct such a study again, how would you meta-analyze the results?

In Labwork 3 you did library searches for background sources that you will use and cite in this Reference section (in APA style).

To review the structure of an APA-style research report, read in Morling textbook supplementary sections: pp. 506-524 (3rd edition; pp. 488-506, 2nd ed.) and the example paper through p. 539. Don't forget to look up the basics on the APA style of making in-line citations.

See the rubric below for the required components of each section. Use the APA style checklist to check your work.

# Abstract

## Intro

## Method

## Results

## Disc

Criteria		Ratings						Pts	
Doc formatting	25 pts Full Marks	19 pts Rating Description	13 pts Rating Description		7 pts Rating Description		0 pts No Marks	25 pts	
A:Prob	1 pts Full Marks			0 pts No Marks				1 pts	
A:Partic chars	1 pts Full Marks			0 pts No Marks				1 pts	
A:Essen method	1 pts Full Marks			0 pts No Marks				1 pts	
A:Basic finding sz confid stat sig	3 pts Compl descr & infer		2 pts Some gap		1 pts Fell short		0 pts No Marks	3 pts	
A:Conclusion & Implication	2 pts Full Marks		1 pts Partial		0 pts No Marks			2 pts	
I:Bkgd theory explain	4 pts Insight	3 pts Mastery	2 pts Smthg unclear		1 pts Superficial		0 pts No Marks	4 pts	
I:Aim stated	1 pts Full Marks			0 pts No Marks				1 pts	
I:Hypoth clear & operationalized	5 pts Fit design objctv	4 pts Clear & testable	3 pts Smthg unclear / weak		2 pts Major concern	1 pts Vague	0 pts No Marks	5 pts	
I: Prediction justif	5 pts Clear support docd	4 pts Lack some specif	3 pts Some intuit or general		2 pts Counterintuit	1 pts Does not follow	0 pts No Marks	5 pts	
M: Design IV & DV clear & operat	4 pts Both strong constructs		3 pts One gap	2 pts Major concern		1 pts Unclear	0 pts No Marks	4 pts	
M: Design approp to aim	5 pts Validities prioritizd	4 pts Some weakness	3 pts Oversights	2 pts Major prob	1 pts Inapprop	0 pts No Marks		5 pts	
M: Participants	4 pts Age sex gps recruit		2 pts Clumsy gap	1 pts Minimal	0 pts Major prob		0 pts No Marks	4 pts	
M: Proced replicable	2 pts Every detail needed		1 pts Smthg hard to replicate			0 pts No Marks		2 pts	
R:Stated, follow aim	3 pts Clear, reflect aim		2 pts State & accurate		1 pts Smthg irrel		0 pts No Marks	3 pts	
R:Infer & Descr stats	5 pts Full Marks	4 pts Some gap	3 pts Explain fell short	2 pts Some inapprop		1 pts Unclear use	0 pts No Marks	5 pts	
R:Table or graph	4 pts Relations artful		3 pts Basic mastery	2 pts Somethg unclear		1 pts Key missing	0 pts No Marks	4 pts	
R:Discuss exper diffs	3 pts Power in summary		2 pts Meets expectations		1 pts Some gap or wrong		0.5 pts Minimal	0 pts No Marks	3 pts
Fit result to bckgd theory	3 pts New insight		2 pts Basic mastery		1 pts Superficial		0 pts No Marks		3 pts
Eval the study	4 pts Rigorous analys		3 pts Some hand wave		2 pts Some irrelev or gap		1 pts Straw man	0 pts No Marks	4 pts
Future suggestions	5 pts Poten result means		4 pts Test idea only	3 pts Need a test	2 pts Unrealist	1 pts Minimal	0 pts No Marks	5 pts	
Writing style	10 pts Artful	8 pts Clear, concise	6 pts Accurate	4 pts Some major issue		2 pts Needs edit on 1+ levs		0 pts No Marks	10 pts
Total Points: 100									

## Assignment / MUSC 1130: Music Appreciation: Western Music

Due to the COVID-19 virus, it would be almost impossible to attend this assignment's live performance. However, due to technology, you can now Stream Live Performances of your choice. I am providing some links below for you to look at to choose your type of music. However, since we are talking about Rock and Roll, I would love to GOOGLE Free Streaming Concerts and see what you can find. You can still review a concert from the privacy of your own home. I know it is not like the real things but find something you like, turn up the sound and have a good time. If you are having trouble, please let me know in a course message.

1. ATTEND A LIVE MUSIC EVENT OF YOUR CHOOSING. SAVE THE TICKET OR PROGRAM. This can include a symphony (**the Roswell Symphony** is super cheap for students, might even be free?), a concert, a live music event at a local coffee shop, the **ENMU-R Fall Musical** (I think It's \$5 for ENMU-R students?), or any other musical event. If you are not sure it will count, ask me, and I will let you know.

2. WRITE A TWO PAGE, DOUBLE SPACED CRITIQUE (12 pt font). This is similar to your discussion posts; you need to discuss the music, the instruments, the style, the rhythm, the performances, and history involved, any composers involved, if you like it you need to support your opinion with information, the same goes if you did not like it. Even if you see Kelly Clarkson, you have to critique it appropriately suitable to what you are learning in this course. You must use applicable terms, musical descriptors, analysis of tone, rhythm, style, lyrics, instruments, time period, artist, etc. You must support your opinions of the music/performance with precise information and appropriate educational reasoning. I do not want two pages of you hating on something for no good reason. You must:

- Name the Band, Singer, Composer
- Date of the Piece (especially if it's classical, and if it's part of a specific time period, i.e., Roaring 20's)
- Must provide examples and vocabulary for Rhythm, Texture, Dynamics, Pitch, Form, Tempo, and Timbre.
- Must provide specific moments within the concert or piece that moved you and why (use your vocabulary from the book)
- **Attach ticket stub or concert program.**

Please be thoughtful, constructive, and honest with your responses.

<https://www.moshcam.com/>

<https://www.baeblemusic.com/>

[https://www.google.com/search?rlz=1C1GCEA\\_enUS880US880&sxsrf=ALeKk020QmVCvfHi3vKd2VkCY0O30B2yqw%3A1584746581640&ei=VVB1XrTJJo-yggfv1IOgAw&q=free+concert+streaming+sites&oq=free+concerts+streaming&gs\\_l=psy-ab.1.1.0i324j0i22i30l6.379589.403195..405088...43.6..0.180.7314.24j42.....0....1..gws-wiz.....10..0i71j35i39j0i273j0i131j0i67j35i362i39j0i20i263j0i10j0i13j33i22i29i30j33i160j0i22i10i30j0i131i273j0i3.Tl4fWg4kDI0](https://www.google.com/search?rlz=1C1GCEA_enUS880US880&sxsrf=ALeKk020QmVCvfHi3vKd2VkCY0O30B2yqw%3A1584746581640&ei=VVB1XrTJJo-yggfv1IOgAw&q=free+concert+streaming+sites&oq=free+concerts+streaming&gs_l=psy-ab.1.1.0i324j0i22i30l6.379589.403195..405088...43.6..0.180.7314.24j42.....0....1..gws-wiz.....10..0i71j35i39j0i273j0i131j0i67j35i362i39j0i20i263j0i10j0i13j33i22i29i30j33i160j0i22i10i30j0i131i273j0i3.Tl4fWg4kDI0)



1)

2)

3)

4)

5)

6)

- 7) To understand the chemical basis of inheritance, we must understand the molecular structure of DNA. This is an example of the application of which concept to the study of biology? 7) \_\_\_\_\_  
 A) reductionism B) feedback regulation  
 C) evolution D) emergent properties
- 8) Use the following information when answering the following question. 8) \_\_\_\_\_  
 In 1668, Francesco Redi performed a series of experiments on spontaneous generation. He began by putting similar pieces of meat into eight identical jars. Four jars were left open to the air, and four were sealed. He then did the same experiment with one variation: Instead of sealing four of the jars completely, he covered them with gauze (the gauze excluded the flies while allowing the meat to be exposed to air). In both experiments, he monitored the jars and recorded whether or not maggots (young flies) appeared in the meat.  
 What hypothesis was being tested in the initial experiment with open versus sealed jars?  
 A) Spontaneous generation is more likely during the long days of summer.  
 B) Maggots do not arise spontaneously, but from eggs laid by adult flies.  
 C) Spontaneous generation can occur only if meat is exposed to air.  
 D) The type of meat used affects the likelihood of spontaneous generation.
- 9) How does a scientific theory differ from a scientific hypothesis? 9) \_\_\_\_\_  
 A) Confirmed theories become scientific laws; hypotheses become theories.  
 B) Hypotheses are usually an explanation for a more general phenomenon; theories typically address more specific issues.  
 C) Theories are usually an explanation for a more general phenomenon; hypotheses typically address more specific issues.  
 D) Theories are proposed to test scientific hypotheses.
- 10) Which of the following best describes a controlled experiment? 10) \_\_\_\_\_  
 A) An experiment includes at least two groups, one of which does not receive the experimental treatment  
 B) An experiment that includes at least two groups, one differing from the other by two or more variables  
 C) An experiment that includes one group for which the scientist controls all variables  
 D) An experiment repeated many times to ensure that the results are accurate
- 11) The atomic number of nitrogen is 7. Which of the following explains the greater mass number of nitrogen-15 compared to nitrogen-14? Nitrogen-15 contains \_\_\_\_\_. 11) \_\_\_\_\_  
 A) 7 neutrons and nitrogen-14 contains 8 neutrons  
 B) 15 protons and nitrogen-14 contains 14 protons  
 C) 8 neutrons and nitrogen-14 contains 7 neutrons  
 D) 8 protons and nitrogen-14 contains 7 protons

Refer to the following figure to answer the questions below.

Atomic mass →	12	16	1	14	32	31
	C	O	H	N	S	P
Atomic number →	6	8	1	7	16	15

- 12) How many electrons will a single atom of nitrogen with no charge and no bonds have in its valence shell? 12) \_\_\_\_\_  
 A) 7 B) 14 C) 2 D) 5

- 13) Which of the following types of representation would work best to indicate the type and number of atoms in a molecule? 13) \_\_\_\_\_  
 A) space-filling model B) ball-and-stick model  
 C) molecular formula D) structural formula

- 14) 14) \_\_\_\_\_

18
Ar
39.948

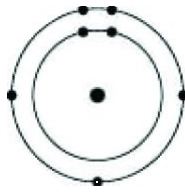
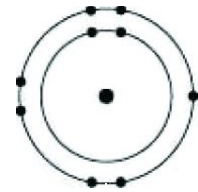
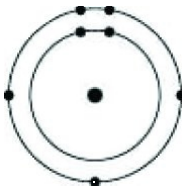
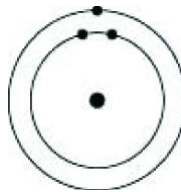
How many electrons are present in the neutral atom represented in the Periodic Table block in the figure?

- A) 40 B) 22 C) 18 D) 19
- 15) Which of the following is true of oxygen that has 8 protons, 8 neutrons, and 8 electrons? 15) \_\_\_\_\_  
 A) It has an atomic number of 8. B) It has a charge of +8.  
 C) It has atomic number of 16. D) It has a mass number of 8.
- 16) Elements found in the first two columns of the periodic table contain outer electron shells that are \_\_\_\_\_; these elements tend to form \_\_\_\_\_ in solution. 16) \_\_\_\_\_  
 A) almost empty; anions B) almost full; cations  
 C) almost empty; cations D) almost full; anions
- 17) The atomic number of chlorine is 17. The atomic number of magnesium is 12. Given this information, what is the formula for magnesium chloride? 17) \_\_\_\_\_  
 A)  $MgCl_3$  B)  $MgCl_2$  C)  $Mg_2Cl$  D)  $MgCl$

- 18) How many electron pairs are shared between carbon atoms in a molecule that has the formula  $C_2H_4$ ? 18) \_\_\_\_\_  
 A) one B) two C) three D) four
- 19) How many electrons participate in a triple covalent bond? 19) \_\_\_\_\_  
 A) 3 B) 12 C) 6 D) 9

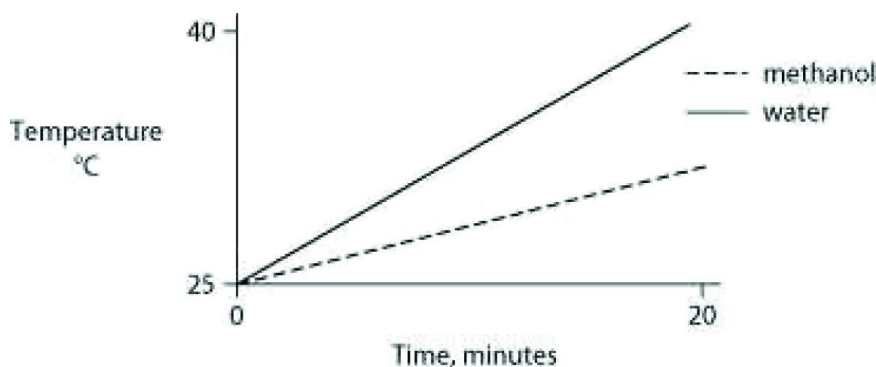
Use the following figure to answer the following questions.



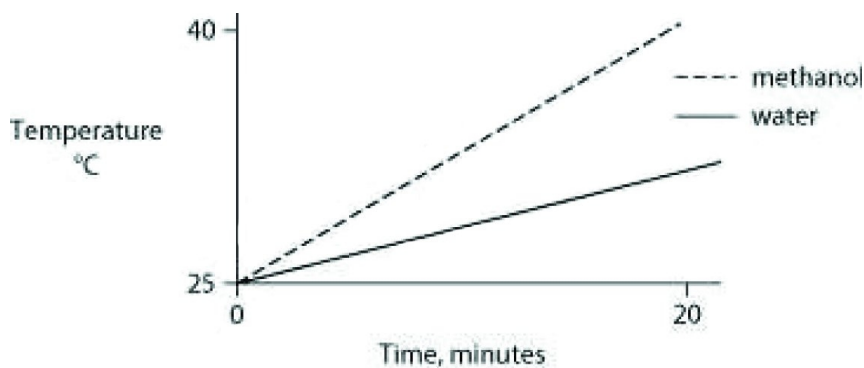
- 20) Which of the following models represents an atom that is most likely to form an anion with a charge of -1? 20) \_\_\_\_\_  
 A)  B)  C)  D) 
- 21) One mole (mol) of glucose (molecular mass = 180 daltons) is \_\_\_\_\_. 21) \_\_\_\_\_  
 A) 1 kilogram of glucose dissolved in 1 liter of solution  
 B) 180 grams of glucose  
 C)  $180 \times 10^{23}$  molecules of glucose  
 D) 180 mL of dissolved glucose
- 22) Which of the following is considered to be a strong base (alkali)? 22) \_\_\_\_\_  
 A)  $H_2CO_3 \rightleftharpoons HCO_3^- + H^+$  B)  $NH_3 + H^+ \rightleftharpoons NH_4^+$   
 C)  $HCl \rightarrow H^+ + Cl^-$  D)  $NaOH \rightarrow Na^+ + OH^-$
- 23) A solution of pH 7 is \_\_\_\_\_ than a solution of pH 8. 23) \_\_\_\_\_  
 A) 100% more acidic B) twice as acidic  
 C) ten times as acidic D) 100% less acidic
- 24) What is the concentration of hydroxide ions in a solution of pH 5? 24) \_\_\_\_\_  
 A)  $10^{-12}$  M B)  $10^{-9}$  M C)  $10^{-5}$  M D)  $10^{-10}$  M
- 25) Dilution of a buffer solution with a small amount of water will \_\_\_\_\_ the pH of the solution. 25) \_\_\_\_\_  
 A) raise B) immediately raise then lower  
 C) lower D) not bring major change in
- 26) To act as an effective coolant in a car's radiator, a substance has to have the capacity to absorb a great deal of heat. Which physical property is the best indicator for a good coolant? 26) \_\_\_\_\_  
 A) specific heat B) heat of vaporization  
 C) density at room temperature D) pH

- 27) Increased atmospheric  $\text{CO}_2$  concentrations might have what effect on seawater? 27) \_\_\_\_\_
- A) Seawater will become more acidic, and carbonate concentrations will decrease.
  - B) There will be no change in the pH of seawater, because carbonate will turn to bicarbonate.
  - C) Seawater will become more acidic, and carbonate concentrations will increase.
  - D) Seawater will become more alkaline, and carbonate concentrations will decrease.
- 28) What is the reason why Hydrochloric acid is such a strong acid? 28) \_\_\_\_\_
- A) HCl does not dissociate at all when it is dissolved in water
  - B) HCl dissociates completely to  $\text{H}^+(\text{aq})$  and  $\text{Cl}^-(\text{aq})$  in water
  - C) HCl produces a gaseous product when it is neutralized
  - D) aqueous solutions of HCl contain equal concentrations of  $\text{H}^+(\text{aq})$  and  $\text{OH}^-(\text{aq})$
- 29) Identical heat lamps are arranged to shine on two identical containers, one containing water and one methanol (wood alcohol), so that each liquid absorbs the same amount of energy minute by minute. The covalent bonds of methanol molecules are nonpolar, so there are no hydrogen bonds among methanol molecules. Which of the following graphs correctly describes what will happen to the temperature of the water and the methanol? 29) \_\_\_\_\_

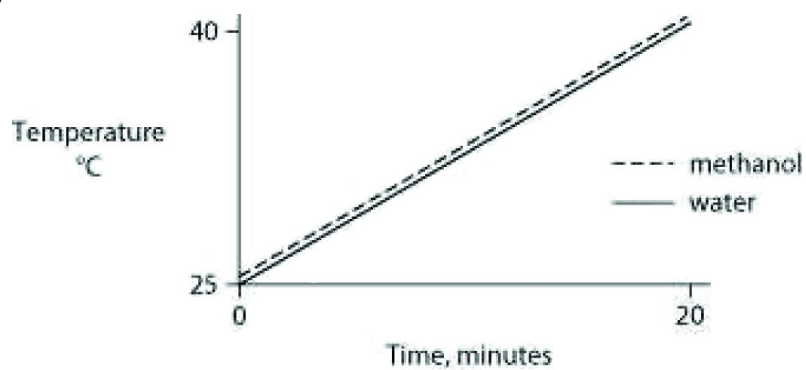
A)



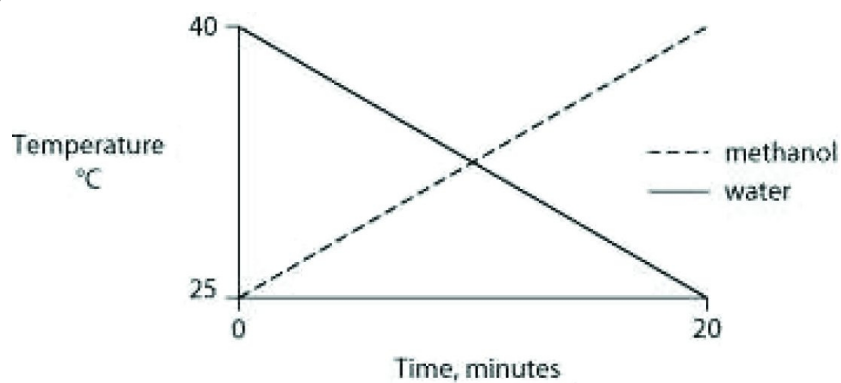
B)



C)



D)



30) Which of the following reasons explains why a steam burn is more severe than a hot water burn?

30) \_\_\_\_\_

- A) Water evaporates and leaves the surface faster and helps in cooling.
- B) Steam contains more energy than water.
- C) Burns caused by liquids are always milder.
- D) Steam can penetrate the skin.

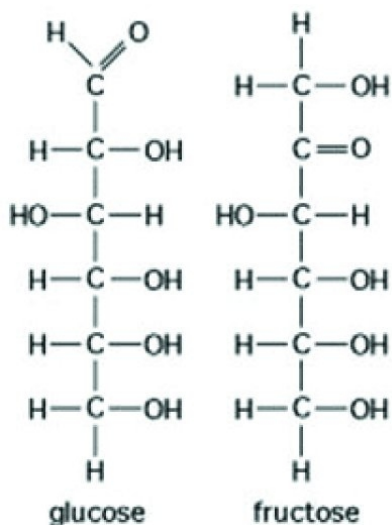
31) The maximum number of hydrogen atoms in an alkane with six carbons is \_\_\_\_\_.

31) \_\_\_\_\_

- A) 14
- B) 12
- C) 10
- D) 6

32) Use the following figure to answer the following question.

32) \_\_\_\_\_



The figure shows the structures of glucose and fructose. Which of the following describes a difference between the two molecules?

- A) number of oxygen atoms joined to carbon atoms by double covalent bonds
- B) arrangement of carbon, hydrogen, and oxygen atoms
- C) number of carbon, hydrogen, and oxygen atoms
- D) types of carbon, hydrogen, and oxygen atoms

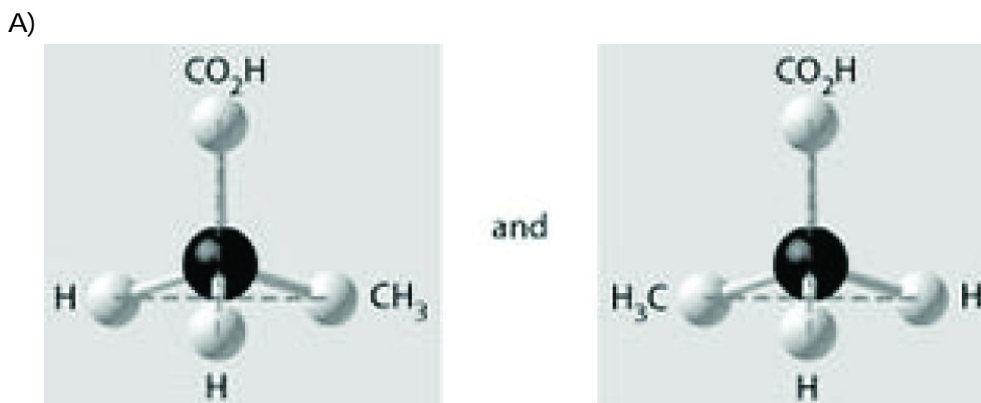
33) A compound contains hydroxyl groups as its predominant functional group. Which of the following properties of the molecule can be predicted with the information provided?

33) \_\_\_\_\_

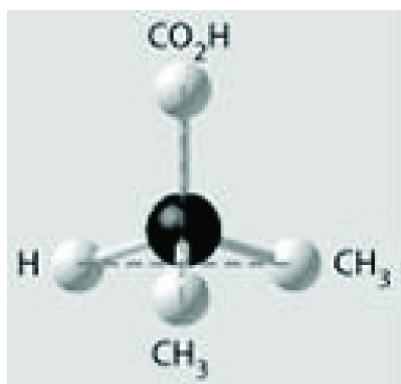
- A) It will not form hydrogen bonds with water.
- B) It should dissolve in water.
- C) It should dissolve in a nonpolar solvent.
- D) It lacks an asymmetric carbon and is probably a fat or lipid.

34) Which of the pairs of molecular structures shown depict enantiomers (enantiomeric forms) of the same molecule?

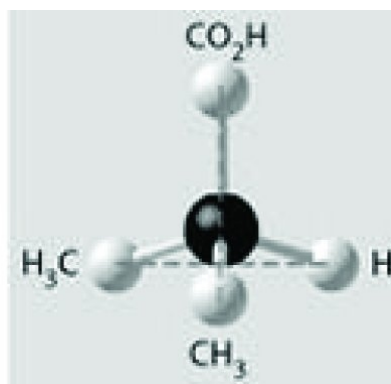
34) \_\_\_\_\_



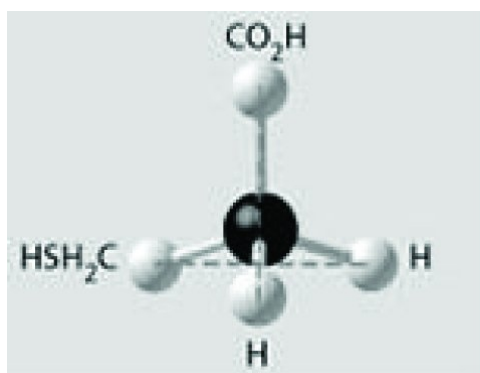
B)



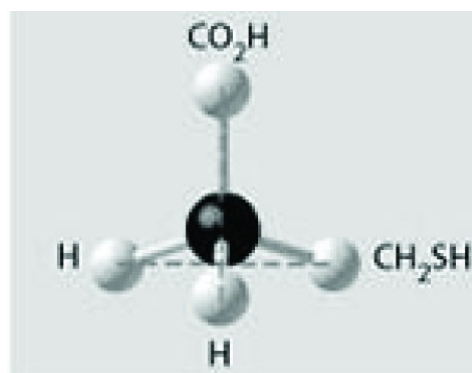
and



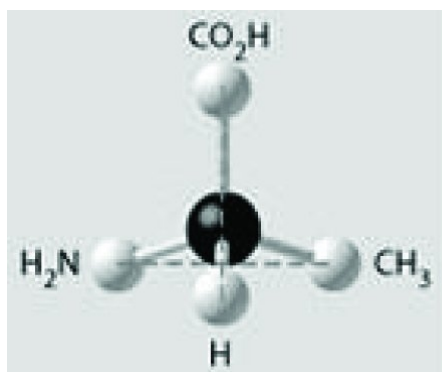
C)



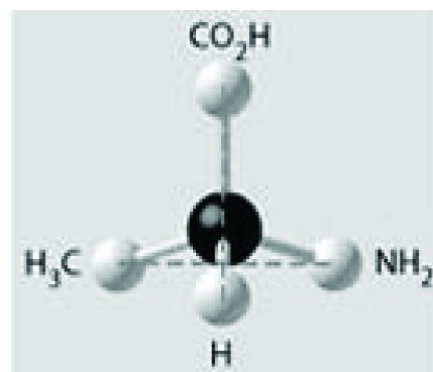
and



D)



and



35) A carbon atom is most likely to form what kind of bond(s) with other atoms?

- A) ionic
- B) covalent
- C) carbon is an inert element
- D) hydrogen

35) \_\_\_\_\_

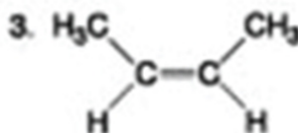
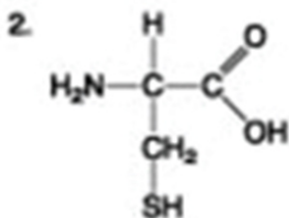
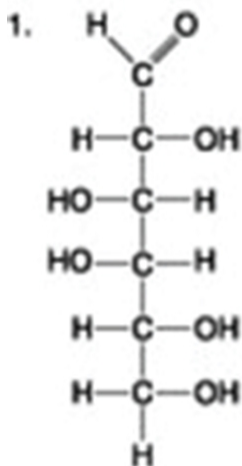
36) ATP is necessary for life because \_\_\_\_\_.

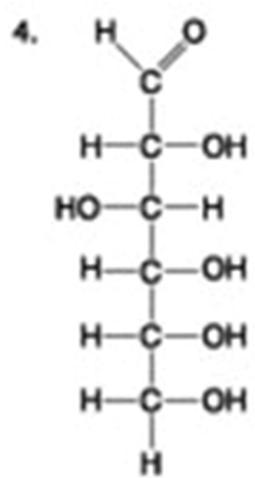
- A) it speeds up the biological processes
- B) it tastes good
- C) it is soluble in water
- D) it is the principle energy carrying molecule in a cell

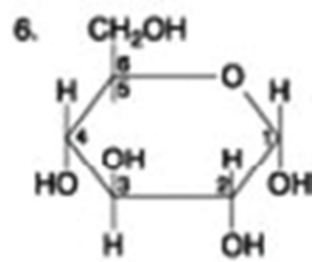
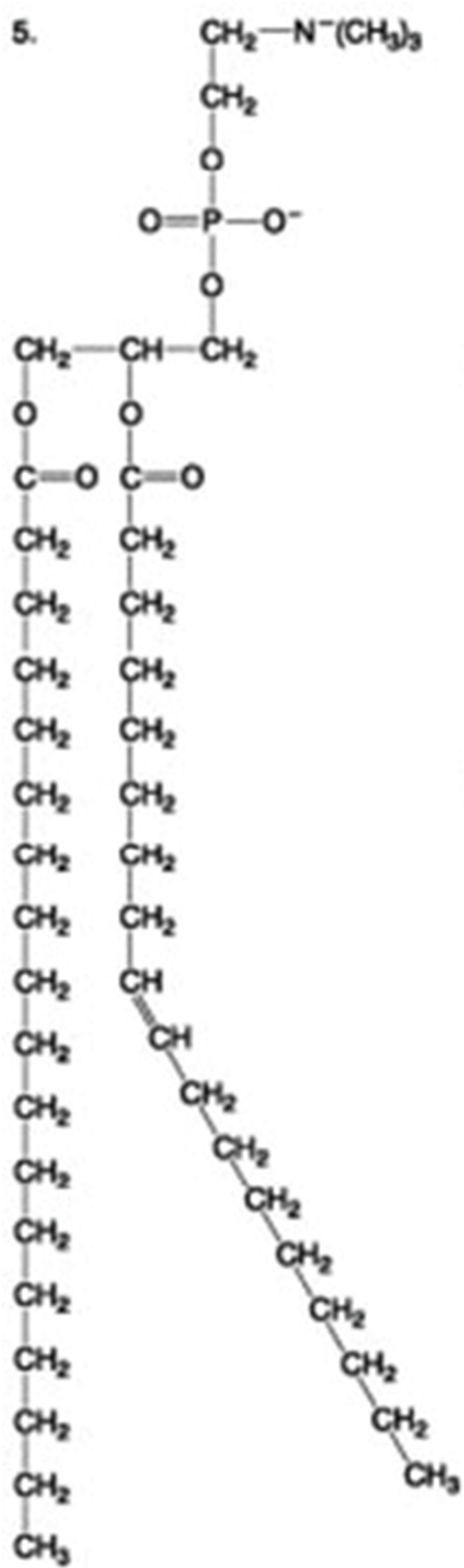
36) \_\_\_\_\_

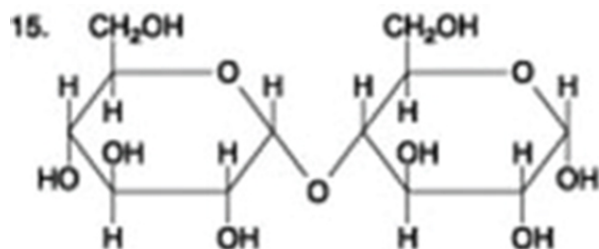
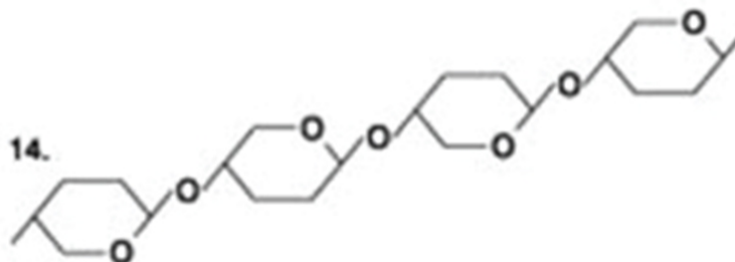
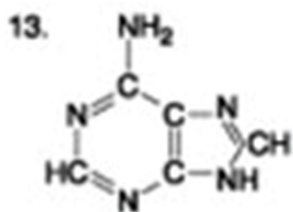
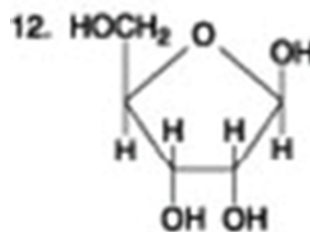
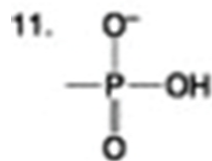
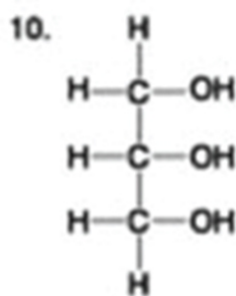
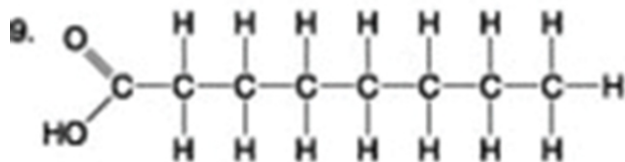
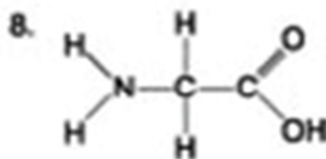
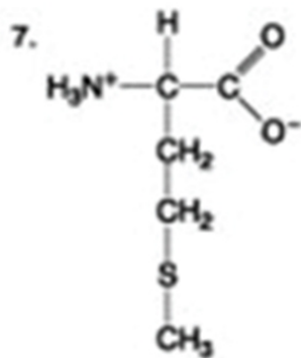


- 37) Which chemical change will convert ADP to ATP? 37) \_\_\_\_\_  
 A) by adding a phosphate, energy and oxygen  
 B) by removing energy and a phosphate  
 C) by adding energy and a phosphate  
 D) by adding two phosphates
- 38) Hydrolysis of ADP produces which of the following products? 38) \_\_\_\_\_  
 A)  $\text{Pi} + \text{Pi} + \text{water}$  B)  $\text{ATP} + \text{energy}$   
 C)  $\text{ATP} + \text{Pi}$  D)  $\text{AMP} + \text{Pi} + \text{energy}$
- 39) Which of the following molecules has the fewest characteristics of an organic molecule? 39) \_\_\_\_\_  
 A) methane  
 B) keratin—fibrous protein forming the main structure of hair  
 C) water  
 D) hemoglobin—iron-containing oxygen transport metalloprotein
- 40) Which of the following statements about ADP/ATP is true? 40) \_\_\_\_\_  
 A) ADP can have two *positive* charges.  
 B) ADP contains more energy than ATP.  
 C) ATP can have four negative charges.  
 D) Following hydrolysis, ATP can release one phosphate, whereas ADP cannot.
- 41) Which polysaccharide is an important component in the structure of many animal and fungal cells? 41) \_\_\_\_\_  
 A) amylose B) chitin C) amylopectin D) cellulose
- 42) The following question is based on the 15 molecules illustrated in the figures. 42) \_\_\_\_\_









Which of the following molecules is a disaccharide?

A) 1 and 4

B) 15

C) 6

D) 3

43) How many molecules of water are required for the polymerization of a 22 monomer-long cellulose molecule?

43) \_\_\_\_\_

A) 21

B) 11

C) 44

D) 22

- 44) Which of the following statements about proteins is true? 44) \_\_\_\_\_
- A) Denaturation leads to bond disruption, and the molecule turns into liquid.
  - B) Final folded structure can reveal the steps of protein folding.
  - C) Some proteins form a complete 3-D structure only when they interact with their targets.
  - D) Denaturation is always irreversible.

- 45) Which of the following terms does not describe a molecule of glucose? 45) \_\_\_\_\_
- A) a disaccharide
  - B) an aldose
  - C) an isomer of fructose
  - D) a hexose

Use the following information to answer the following questions.

"The native structure of hemoglobin (HB) comprises of two  $\alpha$  and two  $\beta$  subunits, each of which carries a heme group. There appear to be no previous studies that report the in-vitro folding and assembly of Hb from highly unfolded  $\alpha$  and  $\beta$  globin in a 'one-pot' reaction. One difficulty that has to be overcome for studies of this kind is the tendency of Hb to aggregate during refolding. This work demonstrates that denaturation of Hb in 40% acetonitrile at pH 10.0 is reversible." (J Am Soc Mass Spectrom 2007, 18, 8-16)

- 46) Based on the information in the passage, the total number of heme groups present in four hemoglobin protein molecules is \_\_\_\_\_. 46) \_\_\_\_\_
- A) 4
  - B) 16
  - C) 12
  - D) 8

- 47) The "flow of genetic information" in molecular biology follows the following path, \_\_\_\_\_. 47) \_\_\_\_\_
- A) DNA is translated into protein
  - B) DNA is translated into RNA, which is transcribed into protein
  - C) RNA is transcribed into protein
  - D) DNA is transcribed into RNA, which is translated into protein

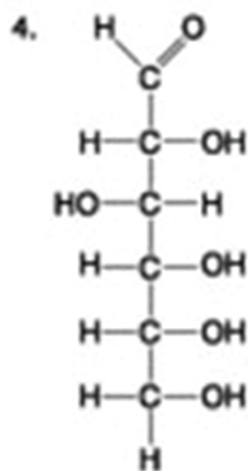
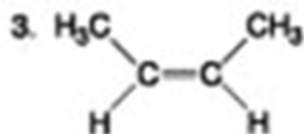
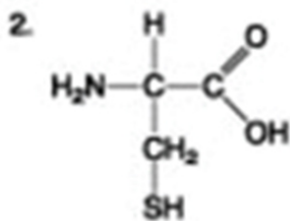
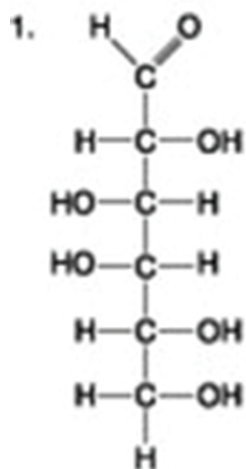
- 48) Which parts of the amino acids AA<sub>1</sub> and AA<sub>2</sub> are involved in the formation of a peptide bond? 48) \_\_\_\_\_

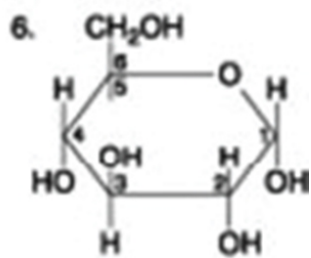
AA<sub>1</sub>-AA<sub>2</sub>

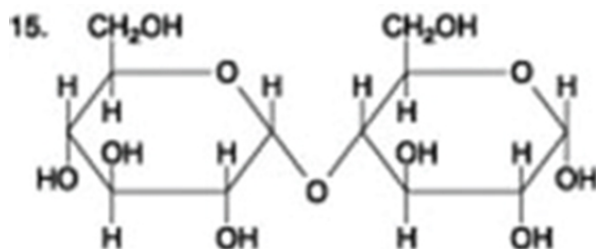
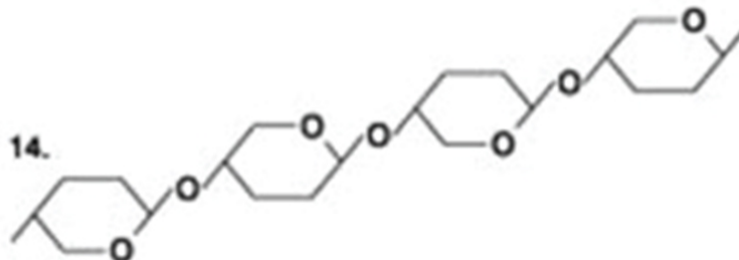
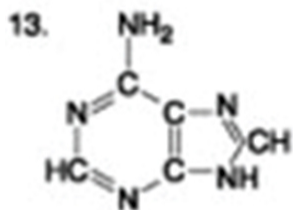
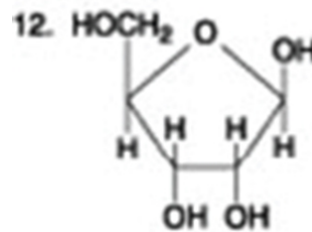
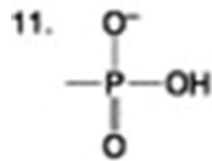
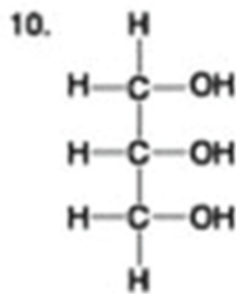
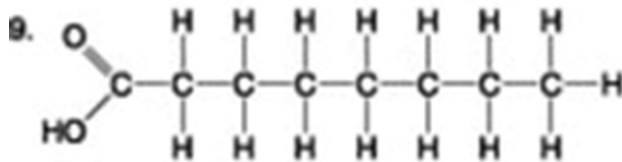
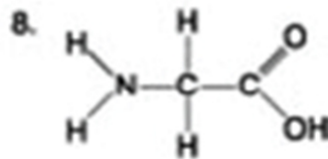
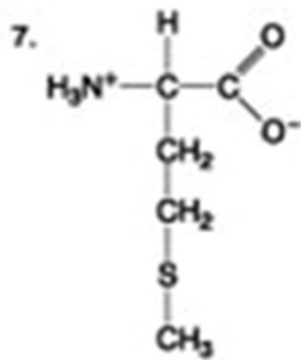
- A) carboxyl group of AA<sub>1</sub> and amino group of AA<sub>2</sub>
- B) amino group of AA<sub>1</sub> and carboxyl group of AA<sub>2</sub>
- C) carboxyl group of AA<sub>1</sub> and side chain of AA<sub>2</sub>
- D) side chains of both AA<sub>1</sub> and AA<sub>2</sub>

49) The following question is based on the 15 molecules illustrated in the figures.

49) \_\_\_\_\_







Which of the following molecule when added to nucleoside turns it into a nucleotide?

A) 6

B) 2

C) 11

D) 11 and 13

50) Chitin is composed of glucose and \_\_\_\_\_.

A) N-acetyl glucosamine

B) amino acid

C) fructose

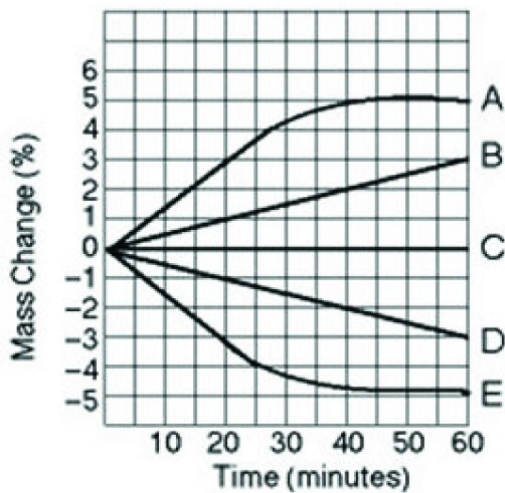
D) lactose

50) \_\_\_\_\_



- 51) While abundant quantities of proteins are produced by free ribosomes in the cytosol, new proteins are also produced by which of the following organelles? 51) \_\_\_\_\_  
 A) lysosomes B) the nucleolus  
 C) the Golgi apparatus D) mitochondria
- 52) A newly discovered unicellular organism isolated from acidic mine drainage is found to contain a cell wall, a plasma membrane, two flagella, and peroxisomes. Based on this information only, the organism is most likely to be \_\_\_\_\_. 52) \_\_\_\_\_  
 A) a motile bacterium  
 B) a motile eukaryote  
 C) a motile archaea  
 D) a nonmotile eukaryote  
 E) a nonmotile prokaryote
- 53) Which of the following structures is common to plant *and* animal cells? 53) \_\_\_\_\_  
 A) central vacuole B) centriole C) mitochondrion D) chloroplast
- 54) Which of the following structures are found in plant, animal, and bacterial cells? 54) \_\_\_\_\_  
 A) lysosomes B) chloroplasts C) ribosomes D) mitochondria
- 55) Ions can travel directly from the cytoplasm of one animal cell to the cytoplasm of an adjacent cell through which of the following structures? 55) \_\_\_\_\_  
 A) gap junctions B) plasmodesmata C) desmosomes D) tight junctions
- 56) Gaucher disease is the most common genetic disorder affecting lipid storage in humans. The disease is caused by deficiency of an enzyme necessary for the breakdown of lipids, which leads to the accumulation of fatty material in organs of the body including the spleen, liver, kidneys, lungs, brain, and bone marrow. 56) \_\_\_\_\_  
 Which of the following statements provides the most plausible explanation for how organelles are impacted by Gaucher disease.  
 A) The mitochondria are most likely defective and do not produce adequate amounts of ATP needed for lipid metabolism.  
 B) The Golgi apparatus most likely produces vesicles with defective membranes, which fail to be transported to the plasma membrane for secretion.  
 C) The lysosomes most likely lack sufficient amounts of the enzymes necessary for lipid breakdown.  
 D) The rough endoplasmic reticulum most likely contains excess ribosomes, which results in overproduction of the enzyme involved in lipid breakdown.
- 57) An early step in the evolution of eukaryotic cells most likely involved which of the following events? 57) \_\_\_\_\_  
 A) endosymbiosis of an oxygen-using bacterium in a larger bacterial host cell—the endosymbiont evolved into mitochondria  
 B) endosymbiosis of a photosynthetic archaeal cell in a larger bacterial host cell to escape toxic oxygen—the anaerobic archaea evolved into chloroplasts  
 C) evolution of an endomembrane system and subsequent evolution of mitochondria from a portion of the smooth endoplasmic reticulum  
 D) endosymbiosis of an oxygen-using bacterium in a larger bacterial host cell—the endosymbiont evolved into chloroplasts

- 58) Which of the following is the most appropriate technique for observing and measuring the size of ribosomes in a eukaryotic cell? 58) \_\_\_\_\_  
 A) scanning electron microscopy B) transmission electron microscopy  
 C) a using a magnifying glass D) standard light microscopy
- 59) A young child who suffers from a metabolic disease is always tired and fatigued. Which of the following organelles is most likely malfunctioning in this disease? 59) \_\_\_\_\_  
 A) mitochondria B) smooth endoplasmic reticulum  
 C) lysosomes D) Golgi apparatus
- 60) The nuclear lamina is an array of intermediate filaments that line the inner surface of the nuclear membrane. Disassembly of the lamina by chemical treatment would most likely result in which of the following consequences? 60) \_\_\_\_\_  
 A) the inability of the nucleus to divide during cell division  
 B) a loss of genetic information from chromosomes  
 C) closing of nuclear pores  
 D) a change in the shape of the nucleus
- 61) Which of the following statements best describes a characteristic feature of a carrier protein in a plasma membrane? 61) \_\_\_\_\_  
 A) It requires the expenditure of cellular energy to function.  
 B) It has no hydrophobic regions.  
 C) It works against a concentration gradient.  
 D) It exhibits specificity for a particular type of molecule.
- 62) Five dialysis bags, constructed of a type of membrane that is permeable to water and impermeable to sucrose, were filled with various concentrations of sucrose and then placed in separate beakers containing an initial concentration of 0.6 M sucrose solution. At 10-minute intervals, the bags were weighed, and the percent change in mass of each bag was graphed. 62) \_\_\_\_\_



Which line or lines in the graph represent(s) bags that contain a solution that is hypertonic to the solution in the beaker at 50 minutes?

- A) D and E B) B C) D D) A and B

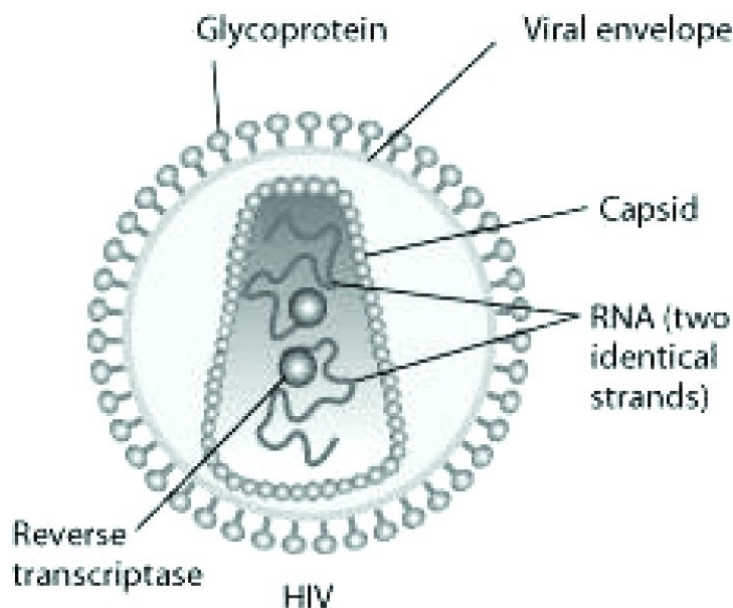
63) Which of the following cellular processes includes all of the others?

63) \_\_\_\_\_

- A) transport of an ion down its electrochemical gradient
- B) facilitated diffusion
- C) osmosis
- D) passive transport

64) Human immunodeficiency virus (HIV) infects cells that have both CD4 and CCR5 cell surface molecules. The viral nucleic acid molecules are enclosed in a protein capsid, and the protein capsid is itself contained inside an envelope consisting of a lipid bilayer membrane and viral glycoproteins. One hypothesis for viral entry into cells is that binding of HIV membrane glycoproteins to CD4 and CCR5 initiates fusion of the HIV membrane with the plasma membrane, releasing the viral capsid into the cytoplasm. An alternative hypothesis is that HIV gains entry into the cell via receptor-mediated endocytosis, and membrane fusion occurs in the endocytotic vesicle. To test these alternative hypotheses for HIV entry, researchers labeled the lipids on the HIV membrane with a red fluorescent dye.

64) \_\_\_\_\_



What would be observed by live-cell fluorescence microscopy immediately after HIV entry if HIV enters the cell by endocytosis first, and then later fuses with the endocytotic vesicle membrane?

- A) A spot of red fluorescence will be visible on the infected cell's plasma membrane, marking the site of membrane fusion and HIV entry.
- B) The red fluorescent dye-labeled lipids will appear in the infected cell's interior.
- C) A spot of red fluorescence will remain outside the cell after delivering the viral capsid.
- D) A spot of red fluorescence will diffuse in the infected cell's cytoplasm.

65) Which of the following statements best describes a characteristic feature of *osmosis*?

65) \_\_\_\_\_

- A) The process of osmosis requires energy from ATP hydrolysis.
- B) Osmosis only takes place in red blood cells.
- C) In osmosis, solutes move across a membrane from areas of lower water concentration to areas of higher water concentration.
- D) In osmosis, water moves across a membrane from areas of lower solute concentration to areas of higher solute concentration.

- 66) Celery stalks that are immersed in fresh water for several hours become stiff. Which of the following statements best explains the observation that similar stalks left in a 0.15 M salt solution become limp? 66) \_\_\_\_\_
- A) The fresh water is hypotonic and the salt solution is hypertonic to the cells of the celery stalks
  - B) The fresh water is hypertonic and the salt solution is hypotonic to the cells of the celery stalks
  - C) The fresh water is isotonic and the salt solution is hypertonic to the cells of the celery stalks
  - D) The fresh water and the salt solution are both hypertonic to the cells of the celery stalks.
- 67) The voltage across a membrane is called the \_\_\_\_\_. 67) \_\_\_\_\_
- A) membrane potential
  - B) osmotic potential
  - C) chemical gradient
  - D) electrochemical gradient
- 68) Which of the following factors is a primary contributor underlying cause of familial hypercholesterolemia? 68) \_\_\_\_\_
- A) defective LDL receptors on the cell membranes
  - B) inhibition of the cholesterol active transport system in red blood cells
  - C) poor attachment of the cholesterol to the extracellular matrix of cells
  - D) a poorly formed lipid bilayer that cannot incorporate cholesterol into cell membranes
- 69) When the interior of a cell is in equilibrium with its environment, which of the following statements best describes the relative movement of molecules that can diffuse through the plasma membrane? 69) \_\_\_\_\_
- A) There is no movement of molecules into or out of the cell.
  - B) There is directed movement of molecules into or out of the cell.
  - C) All movement of molecules across the plasma membrane occurs by active transport.
  - D) There is random movement of molecules into and out of the cell.
- 70) An animal cell that lacks carbohydrates on the external surface of its plasma membrane would likely be impaired in which of the following functions? 70) \_\_\_\_\_
- A) establishing a diffusion barrier to charged molecules
  - B) transporting ions against an electrochemical gradient
  - C) attaching the plasma membrane to the cytoskeleton
  - D) cell-cell recognition
- 71) The 3-D structure of an enzyme composed of a single polypeptide chain includes a large substrate-binding domain. It also has a separate binding site for a regulatory molecule. Based on these structural observations the enzyme is most likely regulated by which of the following mechanism? 71) \_\_\_\_\_
- A) cooperativity
  - B) competitive inhibition
  - C) noncompetitive inhibition
  - D) competitive activation
- 72) In the citric acid cycle, succinate dehydrogenase catalyzes the conversion of succinate to fumarate. This reaction is inhibited by malonate, which resembles succinate but cannot be acted upon by succinate dehydrogenase. Which of the following statements best describes the role played by molecules described in the reaction? 72) \_\_\_\_\_
- A) Fumarate is the product, and malonate is a noncompetitive inhibitor in the reaction.
  - B) Succinate dehydrogenase is the enzyme, and fumarate is the substrate in the reaction.
  - C) Succinate is the substrate, and fumarate is the product in the reaction.
  - D) Succinate dehydrogenase is the enzyme, and malonate is the substrate in the reaction.

73) In addition to activating or inhibiting enzymes through allosteric regulation, which of these mechanisms do cells also use to control enzymatic activity? 73) \_\_\_\_\_

- A) localization of enzymes into specific organelles or membranes
- B) assembly of enzymes into large aggregates
- C) secretion of enzymes out of the cell
- D) altering internal pH

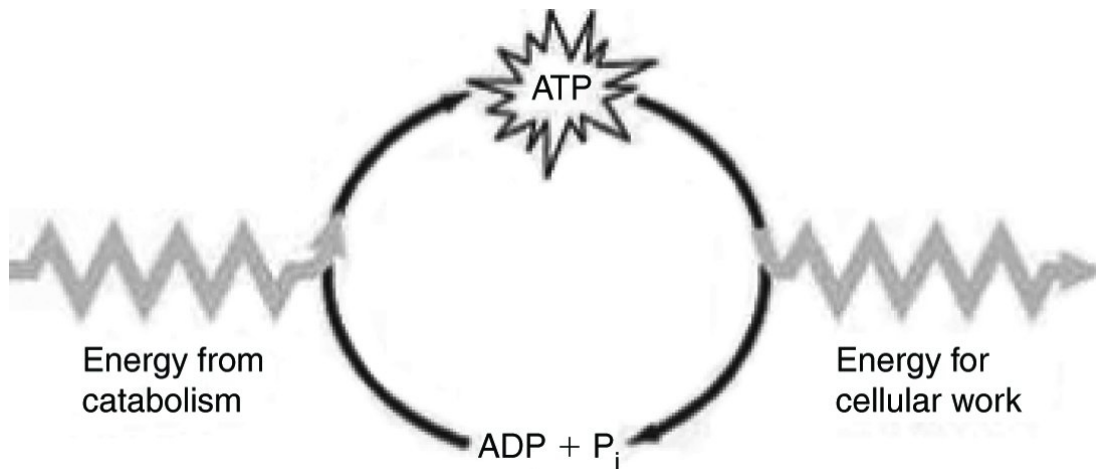
74) Which of the following statements best describes how addition of a catalyst will affect a chemical reaction? 74) \_\_\_\_\_

- A) The catalyzed reaction will have the same  $\Delta G$  as the uncatalyzed reaction.
- B) The catalyzed reaction will have a lower  $\Delta G$  than the uncatalyzed reaction.
- C) The catalyzed reaction will have a higher  $\Delta G$  than the uncatalyzed reaction.
- D) The catalyzed reaction will consume all of the catalyst.

75) Which of the following statements best describes a primary mechanism by which the energy released in ATP hydrolysis is used directly to drive endergonic chemical reactions in a cell? 75) \_\_\_\_\_

- A) The phosphate is combined with ADP to regenerate ATP.
- B) Free energy is released as heat, which speeds up the rate of endergonic reactions.
- C) Binding of ATP to an enzyme active site converts an endergonic reaction to an exergonic reaction.
- D) The released phosphate is used to form phosphorylated intermediates that are more reactive than the original unphosphorylated substrate.

76) 76) \_\_\_\_\_



Which of the following statements best summarizes the figure above?

- A)  $P_i$  acts as a shuttle molecule to move energy from ATP to ADP.
- B) ATP is a molecule that acts as an intermediary to store energy for cellular work.
- C) ADP +  $P_i$  are molecules that store energy for catabolism.
- D) Energy from catabolism can be used directly for performing cellular work.

77) Which of the following molecules is most similar in structure to ATP? 77) \_\_\_\_\_

- A) an RNA nucleotide
- B) a pentose sugar
- C) a DNA nucleotide
- D) an amino acid with three phosphate groups attached

- 78) Which of the following statements best describes why hydrolysis reactions occur more readily in solution than dehydration reactions do? 78) \_\_\_\_\_
- A) Hydrolysis reactions are exergonic and increase entropy of the system.
  - B) Hydrolysis reactions are exergonic and decrease entropy of the system.
  - C) Hydrolysis reactions increase G, or Gibbs free energy of the system.
  - D) Hydrolysis reactions are endergonic and increase entropy of the system.
- 79) When chemical, transport, or mechanical work is performed by an organism, what happens to the heat that is generated? 79) \_\_\_\_\_
- A) It is used to generate ADP from nucleotide precursors.
  - B) It is lost to the environment.
  - C) It is used to power yet more cellular work.
  - D) It is captured to store energy as more ATP.
- 80) A series of enzymes catalyze the reactions in the metabolic pathway  $X \rightarrow Y \rightarrow Z \rightarrow A$ . Product A binds to the enzyme that converts X to Y at a position remote from its active site. This binding decreases the activity of the enzyme. What does substance X represent in this pathway? 80) \_\_\_\_\_
- A) a substrate
  - B) an intermediate
  - C) the product
  - D) an allosteric inhibitor
- 81) If a cell produces on average 30 ATP molecules for each molecule of glucose that is completely oxidized to carbon dioxide and water, how many ATP molecules on average can the cell synthesize for each molecule of pyruvate oxidized to carbon dioxide and water? 81) \_\_\_\_\_
- A) 25
  - B) 8
  - C) 12.5
  - D) 14
- 82) In liver cells, the inner mitochondrial membranes contain about five times the surface area of the outer mitochondrial membranes, which allows for increased rates of which process below? 82) \_\_\_\_\_
- A) the citric acid cycle
  - B) oxidative phosphorylation
  - C) substrate-level phosphorylation
  - D) glycolysis
- 83) The standard free energy for the complete oxidation of glucose to  $\text{CO}_2$  and water is  $-686 \text{ kcal/mol}$ , and the standard free energy for the reduction of  $\text{NAD}^+$  to NADH is  $+53 \text{ kcal/mol}$ . Which of the following statements best explains why only two molecules of NADH are formed in glycolysis when up to 12 molecules could theoretically be produced? 83) \_\_\_\_\_
- A) Most of the free energy available from the oxidation of glucose is used in the production of ATP in glycolysis.
  - B) Glycolysis is a very inefficient process, with much of the energy of glucose released as heat.
  - C) There is no  $\text{CO}_2$  or water produced as products of glycolysis.
  - D) Most of the free energy available from the oxidation of glucose remains in pyruvate, one of the products of glycolysis.
- 84) Which of the following processes is driven by chemiosmosis? 84) \_\_\_\_\_
- A) ATP hydrolysis
  - B) reduction of  $\text{NAD}^+$  to NADH
  - C) oxidative phosphorylation
  - D) substrate-level phosphorylation

- 85) A person on a strict diet and exercise regimen lost 7 kg (about 15 pounds) of body fat in just two weeks. In which of the following forms did the lost fat most likely leave the body? 85) \_\_\_\_\_  
A) converted to ATP, which weighs much less than fat  
B) released as CO<sub>2</sub> and H<sub>2</sub>O  
C) eliminated from the body as feces  
D) converted to heat and then released
- 86) Glycolysis results in the net production of which of the following sets of molecules per glucose molecule? 86) \_\_\_\_\_  
A) 4 NADH, 2 pyruvate, and 4 ATP  
B) 6 CO<sub>2</sub>, 2 pyruvate, and 2 ATP  
C) 2 NAD<sup>+</sup>, 2 pyruvate, and 2 ATP  
D) 2 NADH, 2 pyruvate, and 2 ATP
- 87) The synthesis of ATP by oxidative phosphorylation is an example of which of the following processes? 87) \_\_\_\_\_  
A) a reaction with a positive  $\Delta G$   
B) allosteric regulation  
C) coupling of an endergonic reaction to an exergonic reaction  
D) active transport
- 88) Which of the following statements describes a primary function of both alcohol fermentation and lactic acid fermentation? 88) \_\_\_\_\_  
A) reduction of NAD<sup>+</sup> to NADH  
B) reduction of FAD to FADH<sub>2</sub>  
C) hydrolysis of ATP to ADP + P<sub>i</sub>  
D) oxidation of NADH to NAD<sup>+</sup>
- 89) Which of the following molecules is the lowest-energy donor of electrons to the electron transport chain? 89) \_\_\_\_\_  
A) FADH<sub>2</sub>  
B) ATP  
C) water  
D) NADH
- 90) Under which conditions will plant cell mitochondria actively oxidize pyruvate and carry out oxidative phosphorylation? 90) \_\_\_\_\_  
A) only in cells that store glucose in the form of starch and only in the dark  
B) only in photosynthetic cells in the light, while photosynthesis occurs concurrently  
C) in photosynthesizing cells in the light, and in other cells in the dark  
D) in all cells, with or without light
- 91) In which of the following organisms did the process of photosynthesis most likely originate? 91) \_\_\_\_\_  
A) prokaryotes  
B) unicellular aquatic eukaryotes  
C) fungi  
D) land plants

- 92) Which of the following statements best describes the relationship between autotrophs and heterotrophs? 92) \_\_\_\_\_
- A) Heterotrophs produce their organic molecules from CO<sub>2</sub> and other inorganic molecules, whereas autotrophs obtain their organic molecules from compounds produced by other organisms.
  - B) Heterotrophs are considered the producers of the biosphere, whereas autotrophs are consumers.
  - C) Both autotrophs and heterotrophs produce some of their organic molecules from CO<sub>2</sub> and other inorganic molecules.
  - D) Autotrophs produce their organic molecules from CO<sub>2</sub> and other inorganic molecules, whereas heterotrophs obtain their organic molecules from compounds produced by other organisms.
- 93) Which of the following sequences correctly represents the flow of electrons in photosynthesis? 93) \_\_\_\_\_
- A) NADPH → O<sub>2</sub> → CO<sub>2</sub>
  - B) NADPH → chlorophyll → Calvin cycle
  - C) H<sub>2</sub>O → NADPH → Calvin cycle
  - D) NADPH → electron transport chain → O<sub>2</sub>
- 94) Which of the following events are associated with chemiosmosis in chloroplasts? 94) \_\_\_\_\_
- A) The pH of the stroma increases and ATP is synthesized.
  - B) The pH of the stroma decreases and ATP is hydrolyzed.
  - C) The pH of the thylakoid space increases and ATP is synthesized.
  - D) The pH of the cytosol outside the chloroplast decreases and ATP is synthesized.
- 95) A greenhouse becomes excessively hot from too much sunlight. One solution is to shade the plants with colored translucent plastic sheets, the color of which allows passage of only that wavelength of light. Which of the following colors would reduce the overall light energy without reducing plant growth? 95) \_\_\_\_\_
- A) green
  - B) orange
  - C) blue
  - D) yellow
- 96) In autumn, chlorophyll is degraded in the leaves of deciduous trees. Which of the following statements best explains the change in color from green to shades of yellow, orange, or red? 96) \_\_\_\_\_
- A) In the absence of photosynthesis, the leaves produce energy exclusively by aerobic cellular respiration.
  - B) Degraded chlorophyll appears yellow, orange, or red.
  - C) Sugars from sap fill the leaves prior to winter.
  - D) Other pigments such as carotenoids remain in the leaves after the chlorophyll is degraded.
- 97) In which cellular structure are the enzymes of the Calvin cycle localized? 97) \_\_\_\_\_
- A) outer membrane of the chloroplast
  - B) thylakoid membrane
  - C) stroma of the chloroplast
  - D) interior of the thylakoid (thylakoid space)
- 98) Which of the following statements best describes a characteristic of C<sub>4</sub> plants? 98) \_\_\_\_\_
- A) They are able to fix CO<sub>2</sub> at lower CO<sub>2</sub> concentrations and higher oxygen concentrations than C<sub>3</sub> plants.
  - B) They produce oxaloacetate, a four-carbon compound, which is then delivered to the citric acid cycle in mitochondria.
  - C) They use rubisco for carbon fixation, whereas C<sub>3</sub> plants do not.
  - D) They have higher rates of photorespiration than C<sub>3</sub> plants.

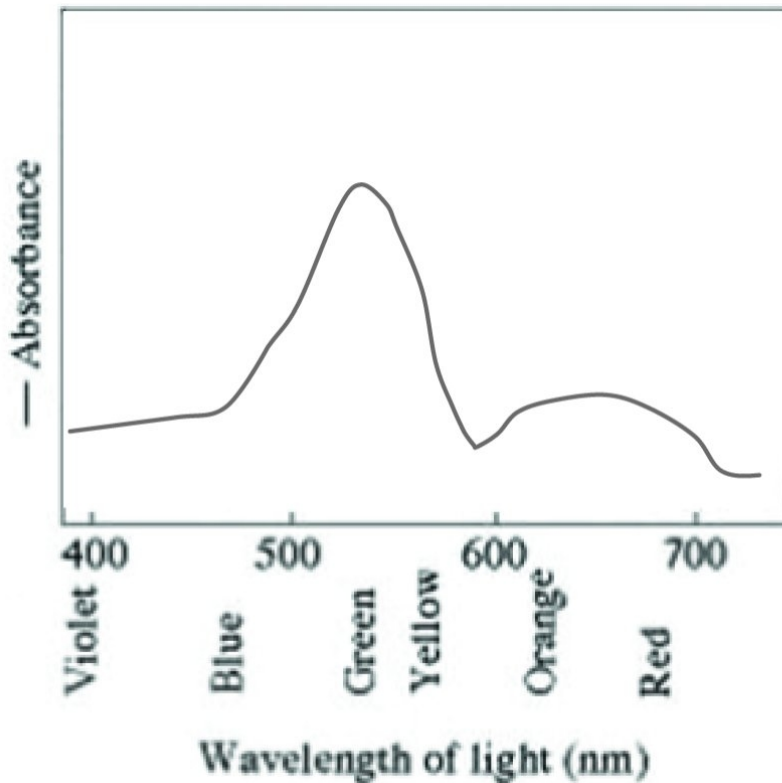


99) A mutation that eliminates a plant's ability to perform photorespiration will most likely have which of the following effects on the plant? 99) \_\_\_\_\_

- A) Cells would carry on the Calvin cycle at a much slower rate.
- B) Less oxygen would be produced by photosynthesis.
- C) Photosynthetic efficiency would be reduced at low light intensities.
- D) There would be more cellular damage from harmful products of the light reactions of photosynthesis.

100)

100) \_\_\_\_\_



The accompanying figure shows the absorbance spectrum for a photosynthetic bacterium that appears purple. Which of the following wavelengths of light are maximally absorbed by this organism?

- A) yellow and orange
- B) violet and blue
- C) green and yellow
- D) red and orange

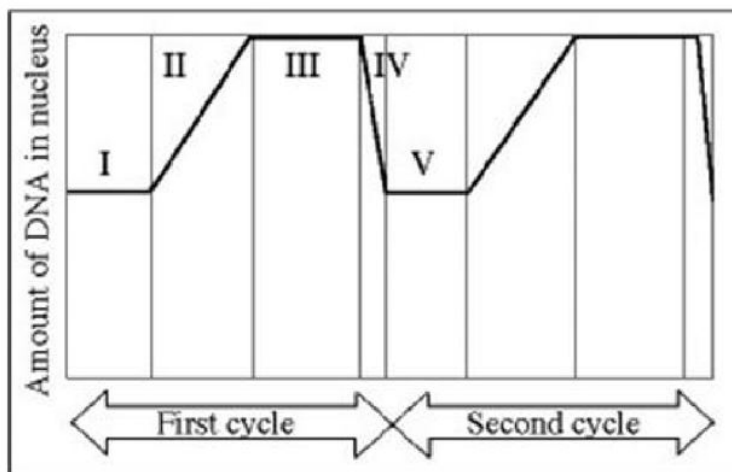
101) Which of the following conditions is required for a target organ to respond to a particular hormone? 101) \_\_\_\_\_

- A) Cells in the target organ must modify their plasma membranes to allow the hormone to enter the cytoplasm.
- B) The target organ must have the opposite mating type of the organ that produced the hormone.
- C) The target organ must have receptors that recognize and bind the hormone molecule.
- D) The target organ must be the same as the organ that produced the hormone.

- 102) Which of the sequences below best describes the sequential steps (numbered 1-5) in a signal transduction pathway that utilizes a G protein-coupled receptor? 102) \_\_\_\_\_
1. The signal-receptor complex activates a G protein.
  2. Protein kinases are activated.
  3. A signal molecule binds to a receptor.
  4. Target proteins are phosphorylated.
  5. cAMP is produced.
- A) 3, 1, 5, 2, 4                      B) 1, 2, 5, 3, 4                      C) 3, 1, 2, 4, 5                      D) 1, 2, 3, 4, 5
- 103) Some cases of human melanoma have been shown to result from inhibition of apoptosis in these cells. The human analogue of which of the following defects in *C. elegans* could cause these cancers? 103) \_\_\_\_\_
- A) A *ced-3* protein that is always inactive.
  - B) A *ced-4* protein that is always active.
  - C) A death-signaling molecule receptor that is always active.
  - D) A *ced-9* protein that is always inactive.
- 104) Which of the following statements best describes the effect of a mutation that alters the structure of the  $\alpha$  factor so that it no longer binds to the corresponding receptor on  $\alpha$  cells? 104) \_\_\_\_\_
- A) The  $\alpha$  cells will fail to secrete the  $\alpha$  factor.
  - B) The  $\alpha$  cells will fail to initiate the shape changes necessary for mating after binding  $\alpha$  factor.
  - C) The  $\alpha$  cells will mate with other  $\alpha$  cells rather than  $\alpha$  cells.
  - D) The  $\alpha$  cells will fail to initiate the shape changes necessary for mating.
- 105) Which of the following statements best describes a reason that *C. elegans* is an excellent model organism for investigating apoptosis? 105) \_\_\_\_\_
- A) *C. elegans* undergoes a fixed and easy-to-visualize number of apoptotic events during its normal development.
  - B) Death in *C. elegans* through a well-defined sequence of apoptotic events.
  - C) *C. elegans* has large cells wherein apoptosis is easily observed without the aid of a microscope.
  - D) Cells in *C. elegans* do not naturally undergo apoptosis, but can be induced to do so in the laboratory.
- 106) Binding of a growth factor to its receptor is most likely to immediately activate which of the following molecules? 106) \_\_\_\_\_
- A) protein kinase
  - B) phosphorylase
  - C) cAMP
  - D) adenylyl cyclase
- 107) Caffeine is an inhibitor of phosphodiesterase. Therefore, the cells of a person who has recently consumed coffee would have increased levels of which of the following molecules? 107) \_\_\_\_\_
- A) activated G proteins
  - B) adenylyl cyclase
  - C) cAMP
  - D) phosphorylated proteins
- 108) Which of the following responses is stimulated by cell signaling the formation of biofilms? 108) \_\_\_\_\_
- A) formation of mating complexes
  - B) aggregation of bacteria
  - C) inhibition of quorum sensing
  - D) secretion of substances that inhibit growth of foreign bacteria

- 109) Which of the following statements best would best explain the inability of an animal cell to reduce the  $\text{Ca}^{2+}$  concentration in its cytosol? 109) \_\_\_\_\_
- A) The calcium-gated ion channels in the cell membrane are inactive.
  - B) Insufficient numbers of protein kinases are present in the cell.
  - C) Excessive amounts of calcium are transported from the cytosol into the endoplasmic reticulum.
  - D) Insufficient amounts of ATP are present in the cytosol.
- 110) Which of the following statements best describes the effect of a mutation that knocks out the GTPase activity of a G protein? 110) \_\_\_\_\_
- A) The number of G proteins in the cell would increase.
  - B) The G protein would always be active.
  - C) The G protein would be inactivated by a G protein-coupled receptor/signal molecule complex.
  - D) The concentration of available GTP would decrease.
- 111) Which of the following pairs of molecules make up an active MPF? 111) \_\_\_\_\_
- A) a growth factor and mitotic factor
  - B) cyclin and tubulin
  - C) ATP synthetase and a protease
  - D) cyclin and a cyclin-dependent kinase
- 112) What is the name of the region on duplicated chromosomes where the sister chromatids are most closely attached to each other? 112) \_\_\_\_\_
- A) the centromere
  - B) the chromatin
  - C) the centrosome
  - D) the cohesin

113) 113) \_\_\_\_\_



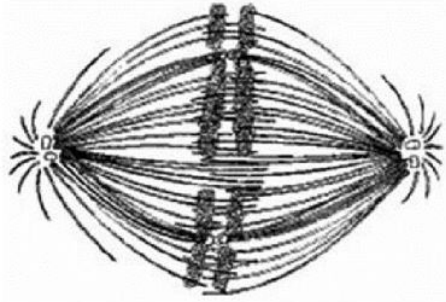
Amount of DNA per nucleus over the cell division cycle.

G1 is represented by which numbered part(s) of the cell division cycle in the accompanying figure?

- A) III
- B) I and V
- C) II
- D) IV

114) Use the figure to answer the question below.

114) \_\_\_\_\_



If the cell whose nuclear material is shown in the accompanying figure continues toward completion of mitosis, which of the following events would occur next?

- A) segregation of daughter chromosomes
- B) spindle formation
- C) nuclear envelope breakdown
- D) formation of telophase nuclei

115) Eukaryotic chromatin is composed of which of the following macromolecules?

115) \_\_\_\_\_

- A) DNA only
- B) DNA and RNA
- C) DNA and phospholipids
- D) DNA and proteins

116) Which of the following statements best describes density-dependent inhibition?

116) \_\_\_\_\_

- A) As cells become more numerous, the level of waste products increases, which slows metabolism and inhibits growth.
- B) As cells become more numerous, the protein kinases they produce begin to compete with each other, such that the proteins produced by one cell essentially cancel those produced by its neighbor.
- C) As cells become more numerous, the cell surface proteins of one cell contact the adjoining cells, and they signal each other to stop dividing.
- D) As cells become more numerous, they begin to squeeze against each other, restricting their size.

117) Which of the following cellular events occur in the  $G_1$  phase of the cell division cycle?

117) \_\_\_\_\_

- A) the beginning of mitosis
- B) normal growth and cell function
- C) DNA replication
- D) break down of the nuclear membrane

118) Which of the following characteristics would be most important for a chemotherapeutic drug designed to treat cancer cells?

118) \_\_\_\_\_

- A) It specifically inhibits cells entering  $G_0$ .
- B) It does not interfere with metabolically active cells.
- C) It specifically inhibits the cell division cycle in rapidly dividing cells.
- D) It is safe enough to prevent all apoptosis.

119) In a diploid cell with four chromosome pairs ( $2n = 8$ ), how many centromeres will be found in a nucleus at  $G_2$  of the cell division cycle?

119) \_\_\_\_\_

- A) 4
- B) 16
- C) 8
- D) 32

120) If there are 24 centromeres in a cell at anaphase of mitosis, how many chromosomes will be found in each daughter cell following cytokinesis?

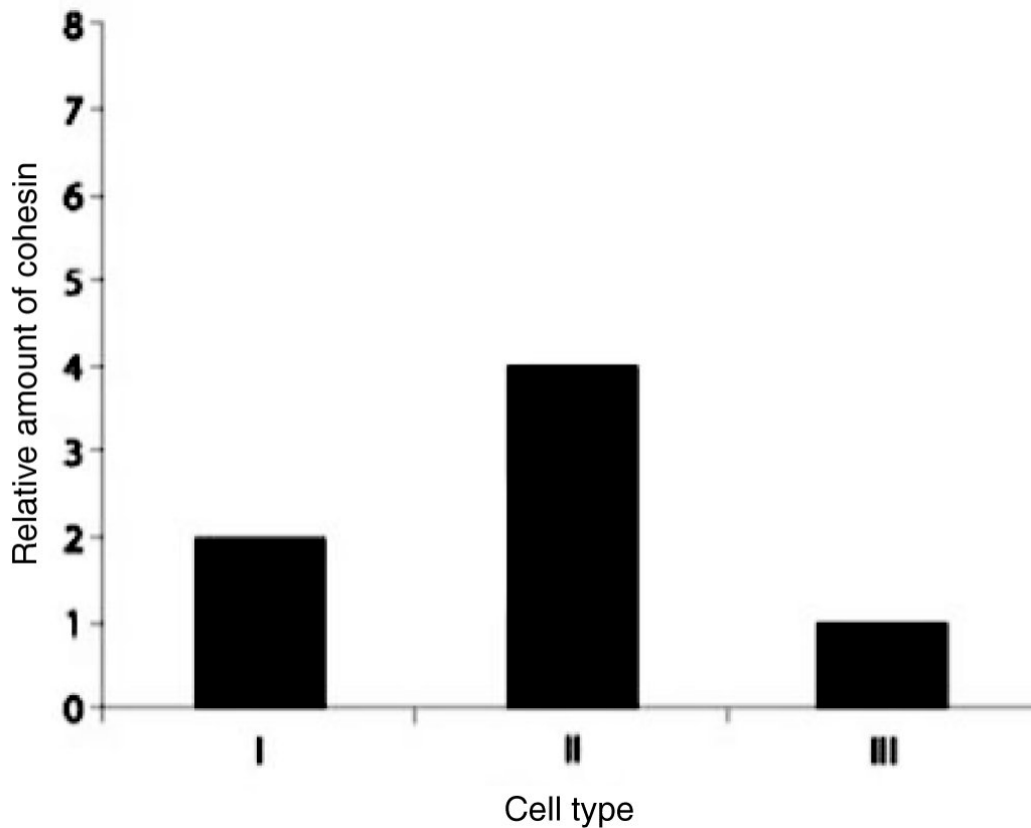
120) \_\_\_\_\_

- A) 6
- B) 48
- C) 24
- D) 12

- 121) Genetic variation leads to genetic diversity in populations and is the raw material for evolution. Which of the following statements best represents the connection between reproduction and evolution? 121) \_\_\_\_\_
- A) In order for evolutionary pressures to affect sexually reproducing organisms, mutations must occur in the zygote after fertilization.
  - B) Plants that use sexual reproduction are rare since this type of reproduction in plants does not contribute to genetic diversity and evolutionary pressures select against them.
  - C) Since prokaryotic organisms reproduce asexually, they have no mechanism to add genetic diversity for evolutionary pressures to act upon.
  - D) Sexual reproduction increases genetic variation because random mutations can be shuffled between organisms.
- 122) Which of the following events happens at the conclusion of meiosis I? 122) \_\_\_\_\_
- A) Homologous chromosomes of a pair are separated from each other.
  - B) Sister chromatids are separated.
  - C) The chromosome number per cell remains the same.
  - D) Four daughter cells are formed.
- 123) Which of the following processes occurs in meiosis but not in mitosis? 123) \_\_\_\_\_
- A) chromosome replication
  - B) alignment of chromosomes at the metaphase plate
  - C) condensation of chromosomes
  - D) synapsis of chromosomes
- 124) Which of the following processes facilitates the fastest way for animal species to adapt to a changing environment? 124) \_\_\_\_\_
- A) mutation
  - B) mitosis
  - C) asexual reproduction
  - D) sexual reproduction
- 125) How do cells at the completion of meiosis compare with cells that are in prophase of meiosis I? 125) \_\_\_\_\_
- A) The cells have half the number of chromosomes and half the amount of DNA.
  - B) The cells have the same number of chromosomes and half the amount of DNA.
  - C) The cells have half the amount of cytoplasm and twice the amount of DNA.
  - D) The cells have half the number of chromosomes and one-fourth the amount of DNA.

126) Multiple cells from the same species were isolated, the relative cohesin protein content for each type was determined, and the results were plotted on the graph. Refer to the graph to answer the following question.

126) \_\_\_\_\_



Which sample is consistent with a cell that has completed mitosis?

- A) I                      B) II                      C) III                      D) Either I or II

127) A particular organism has 46 chromosomes in its karyotype. Which of the following statements is correct regarding this organism?

127) \_\_\_\_\_

- A) It reproduces asexually.  
 B) It produces gametes with 23 chromosomes.  
 C) It must be human.  
 D) It must be an animal.

128) Which of the following characteristics are part of the sexual life cycle of most fungi but are not part of the sexual life cycles of plants or animals?

128) \_\_\_\_\_

- A) fertilization                      B) a unicellular haploid stage  
 C) gametes                      D) a zygote stage

129) Which of the following statements best describes homologous chromosomes?

129) \_\_\_\_\_

- A) They align on the metaphase plate in meiosis II.  
 B) They were inherited from the same parent.  
 C) They carry information for the same traits.  
 D) They carry the same alleles.

130) Which of the following statements describes the chromosomal makeup of each daughter cell after telophase of meiosis I?

130) \_\_\_\_\_

- A) The cells are diploid, and the chromosomes are each composed of two chromatids.
- B) The cells are diploid, and the chromosomes are each composed of a single chromatid.
- C) The cells are haploid, and the chromosomes are each composed of a single chromatid.
- D) The cells are haploid, and the chromosomes are each composed of two chromatids.

Answer Key

Testname: FINAL EXAM2 BIOL 2110C CELL AND MOLECULAR

- 1) A
- 2) C
- 3) A
- 4) C
- 5) D
- 6) D
- 7) A
- 8) B
- 9) C
- 10) A
- 11) C
- 12) D
- 13) C
- 14) B
- 15) A
- 16) C
- 17) B
- 18) B
- 19) C
- 20) B
- 21) B
- 22) D
- 23) C
- 24) B
- 25) D
- 26) A
- 27) A
- 28) D
- 29) B
- 30) B
- 31) A
- 32) B
- 33) B
- 34) D
- 35) B
- 36) D
- 37) C
- 38) D
- 39) C
- 40) C
- 41) B
- 42) B
- 43) A
- 44) C
- 45) A
- 46) B
- 47) D
- 48) A
- 49) C
- 50) A



Answer Key

Testname: FINAL EXAM2 BIOL 2110C CELL AND MOLECULAR

- 51) D
- 52) B
- 53) C
- 54) C
- 55) A
- 56) C
- 57) A
- 58) B
- 59) A
- 60) D
- 61) D
- 62) B
- 63) D
- 64) B
- 65) D
- 66) A
- 67) A
- 68) A
- 69) D
- 70) D
- 71) C
- 72) C
- 73) A
- 74) A
- 75) D
- 76) B
- 77) A
- 78) A
- 79) B
- 80) A
- 81) C
- 82) B
- 83) D
- 84) C
- 85) B
- 86) D
- 87) C
- 88) D
- 89) A
- 90) D
- 91) A
- 92) D
- 93) C
- 94) C
- 95) C
- 96) D
- 97) C
- 98) A
- 99) D
- 100) C

## Answer Key

Testname: FINAL EXAM2 BIOL 2110C CELL AND MOLECULAR

- 101) C
- 102) A
- 103) A
- 104) D
- 105) A
- 106) A
- 107) C
- 108) B
- 109) D
- 110) B
- 111) D
- 112) A
- 113) B
- 114) A
- 115) D
- 116) C
- 117) B
- 118) C
- 119) C
- 120) D
- 121) D
- 122) A
- 123) D
- 124) D
- 125) D
- 126) C
- 127) B
- 128) B
- 129) C
- 130) D

## B. Microbiology Now: Is Another Influenza Pandemic on the Way?

Bloom's Taxonomy: Evaluating

ASMcue Outcome: 8.3

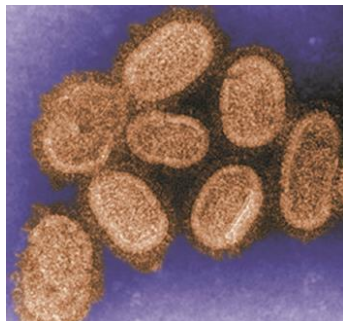
Learning Outcome: 18.20

In 1918 a pandemic (worldwide epidemic) of influenza swept across the world infecting 500 million people and killing nearly a fifth of them. The pandemic strain of influenza virus was particularly virulent, killing many otherwise healthy people. In 2005, scientists revived the 1918 killer strain of influenza (photo) from tissues of one of its victims in order to determine why this strain was so virulent.

Health officials today are concerned that new highly virulent influenza viruses may be formed from the exchange of genes between different strains. It is well known that influenza viruses that infect humans can also infect birds and swine. When an animal is infected by more than one strain, their genes can mix—a process called re-assortment—to form viruses with new properties. A major worry today is that influenza virus strain H5N1, which has caused large influenza outbreaks in poultry and wild birds but does not transmit well to or between people, could re-assort and trigger a new human influenza pandemic.

Scientists are focused on how H5N1 gains transmissibility in a new host. In a major study,<sup>1</sup> researchers were surprised to find that either one of two different genes transferred to the H5N1 virus from a recent human influenza strain (H1N1) allowed H5N1 to be spread by the airborne route between guinea pigs, a new phenomenon for this virus. Changes in the transmission pattern of influenza virus can thus occur very quickly.

Influenza viruses are particularly dangerous pathogens because they are easily spread in infectious droplets and their genetics allows them to rapidly become transmissible in new hosts. Is a new human influenza pandemic in the making? Stay tuned.

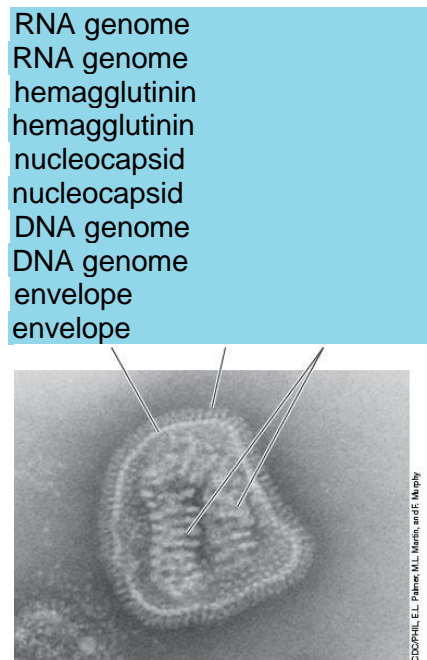


<sup>1</sup>Zhang, Y., et al. 2013. H5N1 hybrid viruses bearing 2009/H1N1 virus genes transmit in guinea pigs by respiratory droplet. *Science* 340 (6132), 3 May 2013.

### Part A - The Influenza A Virus

The structure of the influenza virus is similar to many other viruses. A virion is about 100 nm in diameter. Label the virion shown below.

Drag and drop the correct label to the blanks on the figure. Some answers will not be use



### Part B - Characteristics of Influenza

The influenza virus is composed of the typical viral structures such as genetic material, capsid proteins, and an envelope from its host. Which of the following statements correctly characterizes influenza?

#### Select all that apply

Select all that apply.

- ☐ Influenza is slow to mutate, making it difficult to cross host species.
- ☐ Influenza has an envelope consisting of protein, a lipid bilayer, and external glycoproteins.
- ☐ Influenza is a highly infectious airborne disease.
- ☐ Influenza is a single-stranded, negative-sense RNA virus.

It is common when there is an influenza outbreak to hear about it in the news. Usually, the virus is given a name that includes "Hs" and "Ns." In the next section, you will look at how an influenza strain is named.

### Part C - Naming a Viral Strain of Influenza

Strains of the influenza virus are often named with an "H" and an "N," such as those mentioned previously, H5N1 and H1N1, based on specific surface glycoproteins. One is responsible for virus attachment, while the other is essential for viral release from host cells.

Select the best answer for each blank

- hyaluronic acid
- hemagglutinin
- neuraminidase
  - hemolysin
- nalidixic acid

1. The antigen responsible for attachment is .
2. The antigen responsible for viral release is .

#### Part D - Antigenic Drift and Antigenic Shift

The influenza virus undergoes antigenic drift and antigenic shift, which result in changes to the glycoproteins on the surface of the virus. This changes how the host responds to the virus and also how it is transmitted among different species.

Sort the descriptions below into the bins they describe

- Host recognizes virus
- Previous vaccines do not work on current virus.
- A new surface antigen forms due to completely different RNA.
- Host makes virions containing genes from multiple strains.
  - Single mutation results in new glycoprotein.
- Host no longer recognizes virus.

- Antigenic drift
- Antigenic shift
  - Both

- Neither

**Part E - Influenza's Impact on Public Health**

As mentioned in the introductory text, influenza pandemics are serious events that affect a large portion of the population. Most fatal consequences stem from secondary infections resulting from weakened immune system after infection, such as bacterial pneumonia. To prevent pandemics, what steps are taken to protect the population from influenza?

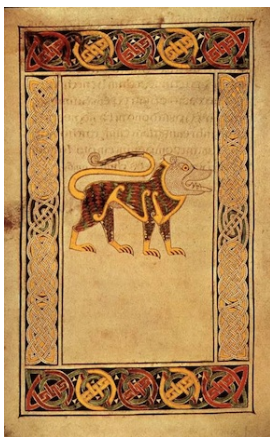
**Select the best answer.**

- ☐ Influenza viruses infecting large portions of the populations from previous years are disabled and used to confer immunity as a vaccine.
- ☐ Samples of major emerging strains of influenza virus obtained through worldwide surveillance are used to prepare a vaccine that is administered en masse.
- ☐ Contact with live animals known to carry influenza virus is limited to those with proper protection; meats from swine and avian sources are cooked thoroughly to prevent transmission.
- ☐ Susceptible populations such as the elderly and the immunocompromised are given prophylactic treatments of adamantanes and neuraminidase inhibitors.

Part I: Images



Slide 1.



Slide 2.



Slide 3. Choose one work of art to write on.





Slide 4.



Slide 5.

### Part III: Essay Images





## SFCC AHST 2110 History of Art I: Final Exam

**Part I** List the following information for each image and then write a short essay.

1. Title (with location, if applicable) 1 1/2 pt.
2. Culture/period 1 pt.
3. Date (within 100 years) 1/2 pt.
4. Extra credit for artist, if applicable 1/2 pt.

The short essay is to include a **formal (visual) analysis** and **discussion of the significant aspects** of the work of art. (5-6 full sentences) 8 pt.

Suggestions:

- Discuss the *subject* and *function* of the work of art.
- What does the work tell us about the *culture* in which it was created?
- “How might the subject *exemplify beliefs or themes* within the culture?”
- How does it relate to other works of art in the development of a theme or style?

**Part II** Vocabulary: 1) define the term and 2) provide a visual example (a work of art) that best describes the term. 4 pt.

coffers  
typology  
illuminated manuscript  
oculus  
reliquary

**Part III** Essay 25 pt.

**Note: this essay is worth 25 points therefore ideas should be fully discussed.**

First, list the title of this work of art then begin your essay based on the following concepts:

Ushering in an era of **Peace and Prosperity**, Augustus Caesar dedicated this work of art to celebrate his achievements and promote social and political ideals. Discuss the formal (visual) and iconographical aspects of this work of art and the ways in which it promotes the ideals of the empire. **Address all three images in your essay.**

## Lab 4: Thomson Cathode Ray Tube Experiment

### Purpose

To duplicate the Thomson cathode ray tube experiment and calculate from collected data the charge to mass ratio ( $q/m_e$ ) of an electron.

### Background

As scientist began to examine atoms, their first discovery was that they could extract negatively charged particles from atoms. They called these particles electrons. In order to understand the nature of these particles, they wanted to know how much charge they carried and how much they weighed. In 1897, John J. Thomson showed that if you could measure how much a beam of electrons were bent in an electric field and in a magnetic field, you could determine the charge to mass ratio ( $q/m_e$ ) for the particles (electrons). Knowing the charge to mass ratio ( $q/m_e$ ) and either the charge on the electron or the mass of the electron would allow you to calculate the other. Thomson could not obtain either in his cathode ray tube experiments and had to be satisfied with just the charge to mass ratio.

### Procedure

1. Start *Virtual ChemLab* and select *Thomson Cathode Ray Tube Experiment* from the list of assignments. The lab will open in the Quantum laboratory.
2. What source is used in this experiment? (The source is on the left. Drag your cursor over it to identify it.)

-

What type of charge do electrons have?

-

What detector is used in this experiment?

-

3. Turn on the *Phosphor Screen*. What do you observe?

-

4. Drag the lab window down the left and the phosphor screen window up and right in order to be able to minimize overlap. Push the *Grid* button on the phosphor screen, and set the Magnetic Field to  $30\ \mu\text{T}$ . (Click the button above the tens place three times.) What happens to the spot from the electron gun on the phosphor screen?

-

5. Set the *Magnetic Field* back to zero and set the *Electric Field* to 10 V. What happens to the spot from the electron gun on the phosphor screen?

-

Where should the signal on the phosphor screen be if the electric and magnetic forces are balanced?

-

6. Increase the voltage of the Electric Field to move the spot several centimeter from the center. To make your measurements more accurate, move the spot until it aligns with a grid marking. What is the voltage?

-

What is the distance from the center that the spot has moved (in cm)?

-

7. Increase the magnetic field strength until the spot reaches the center of the screen. What magnetic field creates a magnetic force that balances the electric force?

-

Deflected Distance (d)	Electric Field (v)	Magnetic Field (B)

Summarize your data.

8. In a simplified and reduced form, the charge to mass ratio ( $q/m_e$ ) can be calculated as follows:

$$q/m_e = (5.0826 \times 10^{12}) \cdot V \cdot d/B^2$$

where  $V$  = the electric field in volts,  $d$  = the deflected distance from center in cm, and  $B$  = magnetic field in  $\mu T$ .

What is your calculated value for the charge to mass ratio for an electron ( $q/m_e$ )?

-

The modern accepted value is  $1.76 \times 10^{11}$ . Calculate your percent error as follows:

$$\% \text{ Error} = | \text{your value} - \text{accepted value} | \div \text{accepted value} \times 100$$

-

Think Outside the Box:

1. Compare and contrast regular sunlight with the beam emitted from the Cathode Ray Tube.
2. When comparing the beam emitted from the Cathode Ray Tube and regular sunlight, we notice that some particles are more dominant than others. What do we do when we come in contact with people who are more dominant than others?
3. What would be an application for a modern day Cathode Ray Tube that has not been invented yet? (Can be as creative as you would like and does not have to be 100% realistic).



# Grisaille Assignment

## Part 1 - Creating the Grisaille:

Your assignment is to Paint a monochromatic painting of a single flower using only browns or only grays. You will be working from a reference picture. Please send me a picture of the flower that you would like to paint, and I will print out two copies for you. You will receive a colored version and a black and white version of your picture. As you begin to paint you will be using your black and white photo.

- **Step one** is to tone your canvas a nice medium value.
- **Step two** is to carefully draw in your flower with paint making sure that it as accurate as you can make it and that it fills the canvas.
- **Step three** is to paint in the shadows. The shadows help our brains understand what the shape of the flower is. Putting in the shadows correctly in one of the most important things to getting your object to look like what it is, so be thoughtful and careful with this step.
- **Step four**, paint in some of the background. You will have to decide if you are going to make the background a darker or lighter value than your flower or if you will have mixed values in the background. It is important to set your flower apart from the background.
- **Step five**, now you will paint in the highlights of your flower. Remember that highlights are not the same as the mid-tones. It is important to maintain the mid-tones. Don't completely paint over them It is the division between the shadows, the mid-tones and the highlights that tell our minds what an object is and how it is shaped.
- **Step six** is to examine your painting carefully. You are looking to see if everything is the right shape and size. Look at the negative space and compare it to your reference picture. Are your shadows all the right shape and size. What about your highlights. This is the point where you fix everything that is not quite right. It is easier to fix things at this stage then when you have added more detail.
- **Step seven** is to creating smooth gradients where they are needed. there may be places where your shadows, mid-tones and highlight need to have a smoother transition. Remember how important the edge of your shadow is and be careful not to move it too much. Changing the shape of your shadow will actually change the shape of your object. This might be the hardest part so be aware of the values of the paint you are using and try not to alter the map of values that you have created.
- **Step eight** is the fun part. Now you can go back and start adding little bits of detail. Take your time. Be careful not to paint over the different areas of value that you have created.

Once you have completed part 1 have me check your progress and then I will let you move on to part 2. Do not start on part 2 until you have showed me your work.

## Part 2 - Glazing:

Now that you have finished your grisaille you are ready to start glazing in color over your black and white painting. Here is what you need to keep in mind. Glazing means that you are placing transparent layers of color over your grisaille. If you use white in your color mixture or if you do not use enough medium you risk covering up all the hard work that you have done. It is better to use many thin layers and build up the intensity that you want then it is to just paint your color in all at once.

- **Step one** is to mix medium into your paint to form a glaze. You should be able to see through the paint to your palette. The appearance should be as transparent (clear) as Gator aid but the consistency (thickness) of the paint should be more like milk or melted ice cream.

- **Step two** is to select small areas, especially if you are working with acrylics, to glaze color over. Take care to lay in your glaze in a smooth transparent manner. This is not where we want to show brush strokes. If the paint goes on too thickly you can quickly wipe it out with a paper towel, but be careful, with acrylics this will soften the under layer and if you are too aggressive you will end up having to repaint part of your grisaille. Oils rarely give you the same problem especially if you have given your under painting acquitted time to dry.
- **Step three** is just more of what you have just done. You can continue to build up layers of glaze until you are satisfied with your painting.

Once you have completed both Step 1 and Step 2 you may submit your painting to me for grading.

### **Grading Assessment:**

**For this assignment you will be graded on five things.**

1. I will be looking at how well you followed and completed the steps given in the assignment.
2. How well you have rendered correct shapes within your painting.
3. I will be looking at how well you have maintained a clear division in your values, your shadows, mid-tones and highlights.
4. I will grade you on how well you maintained your grisaille under your glazes.
5. And upon the overall effort that you put into your painting.

**Learning outcomes for this assignment are:**

- Render more complex shapes.
- Recognize value, shadow, mid-tone and highlight.
- Blend smoothly
- Use problem solving skills in order to correct mistakes.

Acquire skill in creating a glaze

**COMM 2140: Small Group Communication**  
**Assignment for Critical Thinking Assessment**

This reflection assignment is your chance to look back on the concepts you've learned this semester and show how you've applied those ideas directly to your small group work in this course. Take a little time to think about and review our class discussions and readings this semester before getting started, and feel free to use your textbook and other class materials as you complete this assignment.

Please prepare a short (500 to 750 words, double-spaced) self-reflective essay regarding your application of class concepts to your work in this course.

In your essay, you should explain what issues arose in your final presentation group and how your group members dealt with them. To do this, think about small group communication dynamics, small group roles, and dealing compassionately with diversity as you discuss how your final presentation group operated while working together over this semester. Be honest and make sure you clearly explain how your group used ideas from this class during your small group meetings. If you feel it's relevant, you may also discuss how you personally used concepts from the course materials in our class discussions.

You must name and define one small group communication concept covered in the assigned course materials (to include but not limited to our textbook, *The Fundamentals of Small Group Communication*). To do this, choose a concept that's important to you and/or your group's performance and then use the concept to help you talk about this semester. You may also use outside sources, but all information that does not come from course materials must be correctly cited and documented in the text and on an included Works Cited page.

This essay must be completed outside of class and is due Week 14, the week before your final group presentation is due.

**Be sure to clearly explain your role in group meetings and decisions, and to show how your group members worked together and applied concepts from the course to your interactions.**



## **Introduction to Archaeology and Lab**

**Course # 1120C**

### **Instructor information:**

**Lisa L. Sparks, M.A., RPA 17613**

[Lisa.sparks@enmu.edu](mailto:Lisa.sparks@enmu.edu)

Watch the movie “The Lost Vikings” on the link provided. Consider the methodologies employed to obtain the data that led to the interpretation of how the Vikings of Greenland perished. Then, consider what we can learn from this episode in the past. Write a paragraph for each question using the terminology we have been learning in class.

- 1) What techniques were used to investigate the disappearance of the Vikings?
- 2) What evidence was discovered that allowed scientists to determine what happened to the Greenlanders?
- 3) Who was their economic trade partner and what materials were traded?
- 4) Note the differences in dietary adaptations between Greenland and Iceland. How did this contribute to their fall?

Secrets of the Dead: The Lost Vikings <https://youtu.be/F1idr1hLGEo>

## Case Study: American Chestnut

### Introduction

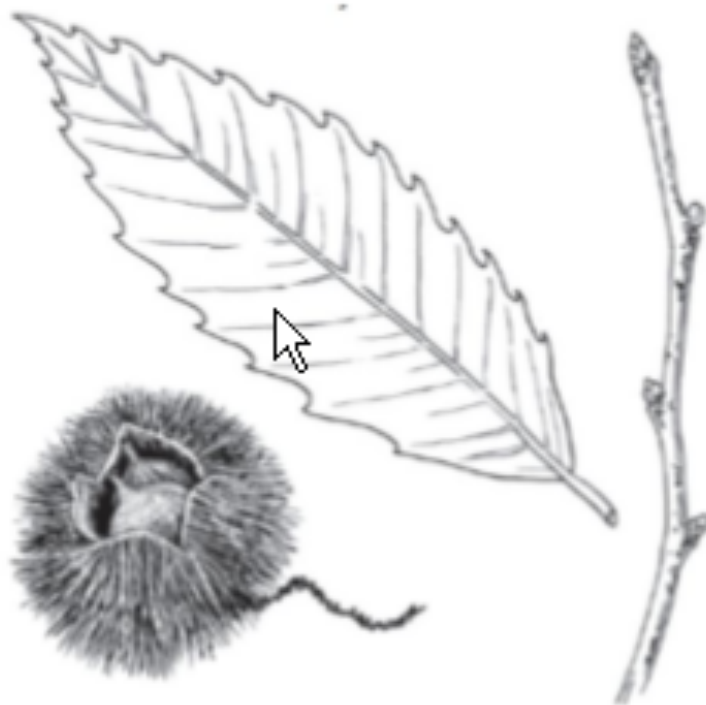
The American chestnut was a keystone species in the ecology of the Appalachians. American Chestnut (*Castanea dentata*) trees once dominated the forests of the eastern United States, with an estimated 4 billion trees from Maine to Mississippi and Florida. It is estimated that 25% of the trees in the Appalachian Mountains were American Chestnuts. They could grow up to 120 feet tall and 5 feet in diameter. They were awe-inspiring, the redwoods of the east coast, but with the bonus of edible nuts. Chestnuts were roasted, ground into flour for cakes and bread, and stewed into puddings. The leaves of the trees were boiled down into medicinal treatments by Native Americans. American Chestnuts were nearly a perfect food source for both settlers and their livestock, as well as an array of wildlife from turkeys to bears. They are high in fiber, vitamin C, protein, and carbohydrates, and low in fat. Additionally, American Chestnut trees blossom relatively late, making their nut crop more reliable because it does not get harmed by the late frosts that often diminish the mast crops of oaks and hickories. In the first 40 years of the 20th century, the pathogenic fungus chestnut blight (*Cryphonectria parasitica*) destroyed 3.5 billion American chestnut trees. What had been the most important tree in our Eastern forest was reduced to insignificance. No comparable devastation of a species exists in recorded history.

The first chestnut tree may have been infected as early as the 1890s, with chestnut blight first reported in 1904 when it was spotted on a tree in what was then the New York Zoological Park, now known as the Bronx Zoo, in the borough of The Bronx, New York City, by chief forester Hermann Merkel. The chestnut blight was accidentally introduced into North America on imported Asiatic chestnut trees. Merkel estimated that by 1906 blight had infected 98 percent of the chestnut trees in the borough. While Chinese Chestnut trees evolved with the blight and developed a strong resistance, the American chestnut trees had little resistance, and most trees were killed by the chestnut blight before they reached 15 feet in height. Panic over the chestnut blight was widespread by the 1910s. State commissions were created to study it and farmers were implored to chop down trees with any signs of blight. "Woodman burn that tree; spare not a single bough," begged The Citizen, a paper from Honesdale, Pennsylvania. Even the Boy Scouts tried to save the American Chestnut trees, scouring forests for blighted trees as part of an unsuccessful effort to create an infection-free zone. While all attempts to stop the chestnut blight ended in complete failure, the tree did not go extinct. The chestnut blight does not affect the root system, and American chestnut sprouts continue to rise again and again from the forest floor before succumbing to the blight, only to be followed by more sprouts. Efforts to restore the American chestnut have been ongoing for over ninety years. Breeding programs that collect pollen from one of the few discovered mature pure-bred American chestnuts left in the forest and share it with other mature specimens have been attempted to promote natural resistance among existing American chestnut populations. Researchers with the American chestnut Cooperators Foundation oversee the crossing of surviving American chestnuts and have yielded a number of progeny with low levels of blight resistance, but this process is painstakingly slow. Another restoration effort is the development of blight-resistant hybrid American chestnut trees through the backcross breeding programs of the American Chestnut Foundation. The technique of using multiple backcrosses with the resistant parent started in 1981. The breeding program crosses American chestnut trees with Chinese

chestnut or Japanese chestnut trees that are naturally resistant to the blight. After the initial hybridization, subsequent back-crossings with American chestnut trees progressively reduce the proportion of genetic material from the Asian parent, ultimately resulting in the third backcross hybrids (BC3 F1) that are 94 percent American chestnut but retain the genes for blight resistance. Other scientists have discovered naturally occurring viruses in the forest that are, in effect, a blight of the chestnut blight, infecting it and weakening its destructive power. In Europe, such “hypovirulence” effectively stopped the blight from destroying that continent’s chestnuts.

Unfortunately, hypovirulence does not seem able to spread on its own in North America in the wild, which would be essential for it to bring back American chestnuts to the Eastern forest. The newest effort is the development a genetically modified version of the American chestnut that can survive the chestnut blight, by inserting a gene taken from wheat that protects against the fungus that causes the blight. Scientists at the State University of New York (SUNY) College of Environmental Science and Forestry hope to someday release it into the wild. If approved by federal agencies, it would be the first time a genetically modified organism would be intentionally set free into nature to reproduce. “If America’s beloved [American chestnut] tree can thrive again in the Appalachian canopy, it is because of those who neither accepted its demise, nor abandoned its story to legend.” -Matt Collins

Figure 1. American Chestnut leaf, twig, and bur containing nuts



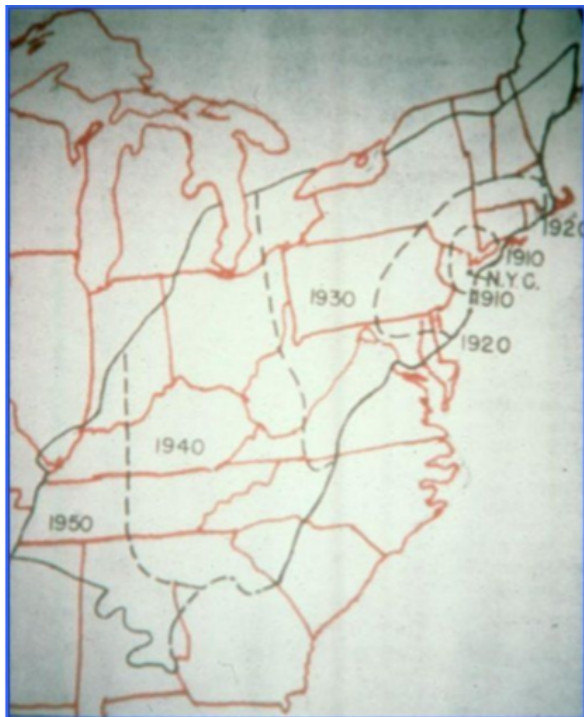
Source: Virginia Department of Forestry

Figure 2. Historic range of the American Chestnut tree (*Castanea dentata*)



Source: American Chestnut Foundation

Figure 3. Map depicting the spread of the chestnut blight



Source: American Chestnut Foundation

## Questions

1. Describe how common were American Chestnut trees in their native range prior to 1904 in terms of number, the percentage of trees that were chestnuts, and geographic range.
2. Describe the ecological value of American chestnuts?
3. Describe the economic value of American chestnuts?
4. How common are they now?
5. Describe what happened to the American Chestnut?
6. The airborne Chestnut blight spread up to 50 mi (80 km) per year in all directions after it was discovered at "ground zero" at the Bronx Zoo in New York City in 1904. If it traveled an average of 29.4 miles per year, estimate what year it reached one of the most distant areas of the American Chestnut's former range 1,176 miles away in Kosciusko, Mississippi. Show all of your work and clearly label each step.
7. What efforts are currently underway to save the American Chestnut?
8. Why are the remaining mature American Chestnut trees so valuable?
9. Go to <https://www.acf.org/resources/identification/> to find the information necessary to answer the following question: The number of large surviving trees over 60 cm (24 in) in diameter within its former range is probably fewer than 100, but if you go hiking in the forest somewhere within the historic range of the American Chestnut tree, there is a very small chance you might discover one. Let's assume you happen upon a tree in the forest that looks like it might a mature American Chestnut tree, and you are one of the few citizen scientists who is aware enough to take advantage of this once-in-a-lifetime opportunity. How can you distinguish an American Chestnut tree from other closely related trees, such as Chinese, Japanese, and European Chestnut trees?
10. Where do you think might be a good location to find mature, blight-resistant American Chestnut trees? Justify your choice with evidence and reasoning.
11. Refer to the Tree Locator Form. What can you do if you find an American Chestnut tree that will help ensure the future of the species?
12. Ecologists use the term carrying capacity to define the maximum population of a particular species that a habitat can support over a given amount of time. American chestnuts are a favorite food for deer, as well as for squirrels, jays, quail, crows, woodpeckers, raccoons, rabbits, and foxes. If we collect 1,080,000 chestnuts per hectare and each chestnut weighs 2.65 g, how many kilograms of chestnuts are produced per hectare? Show all of your work and clearly label each step.
13. If you planted a chestnut orchard today, and in 20 years you were able to harvest 1,000 Kg/hectare each year, and you harvested and sold the chestnuts for \$12.50/Kg, how much

money would you make each year per hectare from your chestnut trees? Show all of your work and clearly label each step.

14. If each deer requires 3 kilograms of food per day, calculate how many deer each hectare of this forest could support for a year. Show all of your work and clearly label each step.
15. There are approximately 259 hectares per square mile. How many deer could a square mile of forest of mature American chestnut trees support for a year if they were the only organism consuming their nuts? Show all of your work and clearly label each step.
16. Let's assume that about 15% of the mast (tree nut) crop is eaten by other species that feed in the trees. In other words, only 85% reaches the ground. Adjust your carrying capacity for a hectare of forest to reflect this assumption. Show all of your work and clearly label each step.
17. How would the presence of other animals that eat chestnuts from the ground affect the number of deer the forest can support?
18. American chestnut trees yielded lumber that was used to build homes, barns, furniture, cabinetry, and musical instruments. Historical accounts, and still existing wood products, provide solid evidence that its wood is light but strong, and resistant to rot. Let's assume you planted 60 American chestnut trees per hectare, and they would be harvested by your grandchildren at 75 years of age for lumber (after yielding chestnuts for many years), and each tree was valued at \$225 (in today's dollars). How much money would your grandchildren receive (in today's dollars) per hectare from the harvest?
19. Researchers at the State University of New York (SUNY) College of Environmental Science and Forestry have developed a genetically modified version of the American chestnut that can survive the chestnut blight. They inserted a gene that encodes an enzyme that essentially "detoxifies" the destructive acid emitted by the fungal infection. This wheat gene produces an enzyme called oxalate oxidase (OxO), which detoxifies the oxalate that the fungus uses to form deadly cankers on the stems. This common defense enzyme is found in all grain crops as well as in bananas, strawberries, peanuts and other familiar foods consumed daily by billions of humans and animals, and it's unrelated to gluten proteins. Scientists who advocate this approach argue that this is a minuscule alteration compared to the genetic alterations produced by traditional breeding methods. Genetic engineering allows us to produce a blight-resistant American chestnut that's genetically over 99.999 percent identical to wild-type American chestnuts. Scientists who oppose this approach argue that history has shown us that just because science can do something does not always mean it should. Our scientific and technological choices must be informed by broader ethical, health and environmental considerations, and in this case, there is some risk the first time a genetically modified organism would be intentionally set free into nature to reproduce. Genetic modification may offer modern solutions to modern ecological challenges; however, the technology may also pose

ecological threats. Perhaps the threat that incites the most concern is gene flow from transgenic trees to sexually compatible wild trees. For example, if a transgenic poplar tree modified for increased insect resistance pollinated a compatible wild poplar tree, the transgene may be present in the resulting progeny. This would be particularly worrisome if the escaped gene gave its host a competitive advantage over other trees, which also raises concerns about the potential for genetically modified trees to become a new invasive species. In the case of chestnut, it will actually be the goal for the transgenic tree to reproduce with the wild American chestnut, to increase genetic diversity of the transgenic trees, while also disseminating the transgenes that confer blight resistance. Other potential risks of genetically modified trees include unintended impacts on other organisms. **Do you support the release of a genetically modified version of the American Chestnut into the wild? Defend your position with evidence and reasoning.**

## Writing Assignment for RELG 1123

Choosing a primary text from Genesis, research and reflect on the influence of bias, presuppositions, and assumptions. Identify and explain how the text has been used and the biases accompanying such use. Develop an annotated bibliography of sources containing evidence to support your position. Critically evaluate the evidence that you find.

For full credit, offer a clear thesis statement and strong conclusion. The assignment should be a minimum of 300 words, use proper citation, and include all references. Please submit the assignment as a Word doc file. Due by Week 2 of the course. Proofread the assignment before submitting it.

For assistance in writing, visit The ENMU Writing Center @ <https://www.enmu.edu/academics/colleges-departments/college-liberal-arts-sciences/departments-languages-literature/special-programs/writing-center>. For general information about formatting, please visit the Purdue OWL Writing Lab @ [https://owl.purdue.edu/owl/purdue\\_owl.html](https://owl.purdue.edu/owl/purdue_owl.html).



Rubric for Writing Assignment for RELG 1123

Component Skill	Emerging	Developing	Proficient
Problem Setting: Delineate a problem or question.	Students state problem/question appropriate to the context.	Students state and define an open- ended problem/question appropriate to the context.	Students state, define, and describe components of an open ended problem/question appropriate to the context.
Evidence Acquisition: Identify and gather the information/data necessary to address the problem or question.	Students gather evidence addressing the problem/question from a mix of sources.	Students gather evidence addressing the problem/question from sources appropriate to the context while demonstrating some awareness of acquisition process, including personal assumptions.	Students gather an appropriate scope and depth of evidence sufficient to address a problem/question in context while demonstrating awareness of acquisition process, including personal assumptions.
Evidence Evaluation: Evaluate evidence/data for credibility (e.g. bias, reliability, validity), probable truth, and relevance to a situation	Students can describe appropriate sources.	Students are sometimes able to evaluate credibility and relevance of sources in addition to demonstrating some awareness of the evaluation process, including personal assumptions.	Students are able to evaluate credibility and relevance of sources in addition to demonstrating an awareness of the evaluation process, including personal assumptions.
Reasoning/Conclusion: Develop conclusions, solutions, and outcomes that reflect an informed, well-reasoned evaluation.	Students can sometimes identify common logical flaws. Students can sometimes describe weak and strong arguments.	Students can identify common logical flaws. Students can sometimes differentiate weak and strong arguments. Students can sometimes identify and employ evidence and reasoning to build an argument and reach probable conclusions/solutions based on the evidence.	Students can identify common logical fallacies. Students can differentiate weak and strong arguments. Students can identify and employ evidence and reasoning to build an argument and reach probable conclusions/solutions based on the evidence.

Class Management | Instructor | Help

## PHYS 1310 (Spring 2021) Norris Chapter 5 HW

**Chapter 5 HW Begin Date:** 2/9/2021 10:00:00 AM -- **Due Date:** 2/16/2021 4:00:00 PM **End Date:** 5/7/2021 11:59:00 PM**Problem 1:** Given Newton's First Law of Motion, what do we reasonably expect an object to do given the following scenarios?

ryan.norris@nmt.edu

@theexpertta.com - tracking id: 3N77-65-84-4D-9154-29595. In accordance with Expert TA's Terms of Service, copying this information to any solutions sharing website is strictly forbidden. Doing so may result in termination of your Expert TA Account.

**Part (a)** An object sits at rest with no unbalanced forces acting upon it. What do we expect this object to do?**MultipleChoice :**

- 1) The object will begin to move at a constant velocity.
- 2) None of these answers.
- 3) The object will begin to move with a changing velocity .
- 4) The object will remain at rest.

**Part (b)** An object is traveling with a constant velocity with no unbalanced forces acting upon it. What do we expect this object to do?**MultipleChoice :**

- 1) The object will slow down and eventually come to rest.
- 2) The object will speed up.
- 3) The object will begin to spin as it slows down.
- 4) None of these answers.
- 5) The object will remain at the same speed but change direction.
- 6) The object will remain at the same speed, traveling in the same direction.

**Part (c)** An object sits at rest with an unbalanced force acting upon it. What should we not expect this object to do? Asking another way, which of the following choices could not be an outcome?**MultipleChoice :**

- 1) The object will begin to move and then move with a constant velocity.
- 2) None of these answers.
- 3) The object will begin to move with a changing velocity.
- 4) The object will remain at rest.

**Problem 2:** A high-performance dragster with a mass of  $m = 1317$  kg can accelerate at a rate of  $a = 28.5$  m/s<sup>2</sup>.**Randomized Variables** $m = 1317$  kg $a = 28.5$  m/s<sup>2</sup>

ryan.norris@nmt.edu

@theexpertta.com - tracking id: 3N77-65-84-4D-9154-29595. In accordance with Expert TA's Terms of Service, copying this information to any solutions sharing website is strictly forbidden. Doing so may result in termination of your Expert TA Account.

**Part (a)** Write an expression for the magnitude of the net force,  $F_{\text{NET}}$ , that propels the dragster forward in terms of the variables provided.

**Expression :**

$F_{\text{NET}} =$  \_\_\_\_\_

Select from the variables below to write your expression. Note that all variables may not be required.

$\beta, \theta, a, d, g, h, i, j, k, l, m, P, S, t, w$

**Part (b)** If the track has length  $L$  and the dragster starts from rest, select the correct symbolic equation for how fast  $v_f$  the dragster is traveling when it finishes the run. (Assume that it accelerates at the same rate along the full length of the track.)

**SchematicChoice :**

$$\begin{array}{ccc} V_f = 2aL & V_f = \sqrt{2L} & V_f = \sqrt{2aL} \\ V_f = \sqrt{aL} & V_f = aL & V_f = \sqrt{2a} \end{array}$$

**Part (c)** If the track is  $L=400$  m long, what is the numerical value of the dragster's final speed,  $v_f$  in m/s?

**Numeric :** A numeric value is expected and not an expression.

$v_f =$  \_\_\_\_\_

**Problem 3:** A bullet with a mass of  $m = 15$  g is fired out of a rifle that has length  $L = 1.06$  m. The bullet spends  $t = 0.15$  s in the barrel.

ryan.norris@nmt.edu

@theexpertta.com - tracking id: 3N77-65-84-4D-9154-29595. In accordance with Expert TA's Terms of Service, copying this information to any solutions sharing website is strictly forbidden. Doing so may result in termination of your Expert TA Account.

**Part (a)** Write an expression, in terms of the given quantities, for the magnitude of the bullet's acceleration,  $a$ , as it travels through the rifle's barrel. You may assume the acceleration is constant throughout the motion.

**Expression :**

$a =$  \_\_\_\_\_

Select from the variables below to write your expression. Note that all variables may not be required.

$\alpha, \beta, \theta, a, b, d, g, h, j, k, L, m, P, S, t$

**Part (b)** Calculate the numerical value for the magnitude of the bullet's acceleration,  $a$  in  $\text{m/s}^2$ .

**Numeric :** A numeric value is expected and not an expression.

$a =$  \_\_\_\_\_

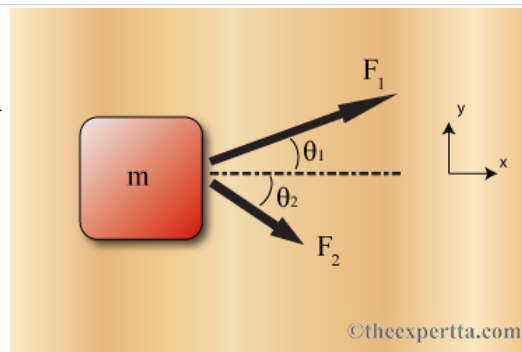
**Part (c)** What is the numerical value of the net force  $F_{\text{NET}}$  in newtons acting on the bullet?

**Numeric :** A numeric value is expected and not an expression.

$F_{\text{NET}} =$  \_\_\_\_\_

**Problem 4:** A crate sits on a wooden horizontal surface (a wooden floor). The figure shows a top view of this looking down onto the crate (gravity would be acting into the page). Man one and man two apply forces  $F_1$  and  $F_2$ , at angles of  $\theta_1$  and  $\theta_2$  respectively, with the goal of moving the crate in the  $x$ -direction. A resultant force of  $F_r = 29.5$  lbs in the  $x$ -direction is required to accomplish this. All of the forces are in the  $xy$  plane. If man one applies a force of  $F_1 = 23$  lbs at an angle of  $\theta_1 = 23^\circ$  from the positive  $x$ -axis, complete the following steps to determine the magnitude and angle of the force man two must apply.

ryan.norris@nmt.edu



©theexpertta.com

@theexpertta.com - tracking id: 3N77-65-84-4D-9154-29595. In accordance with Expert TA's Terms of Service, copying this information to any solutions sharing website is strictly forbidden. Doing so may result in termination of your Expert TA Account.

**Part (a)** Write an expression for  $F_r$  just as the crate starts to move using the sum of the forces in the  $x$ -direction in terms of the variables  $F_1, F_2, \theta_1$ , and  $\theta_2$ .

**Expression :**

$F_r =$  \_\_\_\_\_

Select from the variables below to write your expression. Note that all variables may not be required.

$\cos(\alpha), \cos(\phi), \cos(\theta), \cos(\theta_1), \cos(\theta_2), \sin(\alpha), \sin(\phi), \sin(\theta), \sin(\theta_1), \sin(\theta_2), \alpha, F_1, F_2, F_r, t$

**Part (b)** Write an equation for the sum of forces in the  $y$ -direction when the crate just starts to move using the specified coordinate system. Put your answer in terms of the variables  $F_1, F_2, \theta_1$ , and  $\theta_2$ .

**Expression :**

$\Sigma F_y =$  \_\_\_\_\_

Select from the variables below to write your expression. Note that all variables may not be required.

$\cos(\alpha), \cos(\phi), \cos(\theta), \cos(\theta_1), \cos(\theta_2), \sin(\alpha), \sin(\phi), \sin(\theta), \sin(\theta_1), \sin(\theta_2), \alpha, F_1, F_2, F_r, t$

**Part (c)** Combine these two equations to develop an expression for  $\tan(\theta_2)$  in terms of  $F_r, F_1, F_2$ , and  $\theta_1$ . Remember that the crate does not move along the  $y$ -direction.

**Expression :**

$\tan(\theta_2) =$  \_\_\_\_\_

Select from the variables below to write your expression. Note that all variables may not be required.

$\cos(\alpha), \cos(\phi), \cos(\theta), \cos(\theta_1), \cos(\theta_2), \sin(\alpha), \sin(\phi), \sin(\theta), \sin(\theta_1), \sin(\theta_2), \alpha, F_1, F_2, F_r, t$

**Part (d)** Solve numerically for the value of  $\theta_2$  in degrees.

**Numeric :** A numeric value is expected and not an expression.

$\theta_2 =$  \_\_\_\_\_

**Part (e)** Using this value for  $\theta_2$  and other known values, solve numerically for the value of  $F_2$  in lbs.

**Numeric :** A numeric value is expected and not an expression.

$F_2 =$  \_\_\_\_\_

**Problem 5:** In the figure, the net external force on the 24 kg mower is known to be 51 N.

**Randomized Variables**

$f = 29$  N

$v = 1.8$  m/s

ryan.norris@nmt.edu



©theexpertta.com

@theexpertta.com - tracking id: 3N77-65-84-4D-9154-29595. In accordance with Expert TA's Terms of Service, copying this information to any solutions sharing website is strictly forbidden. Doing so may result in termination of your Expert TA Account.

**Part (a)** If the force of friction opposing the motion is **29 N**, what force  $F$  (in newtons) is the person exerting on the mower?

**Numeric** : A numeric value is expected and not an expression.

$F =$  \_\_\_\_\_

**Part (b)** Suppose the mower is moving at **1.8 m/s** when the force  $F$  is removed. How far will the mower go before stopping in m?

**Numeric** : A numeric value is expected and not an expression.

$x =$  \_\_\_\_\_

**Problem 6:** A block with mass  $m = 7$  kg is sitting on a horizontal surface and not moving. The free-fall acceleration is  $g = 9.81$  m/s<sup>2</sup>. Please answer the following questions.  
ryan.norris@nmt.edu

@theexpertta.com - tracking id: 3N77-65-84-4D-9154-29595. In accordance with Expert TA's Terms of Service, copying this information to any solutions sharing website is strictly forbidden. Doing so may result in termination of your Expert TA Account.

**Part (a)** Write an expression for the magnitude of the force of gravity  $F_g$  on the block.

**Expression** :

$F_g =$  \_\_\_\_\_

Select from the variables below to write your expression. Note that all variables may not be required.

$\alpha, \beta, \theta, a, b, c, d, g, h, j, k, m, P, S, t$

**Part (b)** Calculate the magnitude of the force of gravity  $F_g$  on the block in Newtons.

**Numeric** : A numeric value is expected and not an expression.

$F_g =$  \_\_\_\_\_

**Part (c)** In what direction is the force of gravity in this problem?

**MultipleChoice** :

- 1) All of these choices.
- 2) None of these choices.
- 3) Upwards.
- 4) Downwards.
- 5) Sideways.
- 6) Force doesn't have a direction.

**Part (d)** What is the magnitude of the normal force  $F_N$  in Newtons?

**Numeric** : A numeric value is expected and not an expression.

$F_N =$  \_\_\_\_\_

**Part (e)** In what direction does the normal force act?

**MultipleChoice** :

- 1) All of these choices.
- 2) None of these choices.
- 3) Downwards.
- 4) Upwards.
- 5) Sideways.
- 6) Force doesn't have a direction.

**Problem 7:** The weight of an astronaut plus his space suit on the Moon is only **260 N**.

#### Randomized Variables

$$W = 260 \text{ N}$$

ryan.norris@nmt.edu

@theexpertta.com - tracking id: 3N77-65-84-4D-9154-29595. In accordance with Expert TA's Terms of Service, copying this information to any solutions sharing website is strictly forbidden. Doing so may result in termination of your Expert TA Account.

**Part (a)** How much do they weigh on Earth, in newtons, assuming the acceleration due to gravity on the moon is  $1.67 \text{ m/s}^2$ ?

**Numeric** : A numeric value is expected and not an expression.

$$W_{\text{Earth}} = \underline{\hspace{2cm}}$$

**Part (b)** What is the mass of the astronaut and his space suit on the Moon, in kilograms?

**Numeric** : A numeric value is expected and not an expression.

$$m_{\text{Moon}} = \underline{\hspace{2cm}}$$

**Part (c)** What is the mass of the astronaut and his spacesuit on the Earth, in kilograms?

**Numeric** : A numeric value is expected and not an expression.

$$m_{\text{Earth}} = \underline{\hspace{2cm}}$$

**Problem 8:** A teenager of mass  $m_1 = 52 \text{ kg}$  pushes backward against the ground with his foot as he rides his skateboard. This exerts a horizontal force of magnitude  $F_{\text{foot}} = 15 \text{ N}$ . The skateboard has  $m_2 = 2.3 \text{ kg}$ .

#### Randomized Variables

$$F_{\text{foot}} = 15 \text{ N}$$

$$m_1 = 52 \text{ kg}$$

$$m_2 = 2.3 \text{ kg}$$

ryan.norris@nmt.edu

@theexpertta.com - tracking id: 3N77-65-84-4D-9154-29595. In accordance with Expert TA's Terms of Service, copying this information to any solutions sharing website is strictly forbidden. Doing so may result in termination of your Expert TA Account.

**Part (a)** Write an expression for the magnitude of the horizontal component of force that the ground exerts on the teenager's foot,  $F_{\text{ground}}$ .

**Expression** :

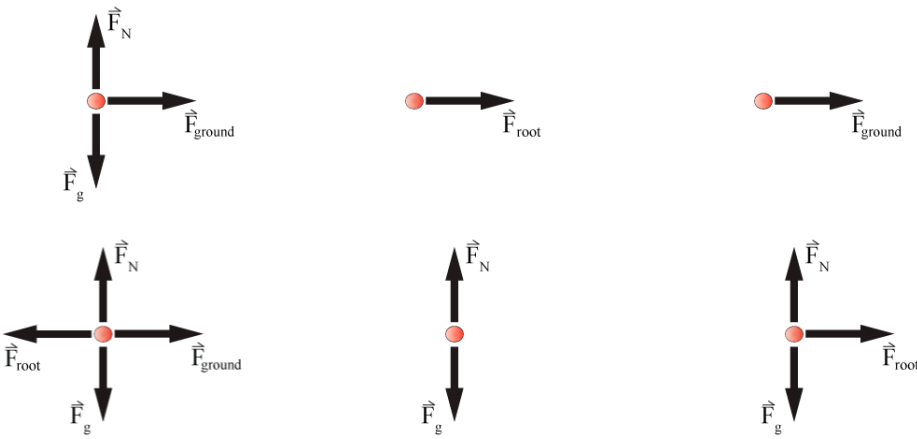
$$F_{\text{ground}} = \underline{\hspace{2cm}}$$

Select from the variables below to write your expression. Note that all variables may not be required.

$\alpha, \beta, \theta, a, b, d, F_{\text{foot}}, F_g, F_N, g, h, j, k, m, m_1, m_2, P, S, t$

**Part (b)** Choose the correct free-body diagram for the system made up of teenager and his skateboard.  $F_N$  is the normal force and  $F_g$  is the weight of the teenager and the skateboard.

**SchematicChoice** :



**Part (c)** Write an expression in terms of given quantities for the magnitude of the skateboard's acceleration,  $a$ , while the teenager is pushing backwards on the ground.

**Expression :**

$a =$  \_\_\_\_\_

Select from the variables below to write your expression. Note that all variables may not be required.

$\alpha, \beta, \theta, a, d, F_{\text{foot}}, g, h, j, k, m_1, m_2, P, t$

**Part (d)** What is the numerical value for the magnitude of the acceleration,  $a$ , in  $\text{m/s}^2$ ?

**Numeric :** A numeric value is expected and not an expression.

$a =$  \_\_\_\_\_

**Problem 9:** Two teams of nine members each engage in a tug of war. Each of the first team's members has an average mass of **69** kg and exerts an average force of **1352** N horizontally, on the ground. Each of the second team's members has an average mass of **74** kg and exerts an average force of **1362** N horizontally, on the ground.

ryan.norris@nmt.edu

@theexpertta.com - tracking id: 3N77-65-84-4D-9154-29595. In accordance with Expert TA's Terms of Service, copying this information to any solutions sharing website is strictly forbidden. Doing so may result in termination of your Expert TA Account.

**Part (a)** What is the magnitude of acceleration of the two teams in meters per square second?

**Numeric :** A numeric value is expected and not an expression.

$a =$  \_\_\_\_\_

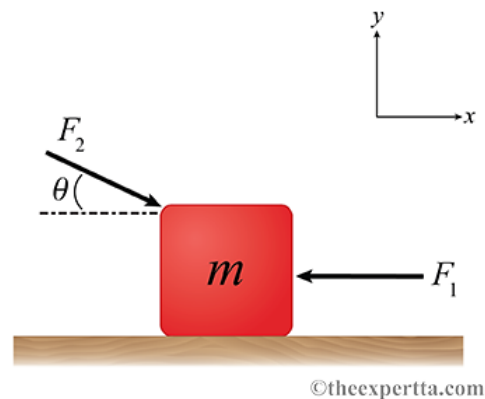
**Part (b)** What is the tension in the rope between the teams, in newtons?

**Numeric :** A numeric value is expected and not an expression.

$T =$  \_\_\_\_\_

**Problem 10:** A block with a mass of  $m = 44$  kg rests on a frictionless surface and is subject to two forces acting on it. The first force is directed in the negative  $x$ -direction with a magnitude of  $F_1 = 12$  N. The second has a magnitude of  $F_2 = 21$  N and acts on the body at an angle  $\theta = 15^\circ$  measured from horizontal, as shown.

ryan.norris@nmt.edu

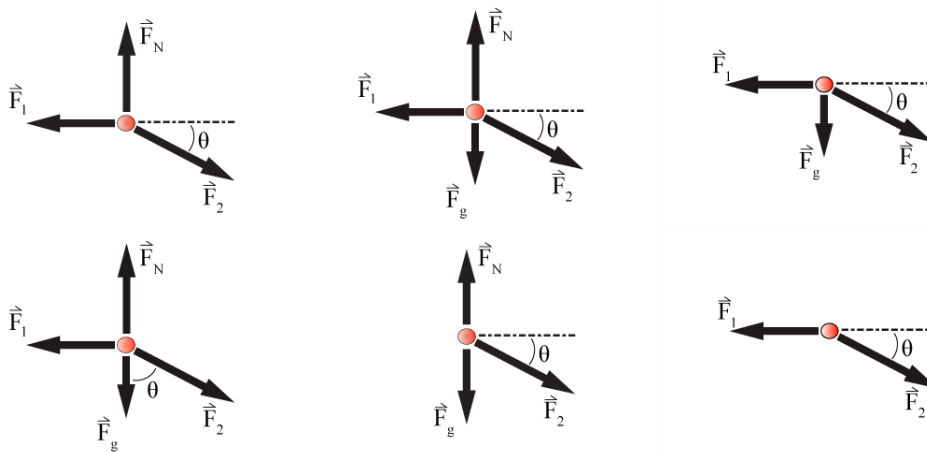


©theexpertta.com

@theexpertta.com - tracking id: 3N77-65-84-4D-9154-29595. In accordance with Expert TA's Terms of Service, copying this information to any solutions sharing website is strictly forbidden. Doing so may result in termination of your Expert TA Account.

**Part (a)** Please select the correct free body diagram from the choices below.

**SchematicChoice :**



**Part (b)** Write an expression for the component of net force,  $F_{\text{net},x}$ , in the  $x$ -direction, in terms of the variables given in the problem statement.

**Expression :**

$F_{\text{net},x} =$  \_\_\_\_\_

Select from the variables below to write your expression. Note that all variables may not be required.

$\cos(\phi)$ ,  $\cos(\theta)$ ,  $\sin(\phi)$ ,  $\sin(\theta)$ ,  $\tan(\phi)$ ,  $\tan(\theta)$ ,  $\alpha$ ,  $\beta$ ,  $\theta$ ,  $d$ ,  $F_1$ ,  $F_2$ ,  $g$ ,  $m$ ,  $t$

**Part (c)** Write an expression for the magnitude of the normal force,  $F_N$ , acting on the block, in terms of  $F_2$ ,  $g$ , and the other variables of the problem. Assume that the surface it rests on is rigid.

**Expression :**

$F_N =$  \_\_\_\_\_

Select from the variables below to write your expression. Note that all variables may not be required.

$\cos(\phi)$ ,  $\cos(\theta)$ ,  $\sin(\phi)$ ,  $\sin(\theta)$ ,  $\tan(\phi)$ ,  $\tan(\theta)$ ,  $\alpha$ ,  $\beta$ ,  $\theta$ ,  $d$ ,  $F_1$ ,  $F_2$ ,  $g$ ,  $m$ ,  $t$

**Part (d)** Find the block's acceleration in the  $x$ -direction,  $a_x$ , in meters per second squared.

**Numeric :** A numeric value is expected and not an expression.

$a_x =$  \_\_\_\_\_



### **Assignment / PHIL 1115: Intro to Philosophy**

Response 3: Reason or Evidence?

Two approaches to knowledge about the world outside ourselves are empiricism, as elaborated by John Locke (“An Essay Concerning Human Understanding”) and rationalism, as endorsed by Emmanuel Kant (“Critique of Pure Reason”).

Write a short essay outlining the difference between the two approaches, and explain which of these seems more right to you.

What do you think is the best way to know the truth: reason or evidence?

If you are having trouble deciding, you can ask yourself: if logic says one thing but the evidence says something else, which are you inclined to believe?

# BCIS 1110 – Fundamentals of Information Systems & Literacy

## Internet Research Project #1

Since you have almost completed a beginning information literacy course, you've been tasked with creating an Internet Research Project (IRP) on the types of Windows-based computer systems you would suggest for various types of computer users.

### Beginning Information:

Refer to your textbook, Visualizing Technology, and review the information from Chapters 1 through 6 to help you prepare for this project. You will also spend extensive time in research (both online and in-person).

### Task:

Research the type of Windows-based computer system that you would recommend to each of the following types of users:

- A sophomore college student working on a degree in Liberal Arts.
- A well-established, self-employed graphic designer in a graphic arts business.
- A family of five with one income--husband (retail store manager), wife (full-time mother), a 16-year-old boy (interested in music and sports), a 14-year-old boy (interested in making and watching movies), and a 12-year-old girl (interested in microbiology and drafting using 3D rendering).
- A senior (Over 60) who has not had much experience with technology but wants to stay in touch with family and friends as well as take advantage of how technology can make life easier.

Determine what type of Windows-based system (*that means NO Chromebooks or Macs*) each of the four types of users would need to have a useful computer system for **about three or maybe more years**.

Visit various, local computer-related businesses to see what is offered in the way of Windows-based computer systems. Use your learned knowledge from the textbook and this class to help you help these users find a computer system to meet their needs.

### Process:

**Phase One:** The emphasis here is on creating the "back-story" for your clients, gathering life/career information on each user, the computer system requirements, and what they probably can afford:

1. Research degrees, employment careers, average salaries, etc., to determine the basic requirements the users will most likely need in their systems with their financial constraints.
2. Research the type of computer system for each user. Think in-depth on what each person (or family) will need in their system to be useful for a minimum of three years, longer if possible.
3. For each user, you will need to include the following:
  - a. The System Unit - remember for this assignment you **MUST** recommend a Windows-based computer.

- b. Peripherals (basic input and output devices needed) required to make a functional computer.
- c. Secondary storage
- d. Network connectivity

**NOTE:** You can express your creativity in this section as you build a profile of your clients. For example, maybe the stay-at-home mom (SAHM) in the family of 5, is a former database administrator that continues to do consulting work for former clients. Or, the liberal arts student will transfer to a university after spending the next semester in a “study abroad” program. **Your recommendations will need to fit the characters’ lives and interests. Make them interesting.**

**Phase Two:** The emphasis here is on the actual discussion of the Windows-based systems you chose and why.

- 4. Choose the computer system with specifics on the system unit, input device(s), and output device(s), secondary storage, and network connectivity for each of the users.
- 5. Include in your project the following information:

*Discuss each user separately, start a new page for every user, and make sure each user’s information is identified by its own heading and include the following:*

- 1) Explain in detail why you chose the computer system you did regarding the following items for the users:
  - a. Processing speed
  - b. Memory size
  - c. Storage size
  - d. Video graphics
  - e. Audio
  - f. Etcetera
- 2) Explain in detail why you chose the input and output devices you did regarding the following items for the users:
  - a. Monitor
  - b. Keyboard
  - c. Mouse
  - d. Printer
  - e. Etcetera
- 3) Discuss your reasoning behind each system choice and why you believe that system is the right choice for the user. **You should be suggesting a totally different system set up for each user.** For example, maybe the senior does not really need a computer at all??? **Be thoughtful and creative in your recommendations.**
- 4) Discuss the total price for each computer system for the user and how that meets with the user’s budget.

When creating your project, be thorough and detailed as your grade will be based on the quality of the material you researched and presented for each user, as well as your how well you discussed all details. Complete Phase One and Phase Two for **each** of the four users. I do not want to see a project that groups all the clients together.

**Cite your source(s) for degrees and/or careers for your users, salary amounts, and every item you list (i.e., system unit, keyboard/mouse, monitor, etc.)**

When citing the sources, you must use the full citation for each – if you are using the Internet for sources, then you MUST use the entire URL address not just the URL for the homepage (I want to be able to type in/click on the URL go directly to the webpage for the system or peripheral you chose--I will **NOT** search for it).

**If you use magazine(s) and/or newspaper(s) information--it must be a current issue that is no more than two months old, and you must scan and upload the pages along with your project.**

**If using a local, non-Internet business, you must include the business's name and scan all information received for your citations (such as a price quote) and include in your upload.**

<b>Online/Digital Sources</b>	<a href="#">CNET</a> <a href="#">Kim Komando</a> <a href="#">Computer Shopper</a>
<b>Computer Businesses:</b>	Locally you would check:  Best Buy, Wal-Mart and Target as well as locally owned businesses in your area.
<b>Internet Resources:</b>	<a href="#">Tiger Direct</a> <a href="#">CDW</a> <a href="#">New Egg</a> <a href="#">Amazon</a> <a href="#">Sam's Club</a> <a href="#">Costco</a>

(These are just a few of the hundreds of sites available for computer systems, components, and peripherals.)

Use a reliable search engine to find additional information – you are not limited to the sources above.)

**\*\*if you are unfamiliar with a term listed in any of your sources, go to Webopedia, Wikipedia, or Netlingo for computer and Internet term definitions.**

**Findings: Put your Lab Project together:**

- You will need to produce an essay in report-form in Word. Make sure each user's information is separate (starts on a new page) and that it makes sense to me – as I read it, I don't want to say to myself "huh??" and wonder what you meant...take your time putting together your final project so that it is logical and complete (think of this like you would create your English research paper).
- You are only allowed to upload one Word file (plus additional files containing supporting citation scans for non-Internet information) ...***do not break down each user into a new file.***
- Format your report using **APA style** and take advantage of Word's reference and bibliography builder.
- Use footnotes to cite your items within your report and a **Works Cited page** with all sources listed (again, include complete URL addresses that directs a person to the specific item).
- Use APA header, ID Block and Title. The header must include your name and the name of your project and page numbers.
- Feel free to create charts or graphs, and insert graphics (properly cited, of course).

### **Conclusion:**

Complete your project and save it as **[your name] – IRP #1** and upload your file into the correct assignment link for "Internet Research Project #1" located in Canvas. For any scanned files needed for your citations, you must name them appropriately and upload them as well.

## **Assignment / SPAN 1110: Spanish I**

### Spanish 1110 Assignment

1. Students are introduced to new vocabulary for a lesson
2. Instructor has the students take turns pronouncing the words
3. Students choose 10 words and use them in Spanish sentences. Students read the sentences orally for class.
4. Students use critical thinking to create categories for the vocabulary list and then divide the words into the categories.
5. Students use technology (internet) to find the etymology of 10 words so they can learn Latin roots that give keys to the meanings of the words.
6. Students create simple similes with the words. Example: Un muchacho es como un perro pequeno.
7. Students do fill-in-the blank vocabulary exercises from the text in groups. They must demonstrate social responsibility by not making fun of others who may miss a question and by assisting others who may have difficulty with the questions. Also, equal time must be given to each member of the group by not allowing one student to answer all of the questions.
8. Knowledge of the vocabulary is assessed through oral Q and A and a simple quiz.

## MUSIC CONCERT REVIEW & CRITIQUE

In order to fulfill the assignment, you must attend an approved fine arts musical concert. The following are the structural elements to be contained within the paper, format of the paper and grading considerations.

### Structural Elements:

#### Get the Facts (0-15 Points):

- Name of the artist / ensemble
- Title of event / subject matter
- Date and location of event
- Size of ensemble and audience

#### Analyze (0-15 Points):

- Review the various aspects of the concert event and how they fit together aesthetically.
- Consider the ensemble and how it generally contributes to the individual selections within the concert.
- How does the ensemble influence the expression of the various individual compositions?
- Drawing upon your knowledge of music history, define how the musical selections fit into the time period in which they were created.
- Discuss the musical form of the individual works.

#### Evaluate (0-15 Points):

- Discuss the overall composition of the concert event.
- How was the musical material programmed? Did the material cohesively flow from one selection to the next?
- How were the program and ensemble musically effective?

#### Personal Opinion (0-15 Points):

Support your opinions utilizing terminology and understanding of music gleaned from information covered in this course.

- Provide your opinion and impression of the event.
- What were the specific aspects of the concert that you liked or disliked?
- What did you learn?
- Why did you select *this concert event* to attend?

#### Format (0-15):

Must be proofed at the "Writing Lab" prior to submission or they will receive a "0" grade.

- Papers will be at least 1 page in length, but not more than 2, with a minimum of two reputable sources recorded in an APA format (References will be appropriately cited throughout the paper).
- Papers will be single-spaced in a block format; double space between paragraphs; Garamond-12 font; and 1" margins on all sides.
- Attach a ticket stub and/or printed program.

#### Grading Considerations:

- Accuracy of the content and connectivity of the concert material to era and/or culture
- Support of your opinion of the event – Beyond "I like it"
- Readability of paper – No fragments; run on sentences; or unsupported pathways to nowhere
- Following defined format and site source quotes and concepts appropriately within the paper
- Composition, spelling, punctuation or other general errors

## Sample Assessment Questions for Math 1230

Could be given as a discussion prompt, homework question or on an exam

1. Determine the domain and range of the function.  $y = \cos^2 x - 2$
2. Find the exact value of the trigonometric function.  $\csc \frac{4\pi}{3}$
3. Multiply and simplify.  $\sec x (\cot x + \sin x)$
4. A car wheel has a 16-inch radius. Through what angle (to the nearest tenth of a degree) does the wheel turn when the car rolls forward 4 ft?
5. Evaluate exactly using a sum or difference identity- don't use a calculator.  $\cos \frac{11\pi}{12}$
6. Find the exact value by using a half-angle identity.  $\cos 75^\circ$
7. The transverse (vertical) displacement of a traveling wave on a stretched string is represented by the equation  $y = A \cos \frac{2\pi}{\lambda}(x - Vt)$ . Find the period, amplitude, and phase shift of this function, given that  $A = 2$ ,  $\lambda = 4$  in.,  $V = \frac{1}{2}$  in./sec, and  $t = 5$  sec.
8. Indicate the period, domain and range of the given function.  $y = \frac{1}{2} \tan \left( \frac{\pi}{5}(x - 2) \right)$
9. Given that  $\tan B = 7/24$  with  $B$  in quadrant III, find  $\sin 2B$ .
10. Evaluate exactly using known values.  $\sin (\arctan 2)$
11. Find all solutions of the equation. Let 'n' represent any integer.  $\sec x = 2$
12. Solve using an algebraic technique, finding all solutions in  $[0, 2\pi)$ . Check your work graphically.  
 $\sin x = 1 - 2 \sin^2 x$



13. Solve the triangle using the law of sines or the law of cosines. Side b is opposite angle B.

$$B = 49.1^\circ$$

$$C = 111.0^\circ$$

$$b = 42.52$$

14. Prove the identity.

$$(\cos \theta - \sin \theta)^2 + (\cos \theta + \sin \theta)^2 = 2$$

$$\frac{\csc x - \sec x}{\csc x + \sec x} = \frac{\cos 2x}{1 + \sin 2x}$$

15. The total sales in dollars of some small businesses fluctuates according to the equation

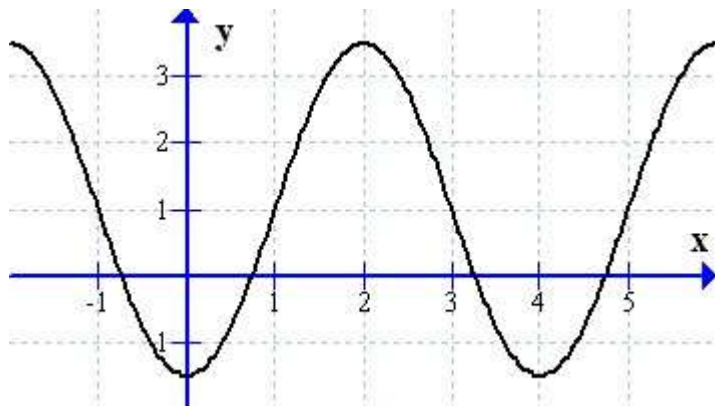
$$S = A + B \sin\left(\frac{\pi x}{6}\right),$$

where x is the time in months, with x = 1 corresponding to January, A = 7100, and

B = 3600. Determine the month with the greatest total sales and give the sales in that month.

16. A guy wire to a tower makes a  $69^\circ$  angle with level ground. At a point 36 ft farther from the tower than the wire but on the same side of the base as the wire, the angle of elevation to the top of the pole is  $37^\circ$ . Find the wire length (to the nearest foot).

17. Determine a sine function in the form of  $A \sin[ B ( x - C ) ] + D$  for the graph below. Show calculations to determine A, B, C, and D.



18. Find the magnitude  $\|\mathbf{w}\|$  of the vector  $\mathbf{w} = \mathbf{u} + \mathbf{v}$ .

$$\mathbf{u} = -4\mathbf{i} + 3\mathbf{j} \quad \mathbf{v} = 3\mathbf{i} - 5\mathbf{j}$$

19. Determine the angle between the following vectors.

$$u = -2i + 3j, \quad w = -2i - j$$

20. Find the indicated roots. All three cube roots of  $8i$

21. Find the product of  $z_1 z_2$  Write the answer in standard form  $a + bi$ .

$$z_1 = 6\left(\cos \frac{3\pi}{2} + i \sin \frac{3\pi}{2}\right) \text{ and } z_2 = 12\left(\cos \frac{5\pi}{6} + i \sin \frac{5\pi}{6}\right)$$

22. A pilot wants to fly on a bearing of  $63.6^\circ$ . By flying due east, he finds that a 54-mph wind, blowing from the south, puts him on course. Find the airspeed of the plane.

23. The voltage  $E$  in an electrical circuit is given by  $E = 2.9 \cos 110\pi t$ , where  $t$  is time measured in seconds. Find the frequency of the function (that is, find the number of cycles or periods completed in one second).

24. Two forces of 37 N and 42 N (newtons) act on an object at right angles. Find the magnitude of the resultant force.

25. Tiger Woods tees off on a straight 390 yard par 4 and slices his drive to the right. The drive goes 270 yards from the tee. Using a 7-iron on her second shot, he hits the ball 180 yards and it lands inches from the hole. How many degrees (to the nearest degree) to the right of the line from the tee to the hole did he slice his drive?

## Never Tired of Trigonometry

**Directions:** This project requires you to type your solutions up neatly. You may interject interesting “Clip Art” or any other items which you feel enhance your overall presentation. When finished, I hope you have learned some new items while exploring some old items in a non-routine way. Enjoy!

1. Make sure you type your answers. .
2. Be accurate and answer all questions completely.
3. Interject fun clip art and diagrams if you wish. Also, if you work in a profession related to these topics gives us some added info!

Read the accompanying article on tire specifications. Once done, begin to explore aspects of angular velocity/and linear velocity and how tire sizes affect them.

The following is the standard tires for three American automobiles: *Source – [www.tirerack.com](http://www.tirerack.com).*

Car Type	Tire Type	Tire Diameter-inches
Ford Taurus	215/60-16	26.16
Chevy Camaro	235/55-16	26.18
Dodge Dakota	255/55-17	28.04

#1. Find the speed of each car in mph when the wheels are turning at 800 rpm.

#2. Compared to the Dodge Dakota, how many more revolutions must the tires of the Ford Taurus make in order to travel one mile?

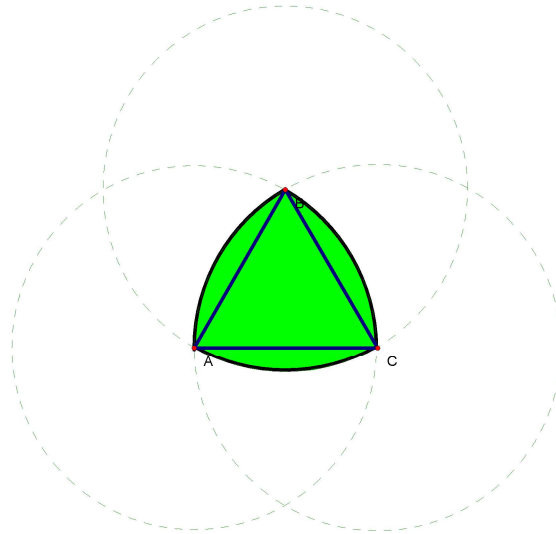
#3. It is unwise, and in some cases illegal 🚫, to equip a vehicle with wheels of a larger diameter than those for which it was designed. Suppose we put some 28 inch diameter tires on the Ford Taurus. If the wheels are turning the same 800 rpm how is the speed of the car affected? How would this affect the odometer? <http://www.net-comber.com/tirecalc.html>.

#4. "Formula One Cars can reach 225 mph." So what speeds do formula one race cars usually race at? There is a large span in speeds but a ball park number that you would be able to use is 300 kph - 190 mph - 85 m/s. WE WILL USE 190 mph.

Suppose our formula one car is going 190 mph. If the tires have size 215/45 R18 how many revolutions do the tires make in one second? (Note: You'll need to determine the sidewall height in inches and then use the rim diameter of 18" to determine the tire's actual radius).

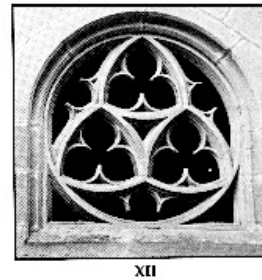
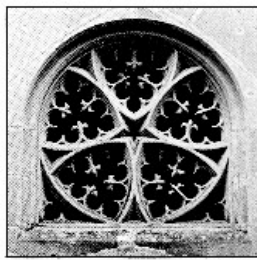
## Reuleaux Triangle

One interesting figure is called a Reuleaux Triangle. It is formed by using the vertices of an equilateral triangle as the centers of three circles. The intersections of the various circles form the curved looking triangular shape shown below.

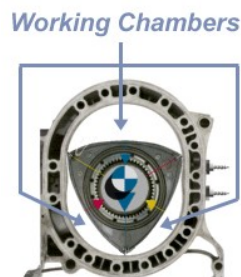


This figure appears throughout history in the windows of many Gothic Cathedrals (examples: Wells Cathedral, England & the Reims Cathedral, France).

See: <http://www.maths.adelaide.edu.au/people/pscott/place/pm13/pm13.html>



Besides architecture, the Rotary Engine (Wankel Engine) may have been inspired by the Reuleaux triangle.



There are other examples but that is for you to find in the problem set. Here are your tasks.

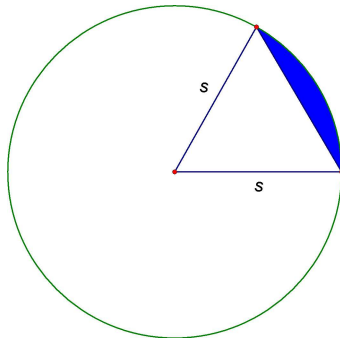
#1. Use algebra (and specifically the Pythagorean Theorem) to show that the area of an equilateral triangle of side length,  $s$ , is given by:

$$A_{\text{equilateral\_triangle}}(s) = \frac{s^2 \sqrt{3}}{4}$$

Note: the letter,  $s$ , is not the arc length but the side length of the triangle!

#2. Use your result from #1 and what we have learned about sector area of circles to show that the area of the shaded part (called a segment) is given by:

$$A_{\text{segment}}(s) = s^2 \left( \frac{2\pi - 3\sqrt{3}}{12} \right)$$



#3. Now determine a formula to determine the total area of the Reuleaux Triangle as shown in the introduction of a given side length,  $s$ . Leave your answer in terms of  $\pi$  and any radicals.

#4. Suppose we construct a window in the shape of a Reuleaux Triangle where the equilateral triangle has side length 2 feet. What is the area of the glass?

#5. Is it possible to drill a square hole? Find a website that discusses this possibility and mentions the Reuleaux Triangle. Copy off the source and add any other interesting examples you find.

### Trig project on mathematics of music (very basic)

Analyze the sound waves of  $C_4$  (middle C),  $E_4$ ,  $G_4$  and  $C_5$  (octave above middle C)

- find sine waves in the form  $A\sin[B(t - C)] + D$  that describe the waveforms of the 4 sound waves.

Show all your work for each equation

Write the equation in Desmos or some other grapher to compare your waveform with the original. Do a side-by-side comparison.

Find the corresponding frequencies of each sound wave

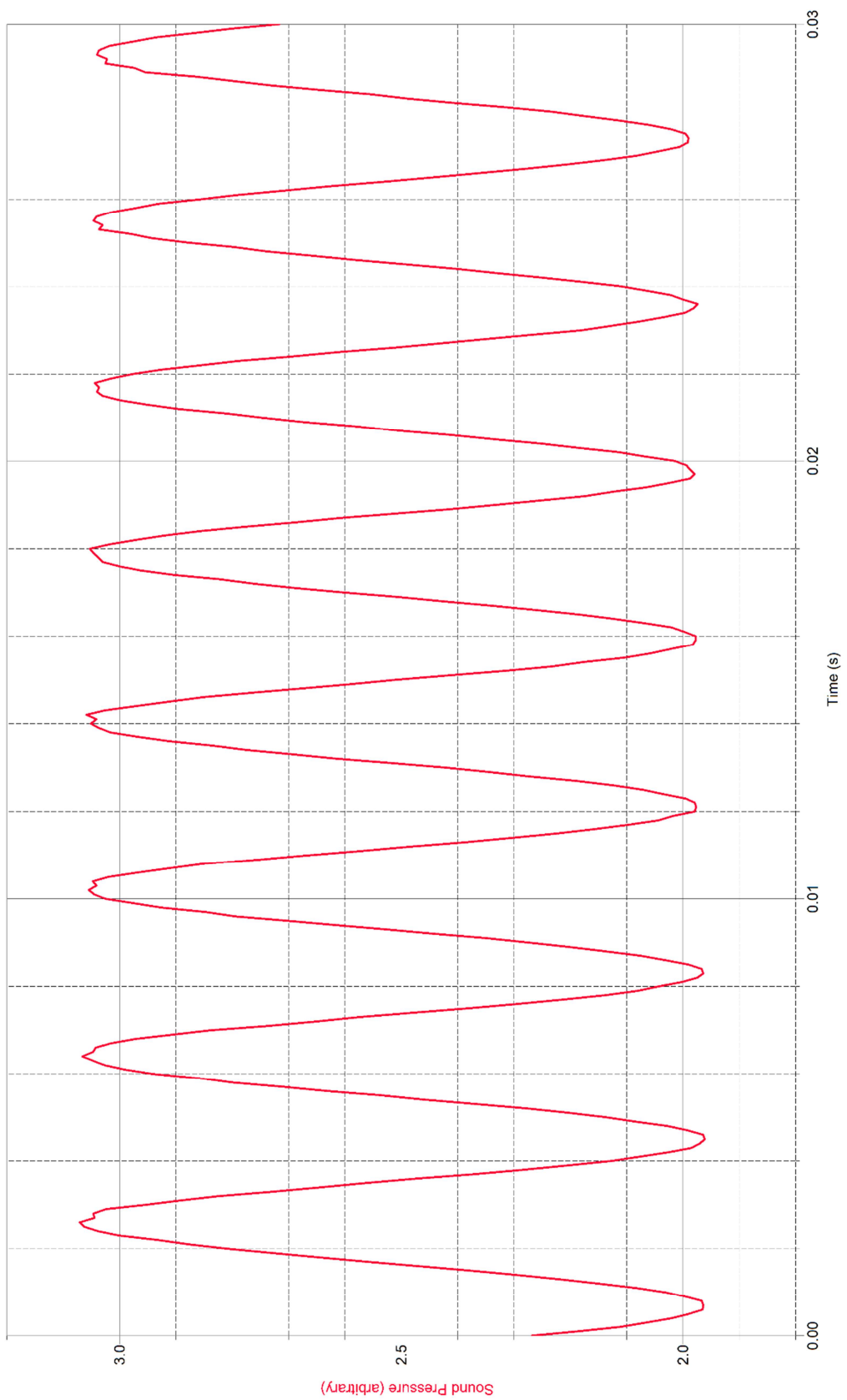
Make a table like the following:

Note	Frequency	Ratio to $C_4$	Simple whole number ratio
$C_4$		1	1
$E_4$			
$G_4$			
$C_5$			

What are the simplest whole number ratios of  $E_4$ ,  $G_4$  and  $C_5$  to  $C_4$  ( example: ratio = 1.32; smallest nearest whole ratio =  $4/3$ )

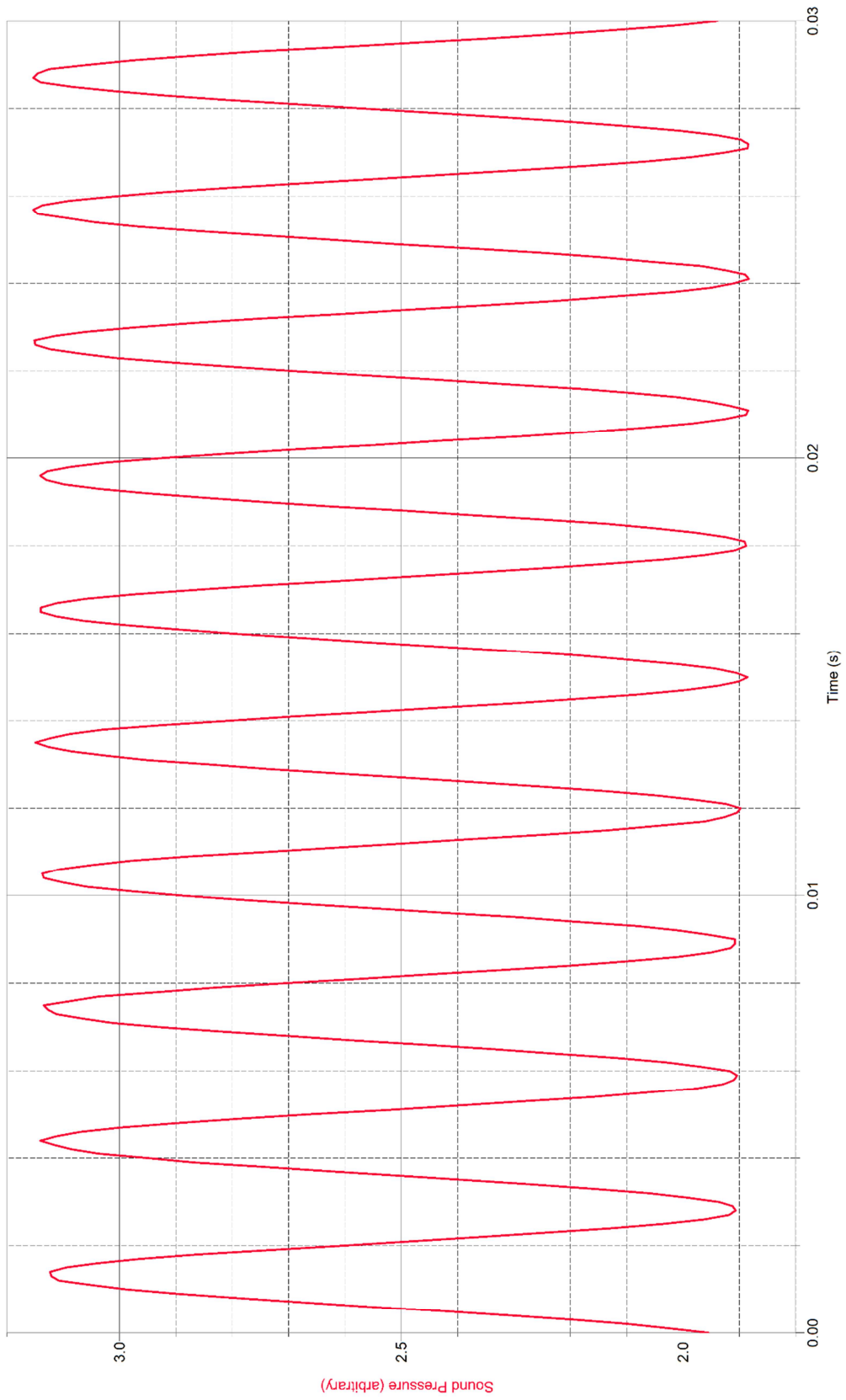
The notes  $E_4$  and  $C_4$  represent blend nicely when sounded together. The same is true for  $G_4$  and  $C_4$  and for  $C_5$  and  $C_4$  – what are these musical intervals called?

Write up your results and describe how they are related to the major diatonic musical scale.



Middle C

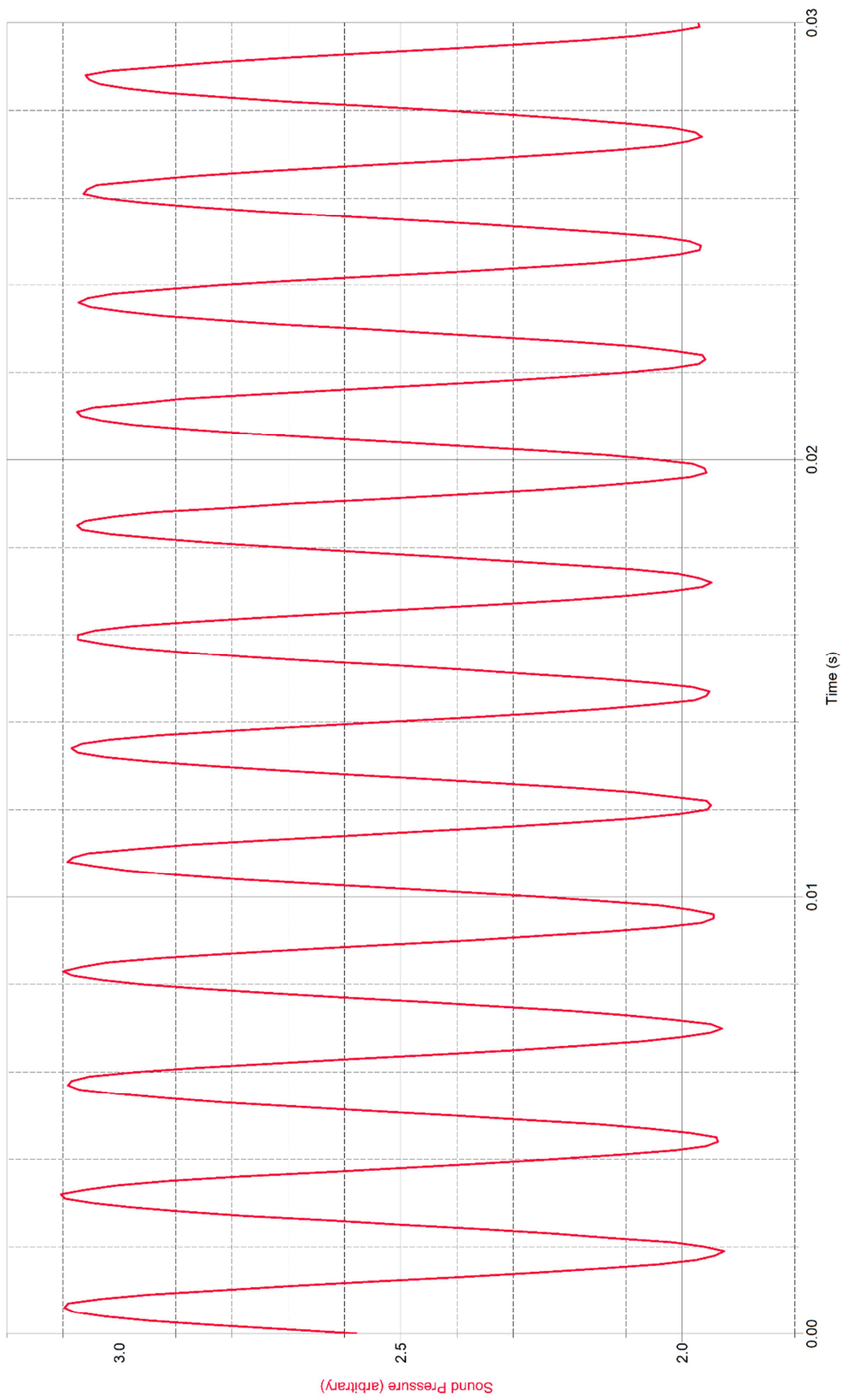
middle C



E above

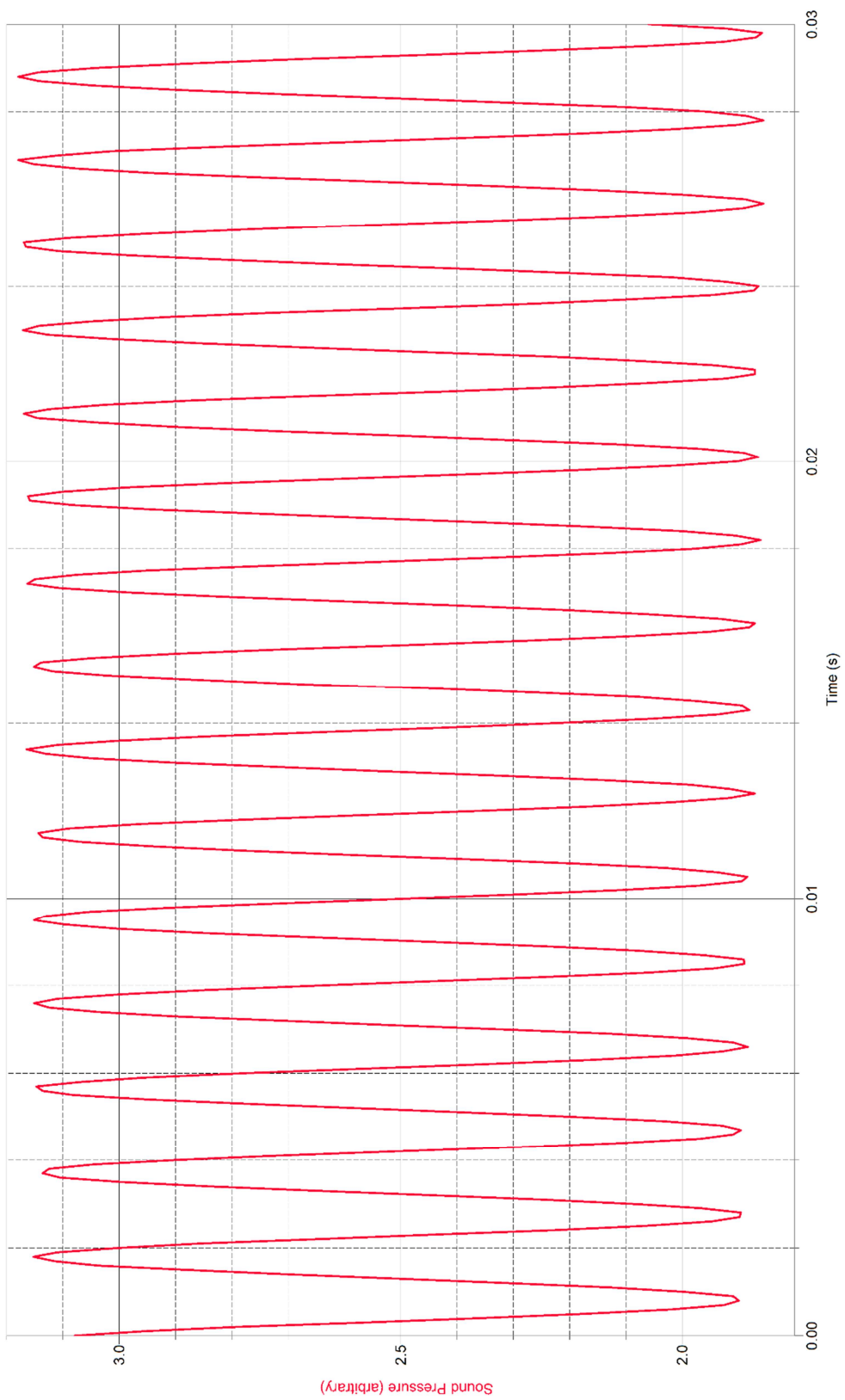


middle C



G above

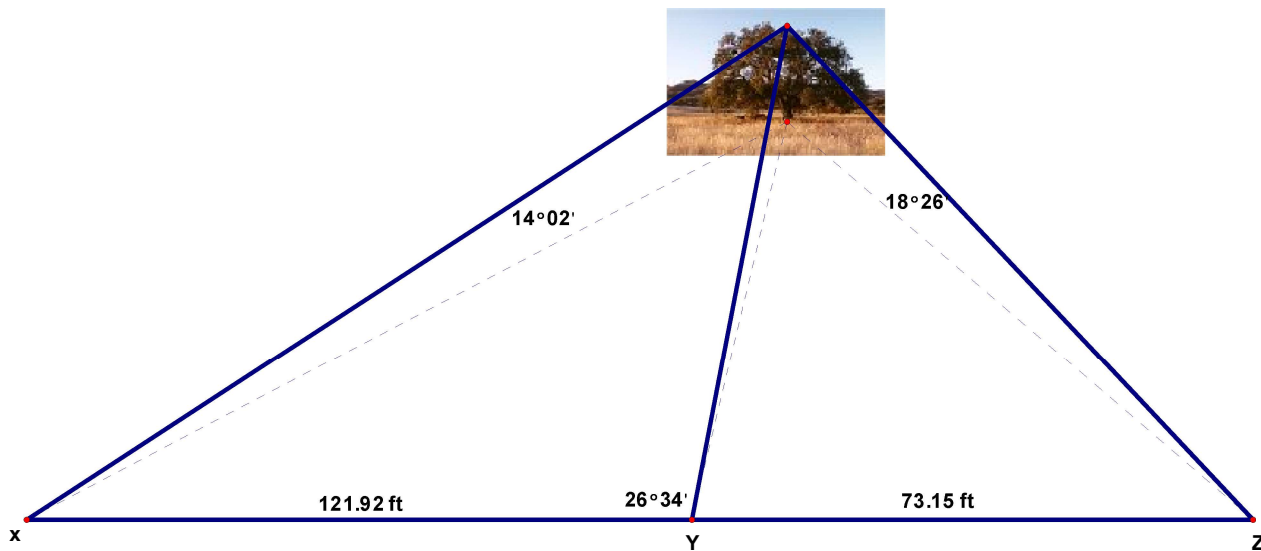
C above middle C



## The Classic Indirect Measurement Problem

### *Challenge Problem*

Show all work. Write it up neatly! You will obtain several equations and use the tangent ratio to help you. Good Luck!



Suppose you are walking on a *straight road* and observe a tree on a flat plain in the distance. Having your trusty sextant with you, you take an angle of inclination from a level of 5 ft to the top of the tree at three points, X, Y, and Z. They are 14 degrees 2 minutes, 26 degrees 34 minutes, and 18 degrees 26 minutes respectively. The distance traveled between the points X, Y, and Z are shown above.

**Question: How tall is the tree?**

## SPAN 215: Intermediate Spanish I

### New Mexico Institute of Mining and Technology

#### Supporting Document for New Mexico General Education Course Certification Form

March 19, 2021

**Proyecto final: A research presentation on Hispanic everyday life and culture.** You will select a topic related to the textbook chapters, and choose a specific country in Latin America (Spain and Equatorial Guinea are also possibilities). You will then develop a research presentation that combines written text, extensive visual materials, and audiovisual technology. The final product will be a video file in which you present your material, using Zoom or other recording software. The principal objective of the presentation is to *inform* and *entertain*. Your presentation should formulate a clear response to your research topic, it should educate your classmates on the topic you have chosen, and it should entertain and hold the interest of your audience.

#### Procedimiento básico:

1. **La propuesta.** You will submit an initial proposal for your presentation as part of your weekly homework assignment on **miércoles, 3 noviembre**. Your proposal must formulate a general research question and explain why this question is of interest to you. You also must choose a specific country to focus on. I'll give you feedback by **viernes, 5 noviembre**.
2. **El esbozo/la bibliografía.** In your weekly homework assignment due on **miércoles, 10 noviembre**, you will provide a basic outline of your presentation. Your outline will include: a) a clear, informative thesis/topic statement that relates to your research question; b) 5-7 main points that will make up the body of your presentation, with 2-3 sub-points for each of your main points; and c) a short bibliography of sources you plan to use for your presentation.
3. **La presentación.** You will create a presentation using either Google Slides or PowerPoint. Your presentation should incorporate extensive visual materials and concise textual information. See the rubric below for more details on how your presentation will be graded. You will then record your presentation using audiovisual software such as Zoom. The basic time requirement is *at least eight minutes*. See the rubric below for more details on how your recording will be graded.
4. **La entrega.** You will save your recorded presentation and share it via Google Drive, along with a copy of the presentation in Google Slides or PowerPoint. **Fecha límite: 15 diciembre a las 11:59 PM.**

#### Temas posibles:

1. **La diversidad humana de América Latina.** Elige un país de América Latina y formula una pregunta de investigación relacionada con la población nacional y la diversidad humana de ese país. Tu pregunta puede investigar una de estas sub-opciones: a) la

diversidad étnica/racial, o la cultura de uno de los grupos étnicos prominentes del país; b) un tema relacionado con el género o la sexualidad, como la vida y cultura LGBTQ del país; u otro tema relacionado con la diversidad humana en América Latina.

2. **Los deportes y pasatiempos de América Latina.** En Capítulo 2, estudiamos la cultura deportiva de América Latina y las diferentes actividades que las personas hacen en su tiempo libre. Elige un país de América Latina y formula una pregunta de investigación acerca de los deportes o pasatiempos de ese país. Puedes investigar deportes tradicionales (como el fútbol) o pasatiempos contemporáneos (como la cultura de los videojuegos en América Latina).
3. **Las celebraciones del mundo latino.** En Capítulo 4, estudiamos algunas de las celebraciones más importantes del mundo latino. Elige un país de América Latina y una celebración que quieres estudiar, y formula una pregunta de investigación acerca de la significancia cultural de esa celebración. Puede ser una celebración famosa, como el Día de Muertos, o una celebración local y menos conocido, como una de las celebraciones asociadas con la Iglesia católica en algún país de América Latina.
4. **Los viajes y el patrimonio natural de América Latina.** En Capítulo 5, estudiamos el turismo, los viajes, y la sostenibilidad ecológica. Elige un país y un lugar natural/turístico, y formula una pregunta de investigación acerca del turismo y sus efectos en la economía y el medio ambiente. Puede ser una playa famosa, unas ruinas precolombinas, un parque nacional, u otro aspecto del patrimonio natural/cultural de América Latina.

**Eastern New Mexico University-Roswell**  
**BUSA 1110**  
**Assignment**

*Read the directions for this assignment carefully. Write a two-page, double spaced paper, answering the eight questions posed in this document. Use a 12-point, Arial font, and one-inch margins on all four sides (top, right, left, bottom). Ask the instructor about anything you do not understand.*

The Dow Jones Industrial Average (DJIA) was created in 1896 by Charles Dow and originally consisted of 12 companies: American Cotton Oil, American Sugar, American Tobacco, Chicago Gas, Distilling & Cattle Feeding, General Electric, Laclede Gas, National Lead, North American, Tennessee Coal and Iron, U.S. Leather, and U.S. Rubber. Notice the heavy emphasis on commodities, agriculture, and utilities, which defined the economy of the late 1800s. You may also notice the nationalistic nature of the company names. Prior to globalization, a name that included “American” or “U.S.” would have seemed expansive, while in today’s economy it can seem limiting.

1. Access a sampling from a recent newspaper that publishes the current list of Dow Jones Industrials.
2. Comment on the nature of these businesses and the industries they represent.
3. Identify the changes you see in prominent companies.
4. Does it make sense to invest in socially responsible companies? Detail the reasons behind your thinking.

Consider the Vice Fund, an investment vehicle introduced in 2002 by investment manager Dan Ahrens. The Vice Fund focuses on four sectors: Gambling, Military, Alcohol, and Tobacco. According to Ahrens, the Vice Fund stocks increased 53 percent in the five years prior to 2002, while the S&P 500 increased 12 percent, and the Domini 400 Social Index (an index of 400 socially responsible companies) increased just 5 percent.

5. Does vice pay? Share your thoughts.
6. Consider this further. How do you as an investor feel about these products or services, their uses, and their benefits and hindrances to society?

Beyond the nature of these “vice” industries and their related products and services, consider ethical versus unethical business practices, as observed in any business or industry. While unethical behavior can yield short-term benefits, it can undermine long-term investment value. (Enron and WorldCom both offered amazing returns before they imploded due to ethics abuses.)

7. Brainstorm a list of the pros and cons of socially responsible investing
8. Revisit whether or not you would choose to invest in socially responsible companies.

## Assignment / PHIL 2110: Introduction to Ethics

### ASK A STOIC MASTER

You have been asked to fill in for the regular newspaper columnist, Marcus Aurelius Epictetus Jones, who answers letters from people seeking advice. Pick one letter and answer it. But remember: You must answer it ***as a Stoic philosopher***.

Your six letters this week:

...

#2: Dear Stoic Master: I am the world's most passionate Kenny Chesney fan, and I am jealous of my sister. She is much prettier than I am, and she has a beautiful singing voice. I, on the other hand, have protruding teeth, a unibrow, beady eyes, a very large chin, and a voice that sounds like an alley cat with laryngitis. We both went on an audition to be extras in a Kenny Chesney music video. She got selected, and I didn't. Now I am so angry and jealous that I can't sleep, and any time Kenny Chesney comes on the radio I start crying. Should I beat up my sister? Should I beat up Kenny Chesney? What *should* I do?

...

#6 Dear Stoic Master: I hate going to Wal Mart. I just hate it. I hate the crowds and having to park too far away and having to walk to the store in the blistering heat and coming out and finding my car has dents in it. I hate going to the store to look for something and finding that they are out of that item or no longer carry that item. I hate Wal Mart so much that if I could, I would never go back. Unfortunately, I can't avoid going to Wal Mart because I work there. What should I do?

(There are 4 other similar letters)

You are a lab assistant for the Chemistry Department and you are need to prepare 1500-mL of a buffer with pH = 3.5 Assume you have access to all of the various glassware, lab equipment and distilled water needed for your task.

Develop a protocol for preparing the buffer from what is available in the stock room.

Your protocol MUST include the following information:

- Explanation of which salt and acid selected for preparation of buffer
- Calculations to support your selections (show your work!)
- Name of lab equipment
- Calculations to show amount of salt required (show your work!)
- Calculations to show volume of acid required (show your work!)
- Method of preparation
- Proper label information

**Available Chemicals**

Sodium fluoride, NaF

Sodium monohydrogen phosphate, NaHPO<sub>4</sub>

Sodium acetate, CH<sub>3</sub>COONa

Sodium dihydrogen phosphate, Na<sub>2</sub>HPO<sub>4</sub>

Calcium propionate, Ca(HC<sub>3</sub>H<sub>5</sub>O<sub>2</sub>)<sub>2</sub>

1.0 M acetic acid, CH<sub>3</sub>COOH

$$K_a = 1.8 \times 10^{-8}$$

1.0 M hydrofluoric acid, HF

$$K_a = 7.2 \times 10^{-4}$$

1.0 M propionic acid, HC<sub>3</sub>H<sub>5</sub>O<sub>2</sub>

$$K_a = 1.3 \times 10^{-5}$$

1.0 M phosphoric acid, H<sub>3</sub>PO<sub>4</sub>

$$K_{a1} = 7.5 \times 10^{-3}$$

$$K_{a2} = 6.2 \times 10^{-8}$$

$$K_{a3} = 4.8 \times 10^{-13}$$



Some people say that Henrietta Lacks has the honor of being immortal. Lacks died in 1951, after a battle with cancer. A few months before her death, doctors at John Hopkins Hospital removed a tumor from her body. These cells have continued to propagate and are used extensively in cancer research. Much progress and controversy stem from the use of HeLa cells.

In 2000, Rebecca Skloot published “Henrietta’s Dance” in the Johns Hopkins (affiliated with Johns Hopkins University). The article outlines Lacks’ life and her journey post 1951.

**Your assignment is:**

1. read the article “Henrietta’s Dance” by Rebecca Skloot (John Hopkins Magazine – April 2000) [www.jhu.edu/~jhumag/0400web/01.html](http://www.jhu.edu/~jhumag/0400web/01.html)
2. Reflect on your reaction to her story.
3. Consider the perspective of the Lacks Family: In your own words, form an argument to support the Lacks Family opposition to the use of HeLa Cells in biomedical research.

In your argument, specifically address:

- a. What issues need to be considered?
  - b. Why is it important to address these issues?
  - c. How can the issues be overcome?
  - d. How can the circumstances surrounding the harvesting of HeLa cells impact you?
4. Consider the perspective of a Biological Researcher: In your own words form an argument to support the use of HeLa cells in biomedical research.

In your argument, specifically address:

- a. What issues need to be considered?
- b. Why is it important to address these issues?
- c. Are there alternative ways to conduct research without HeLa cells?
- d. What measures exist to garner permission for tissue donation?

**GUIDELINES**

1. Prepare your responses in a MS Word document, upload to Blackboard in Wk4 folder.
2. Double space entire document.
3. Acceptable fonts: Times New Roman, Arial or Courier
4. Acceptable font size: 10, 11 or 12
5. Response length to Question 3 is 250 word minimum, 800 word maximum.
6. Response length to Question 4 is 250 word minimum, 800 word maximum.
7. Response should be free of misspellings and grammatical errors.

## MUSC 1415 - MUSIC CONCERT REVIEW & CRITIQUE

In order to fulfill the assignment, you must attend an approved fine arts musical concert. The following are the structural elements to be contained within the paper, format of the paper and grading considerations.

### Structural Elements:

#### Get the Facts (0-15 Points):

- Name of the artist / ensemble
- Title of event / subject matter
- Date and location of event
- Size of ensemble and audience

#### Analyze (0-15 Points):

- Review the various aspects of the concert event and how they fit together aesthetically.
- Consider the ensemble and how it generally contributes to the individual selections within the concert.
- How does the ensemble influence the expression of the various individual compositions?
- Drawing upon your knowledge of music history, define how the musical selections fit into the time period in which they were created.
- Discuss the musical form of the individual works.

#### Evaluate (0-15 Points):

- Discuss the overall composition of the concert event.
- How was the musical material programmed? Did the material cohesively flow from one selection to the next?
- How were the program and ensemble musically effective?

#### Personal Opinion (0-15 Points):

Support your opinions utilizing terminology and understanding of music gleaned from information covered in this course.

- Provide your opinion and impression of the event.
- What were the specific aspects of the concert that you liked or disliked?
- What did you learn?
- Why did you select *this concert event* to attend?

#### Format (0-15):

Must be proofed at the "Writing Lab" prior to submission or they will receive a "0" grade.

- Papers will be at least 1 page in length, but not more than 2, with a minimum of two reputable sources recorded in an APA format (References will be appropriately cited throughout the paper).
- Papers will be single-spaced in a block format; double space between paragraphs; Garamond-12 font; and 1" margins on all sides.
- Attach a ticket stub and/or printed program.

#### Grading Considerations:

- Accuracy of the content and connectivity of the concert material to era and/or culture
- Support of your opinion of the event – Beyond "I like it"
- Readability of paper – No fragments; run on sentences; or unsupported pathways to nowhere
- Following defined format and site source quotes and concepts appropriately within the paper
- Composition, spelling, punctuation or other general errors



## **SOCI 1110 Major Paper**

<http://www.monash.edu.au/lls/llonline/writing/arts/sociology/2.xml>

See the above link for some excellent tutorials on writing in sociology. The information below is adapted from this website.

### **Using evidence**

---

When you study Sociology, you are dealing with things that are very familiar to you; things that constitute essentially your whole social world, like the media, families, relationships. The aim of Sociology, however, is to get you to try to observe this social world from the point of view of a social scientist - that is, to stand outside your world and examine it with fresh eyes; to see the ordinary as unfamiliar. Principally, you need to question the habits and attitudes that we all take for granted and to ask on what basis these are formed.

By trying to put aside our preconceived views, prejudices, and assumptions about what is "normal" or "natural", we can come to a greater understanding of why social relations and institutions might be as they are.

In thinking about sociological issues you will need to question your own assumptions and determine what evidence exists to support your views.

This evidence will take the form of:

- Sociological theory
- Empirical studies
- Concrete examples

In sociological essays it is imperative that you substantiate statements of fact, facts you may think "everyone knows". Many ideas or "facts" are actually assumptions or even myths that have often taken on the status of fact. Also be wary of using the grand generalization - much of what you experience is determined by your particular social and cultural as well as geographical location. Don't assume it is everyone's experience in the United States, or in the world!

### **Structuring an argument**

---

In your essays, two important concerns are:

- whether or not your essay actually answers the specific question that has been set
- whether or not the essay has a clear line of argument

This means you need to analyze the topic carefully and structure your essay to orient the reader back to the topic.

Essays can be sequenced in a number of ways, e.g. they may move from the general to the particular, rounding off to draw the discussion together in the latter part. They can also move

from the past to the present, or from one area of research to the next, and then moving to comparisons of the two, etc.

While you may know very well that you should have an argument, when you are dealing with complex themes in an academic essay, it is often difficult to make that argument stand out clearly, or sometimes, to even know what your argument is!

## **Analytic Papers**

Students will write 2 analytic essays on the reading assigned during the course (at least 2 full pages, double spaced, 12-point font, 1-in margins). In these essays, students should pick a specific claim in one assigned material since the last paper. The essay should use the Argument-Objection-Response (AOR) structure (see Handouts 1 and 3):

1. *Claim*: pick a claim made in the material *that you agree or disagree with*, state it succinctly, and identify where it appeared;
2. *Argument*: state why you agree/disagree with it (the more reasons, the better);
3. *Objection*: identify a strong objection to your argument; and
4. *Response*: reply to that objection. (repeat steps 2, 3, and 4)

Papers should also state the theoretical or social significance of the issue and argument. Include at least 2 objections and responses, and use as many AORs as needed to complete 2 full pages. References should be in APA format (see research guide); citations do not count toward minimum page requirement. The aim of this exercise is to facilitate charitable reading, clear reasoning, and ability to engage constructively with objections. The professor will grade the papers for *completeness*, *charity*, and *clarity* (see examples on Canvas).

## **Late Paper Policy:**

For all papers, a late penalty of 1% per day (out of the assignment's 100 total points) is incurred on submissions past the due date. For instance, a paper turned in 10 days late has a starting grade of 90%. For papers late by over 3 weeks, students are responsible for contacting the professor to arrange a plan for completion.

---

This exam contains 3 pages and 11 problems. Check to see if any page or problem is/are missing. Show all your work for optimum grades.

---

1. Consider the region bounded by  $y = x^2$  and  $y = 2x$ . **Set up** integrals to find the
  - (a) Area of the region
  - (b) Volume of the solid formed by rotating the region about the x-axis.
  - (c) Volume of the solid formed by rotating the region about the line  $x = -5$ .
2. Consider the curve given by  $f(x) = \sqrt{x}$ ,  $0 \leq x \leq 3$ . **Set up** an integral to find the length of this curve.
3. Sketch the graph of  $r = 3(1 - \cos \theta)$ ,  $0 \leq \theta \leq \pi$ . **Set up** an integral to find the area enclosed by this curve.

4. Evaluate the following integrals:

(a)  $\int \frac{1}{\sqrt{x^2 + 9}} dx$

(c)  $\int \frac{5x}{(x-1)(x+4)} dx$

(b)  $\int x \sin 3x dx$

(d)  $\int_0^4 \frac{2x}{(x-2)^2} dx$

5. Evaluate the following improper integral:

$$\int_{-1}^1 \frac{1}{x^2} dx.$$

6. (a) Does the series  $\sum_{k=1}^{\infty} \frac{3^k}{4^k}$  converge? If so, find the sum. If not, explain why.

(b) Does the sequence  $\left\{\frac{3^k}{4^k}\right\}$  converge? If so, find the limit. If not, explain why.

7. Do the following series converge or diverge? Identify any tests you use and show all the worked needed to apply them.

(a)  $\sum_{k=1}^{\infty} \frac{(2k)!}{3^k}$

(c)  $\sum_{k=1}^{\infty} \frac{3k - \sqrt{k}}{k^4 + 1}$

(b)  $\sum_{k=1}^{\infty} \sqrt[k]{k}$

(d)  $\sum_{k=1}^{\infty} \sin \frac{1}{k}$

8. Find the radius and interval of convergence of the power series

$$\sum_{k=1}^{\infty} \frac{4}{k 2^k} (x - 3)^k.$$

9. A tank contains 200 L of salt water with a concentration of 4 g/L. Salt water with a concentration of 3 g/L is being pumped into the tank at the rate of 8 L/min, and the tank is being emptied at the rate of 8 L/min. Assume the contents of the tank are being mixed thoroughly and continuously. Let  $S(t)$  be the amount of salt (measured in grams) in the tank at time  $t$  (measured in minutes).

(a) What is the amount of salt in the tank at time  $t = 0$ ?

(b) What is the rate at which salt enters the tank?

(c) What is the rate at which salt leaves the tank at time  $t$ ?

(d) What is  $\frac{dS}{dt}$ , the net rate of change of salt in the tank at time  $t$ ?

(e) Write an initial value problem relating  $S(t)$  and  $\frac{dS}{dt}$ . Solve the initial value problem.

10. Find the general solution to the following differential equation:

$$y' = 3x^2(y^2 + 4).$$



11. For the vectors  $\mathbf{u} = \langle \mathbf{1}, \mathbf{0}, -\mathbf{2} \rangle$  and  $\mathbf{v} = \langle \mathbf{0}, -\mathbf{3}, \mathbf{1} \rangle$ , find

(a)  $\mathbf{u} + \mathbf{3v}$

(b)  $\mathbf{v} \times \mathbf{u}$

(c) The cosine of the angle between  $\mathbf{u}$  and  $\mathbf{v}$

Current Score: 0/47 Due: Sun, Mar 7, 2021 11:59 PM MST

Question	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	Total
Points	0/2	0/1	0/2	0/1	0/1	0/4	0/4	0/3	0/3	0/1	0/1	0/2	0/3	0/2	0/1	0/1	0/1	0/1	0/2	0/1	0/2	0/3	0/1	0/2	0/1	0/47

1. 0/2 points

SerCP11 1.3.P.002. [3752557]

(a) Suppose that the displacement of an object is related to time according to the expression  $x = Bt^2$ . What are the dimensions of  $B$ ?

☐  $\frac{\sqrt{L}}{T}$

☐  $L/T$

☐  $L/T^2$

☐  $T^2/L$

☐  $L \times T^2$

☐  $L^2/L$

(b) A displacement is related to time as  $x = A \sin(2\pi ft)$ , where  $A$  and  $f$  are constants. Find the dimensions of  $A$ . (*Hint: A trigonometric function appearing in an equation must be dimensionless.*)

☐  $L \times T$

☐  $L/T$

☐  $T$

☐  $L$

☐  $T/L$

Need Help?

Read It

Newton's law of universal gravitation is represented by

$$F = G \frac{Mm}{r^2}$$

where  $F$  is the gravitational force,  $M$  and  $m$  are masses, and  $r$  is a length. Force has the SI units  $\text{kg} \cdot \text{m}/\text{s}^2$ . What are the SI units of the proportionality constant  $G$ ?

- ☐  $\frac{\text{m}^3}{\text{kg} \cdot \text{s}^3}$
- ☐  $\frac{\text{m}^2}{\text{kg} \cdot \text{s}^2}$
- ☐  $\frac{\text{m}^3}{\text{kg} \cdot \text{s}^2}$
- ☐  $\frac{\text{m}^2}{\text{kg} \cdot \text{s}^3}$

Need Help?

Read It

Kinetic energy  $KE$  has dimensions  $\text{kg} \cdot \text{m}^2/\text{s}^2$ . It can be written in terms of the momentum  $p$  and mass  $m$  as

$$KE = \frac{p^2}{2m}$$

(a) Determine the proper units for momentum using dimensional analysis.

- ☐  $\text{kg} \cdot \text{m}/\text{s}^2$
- ☐  $\text{kg} \cdot \text{m}/\text{s}$
- ☐  $\text{kg} \cdot \text{m}^2/\text{s}$
- ☐  $\text{kg}^2 \cdot \text{m}/\text{s}$

(b) Force has the SI units  $\text{kg} \cdot \text{m}/\text{s}^2$ . Given the units of force, write a simple equation relating a constant force  $F$  exerted on an object, an interval of time  $t$  during which the force is applied, and the resulting momentum of the object,  $p$ . (Submit a file with a maximum size of 1 MB.)

Choose File No file chosen

Need Help?

Read It

4. 0/1 points

SerCP11 1.4.P.007. [3780490]

A rectangular airstrip measures 34.90 m by 250 m, with the width measured more accurately than the length. Find the area (in  $\text{m}^2$ ), taking into account significant figures.

HINT

4.0 ✓   $\text{m}^2$ 

Need Help?

Read It

Watch It

5. 0/1 points

SerCP11 1.4.P.008. [3775158]

Use the rules for significant figures to find the answer to the addition problem  $S = 23.4 + 16 + 13.17 + 8.403$ .

HINT

 $S =$  4.0 ✓ 

Need Help?

Read It

Watch It

6. 0/4 points

SerCP11 1.4.P.010. [3752316]

Use your calculator to determine  $(\sqrt{8})^3$  to three significant figures in two ways.

(a) Find  $\sqrt{8}$  to four significant figures; then cube this number and round to three significant figures.

4.0 ✓ 

(b) Find  $\sqrt{8}$  to three significant figures; then cube this number and round to three significant figures.

4.0 ✓ 

(c) Which answer is more accurate?

☐ a☐ b

Explain.

Need Help?

Read It

7. 0/4 points

SerCP11 1.4.P.011. [3752339]

How many significant figures are there in each of the following?

(a)  $60.0 \pm 0.6$

(b)  $3.3230 \times 10^9$

(c)  $2.38 \times 10^{-6}$

(d)  $0.0034$

Need Help?

Read It

8. 0/3 points

SerCP11 1.4.P.012. [3752428]

The speed of light is now defined to be  $c = 2.99792458 \times 10^8$  m/s.

(a) Express the speed of light to three significant figures.

4.0 ✓

 m/s

(b) Express the speed of light to five significant figures.

4.0 ✓

 m/s

(c) Express the speed of light to seven significant figures.

4.0 ✓

 m/s

Need Help?

Read It

9. 0/3 points

SerCP11 1.4.P.016. [3752147]

Carry out the following arithmetic operations. (Enter your answers to the correct number of significant figures.)

(a) the sum of the measured values  $545$ ,  $33.4$ ,  $0.90$ , and  $9.0$

4.0 ✓

(b) the product  $0.0055 \times 410.8$

4.0 ✓

(c) the product  $16.70 \times \pi$

4.0 ✓

Need Help?

Read It

10. 0/1 points

SerCP11 1.5.P.018. [3775172]

A house is advertised as having 1440 square feet under roof. What is the area of this house in square meters?

HINT

m<sup>2</sup>

Need Help?

Read It

Watch It

11. 0/1 points

SerCP11 1.5.P.020. [3752427]

A small turtle moves at a speed of 488 furlongs per fortnight. Find the speed of the turtle in centimeters per second. Note that 1 furlong = 220 yards and 1 fortnight = 14 days.

cm/s

Need Help?

Read It

12. 0/2 points

SerCP11 1.5.P.023. [3752214]

A car is traveling at a speed of 35.8 m/s on an interstate highway where the speed limit is 70.0 mi/h. Is the driver exceeding the speed limit?

☐ Yes

☐ No

Justify your answer.

Need Help?

Read It

13. 0/3 points

SerCP11 1.5.P.025. [3752220]

The diameter of a sphere is measured to be 4.40 in.

(a) Find the radius of the sphere in centimeters.

cm

(b) Find the surface area of the sphere in square centimeters.

cm<sup>2</sup>

(c) Find the volume of the sphere in cubic centimeters.

cm<sup>3</sup>

Need Help?

Read It

14. 0/2 points

SerCP11 1.5.P.028.MI. [3752526]

A house is 57.0 ft long and 30 ft wide, and has 8.0-ft-high ceilings. What is the volume of the interior of the house in cubic meters and cubic centimeters?

 m<sup>3</sup> cm<sup>3</sup>

Need Help?

Read It

Master It

15. 0/1 points

SerCP11 1.5.P.031. [3752378]

A quart container of ice cream is to be made in the form of a cube. What should be the length of a side, in centimeters? (Use the conversion 1 gallon = 3.786 liter.)

 cm

Need Help?

Read It

16. 0/1 points

SerCP11 1.6.P.033. [3752280]

Estimate the number of breaths taken by a human being during an average lifetime. (We estimate an average respiration rate of about 10 breaths per minute and a typical life span of 70 years.)

- ☐ 10<sup>6</sup> breaths
- ☐ 10<sup>8</sup> breaths
- ☐ 10<sup>10</sup> breaths
- ☐ 10<sup>12</sup> breaths
- ☐ 10<sup>14</sup> breaths

Need Help?

Read It

Watch It

17. 0/1 points

SerCP11 1.6.P.035. [3780500]

The habitable part of Earth's surface has been estimated to cover 60 trillion square meters. Estimate the percent of this area occupied by humans if Earth's current population stood packed together as people do in a crowded elevator.

HINT

- ☐ 10<sup>-3</sup>%
- ☐ 10<sup>-1</sup>%
- ☐ 10%
- ☐ 50%

Need Help?

Read It

Watch It

18. 0/1 points

SerCP11 1.6.P.037. [3752188]

An automobile tire is rated to last for 35,000 miles. Estimate the number of revolutions the tire will make in its lifetime.

- ☐  $10^{10}$  revolutions
- ☐  $10^7$  revolutions
- ☐  $10^6$  revolutions
- ☐  $10^3$  revolutions
- ☐  $10^{12}$  revolutions

Need Help?

Read It

19. 0/2 points

SerCP11 1.7.P.039.MI. [4499964]

A point is located in a polar coordinate system by the coordinates  $r = 2.4$  m and  $\theta = 24^\circ$ . Find the  $x$ - and  $y$ -coordinates of this point, assuming that the two coordinate systems have the same origin.

 $x =$   m $y =$   m

Need Help?

Read It

Master It

20. 0/1 points

SerCP11 1.7.P.040. [3752170]

A certain corner of a room is selected as the origin of a rectangular coordinate system. If a fly is crawling on an adjacent wall at a point having coordinates  $(2.4, 2.0)$ , where the units are meters, what is the distance of the fly from the corner of the room?

 m

Need Help?

Read It

21. 0/2 points

SerCP11 1.7.P.041. [3752356]

A certain corner of a room is selected as the origin of a rectangular coordinate system. A fly is crawling on an adjacent wall at a point having coordinates  $(2.3, 1.1)$ , where the units are meters. Express the location of the fly in polar coordinates.

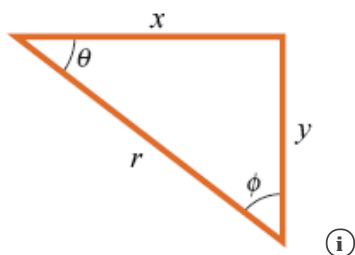
 $r =$   m $\theta =$    $^\circ$ 

Need Help?

Read It



For the triangle shown in the figure below what are each of the following? (Let  $y = 36.0$  m and  $r = 45.0$  m. Assume the triangle is a right triangle.)



(a) the length of the unknown side  $x$

 m

(b) the tangent of  $\theta$

(c) the sin of  $\phi$

Need Help?

Read It

Master It

A high fountain of water is located at the center of a circular pool as shown in the figure below. Not wishing to get his feet wet, a student walks around the pool and measures its circumference to be  $10.0$  m. Next, the student stands at the edge of the pool and uses a protractor to gauge the angle of elevation at the bottom of the fountain to be  $55.0^\circ$ . How high is the fountain?

 m

Need Help?

Read It

Vector  $\vec{A}$  has a magnitude of 8.00 units and makes an angle of  $45.0^\circ$  with the positive x-axis. Vector  $\vec{B}$  also has a magnitude of 8.00 units and is directed along the negative x-axis.

(a) Using graphical methods, find the vector sum  $\vec{A} + \vec{B}$ . (Submit a file with a maximum size of 1 MB.)

No file chosen

(b) Using graphical methods, find the vector difference  $\vec{A} - \vec{B}$ . (Submit a file with a maximum size of 1 MB.)

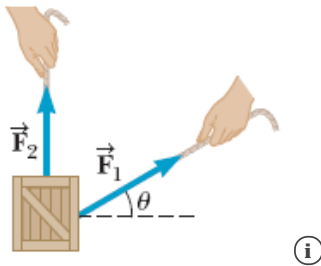
No file chosen

Need Help?

A force  $\vec{F}_1$  of magnitude 7.20 units acts on an object at the origin in a direction  $\theta = 45.0^\circ$  above the positive x-axis. (See the figure below.) A second force  $\vec{F}_2$  of magnitude 5.00 units acts on the object in the direction of the positive y-axis. Find graphically the magnitude and direction of the resultant force  $\vec{F}_1 + \vec{F}_2$ .

magnitude  units

direction   $^\circ$  counterclockwise from the +x-axis



Need Help?

#### Assignment Details

Name (AID): Chapter 1 Homework (15139855)

Submissions Allowed: 6

Category: Homework

Code:

Locked: Yes

Author: Cogdill, Cory ( [Cory.Cogdill@roswell.enmu.edu](mailto:Cory.Cogdill@roswell.enmu.edu) )

Last Saved: Jan 23, 2020 11:10 AM MST

Permission: Protected

Randomization: Different every time

Which graded: Question Part

#### Feedback Settings

Before due date

Question Score

Assignment Score

Publish Essay Scores

Question Part Score

Mark

Add Practice Button

Help/Hints

Response

Save Work

After due date

Question Score

Assignment Score

Publish Essay Scores

Key

Question Part Score

Solution

Mark

Help/Hints

Response

Name\_\_\_\_\_

**Directions:** Answer each question to the best of your ability, showing all of your work along the way. Even if you don't know the answer to the question, do as much as you can for partial credit. A correct answer with no work shown will receive no credit. Each question holds equal weight.

The augmented matrix is given for a system of equations. If the system is consistent, find the general solution. Otherwise state that there is no solution.

$$1) \begin{bmatrix} 1 & 4 & -2 & -3 & 1 \\ 0 & 0 & 1 & 4 & -4 \\ -1 & -4 & -1 & -9 & 11 \end{bmatrix}$$

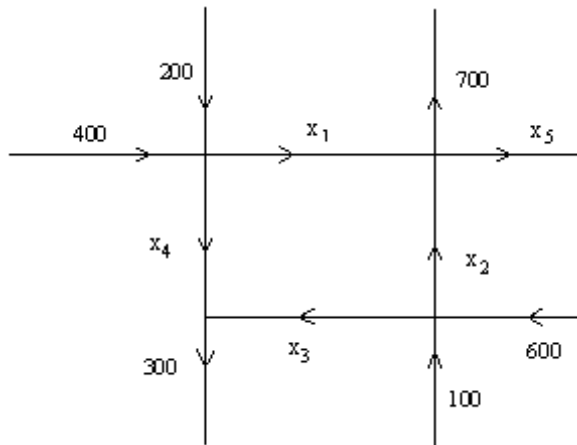
Solve the problem.

$$2) \text{ Let } a_1 = \begin{bmatrix} 1 \\ 2 \\ -3 \end{bmatrix}, a_2 = \begin{bmatrix} -3 \\ -4 \\ 1 \end{bmatrix}, a_3 = \begin{bmatrix} 2 \\ 1 \\ 6 \end{bmatrix}, \text{ and } b = \begin{bmatrix} -3 \\ 6 \\ -1 \end{bmatrix}.$$

Determine whether  $b$  can be written as a linear combination of  $a_1$ ,  $a_2$ , and  $a_3$ . In other words, determine whether weights  $x_1$ ,  $x_2$ , and  $x_3$  exist, such that  $x_1 a_1 + x_2 a_2 + x_3 a_3 = b$ . Determine the weights  $x_1$ ,  $x_2$ , and  $x_3$  if possible.

- 3) The network in the figure shows the traffic flow (in vehicles per hour) over several one-way streets in the downtown area of a certain city during a typical lunch time. Determine the general flow pattern for the network.

In other words, find the general solution of the system of equations that describes the flow. In your general solution let  $x_4$  be free.



Determine whether the matrix is invertible.

4) 
$$\begin{bmatrix} 5 & 5 & -5 \\ 6 & 2 & -6 \\ -2 & 0 & 2 \end{bmatrix}$$

Find a basis for the column space of the matrix.

$$5) B = \begin{bmatrix} 1 & -2 & 2 & -3 \\ 2 & -4 & 7 & -2 \\ -3 & 6 & -6 & 9 \end{bmatrix}$$

Determine the rank of the matrix.

$$6) \begin{bmatrix} 1 & 0 & -3 & 0 & 4 \\ 0 & 1 & -4 & 0 & 2 \\ 0 & 0 & 0 & 1 & 1 \\ 0 & 0 & 0 & 0 & 0 \end{bmatrix}$$

Compute the determinant of the matrix by cofactor expansion.

$$7) \begin{bmatrix} 2 & 1 & -1 \\ -2 & 2 & 5 \\ -2 & 1 & -3 \end{bmatrix}$$

Solve using Cramer's rule.

$$8) \begin{cases} 3x_1 - 2x_2 = 6 \\ 3x_1 + 2x_2 = 42 \end{cases}$$

Solve the problem.

9) Determine which of the following sets is a vector space.

$$V \text{ is the line } y = x \text{ in the } xy\text{-plane: } V = \left\{ \begin{bmatrix} x \\ y \end{bmatrix} : y = x \right\}$$

$$W \text{ is the union of the first and second quadrants in the } xy\text{-plane: } W = \left\{ \begin{bmatrix} x \\ y \end{bmatrix} : y \geq 0 \right\}$$

$$U \text{ is the line } y = x + 1 \text{ in the } xy\text{-plane: } U = \left\{ \begin{bmatrix} x \\ y \end{bmatrix} : y = x + 1 \right\}$$

Find an explicit description of the null space of matrix  $A$  by listing vectors that span the null space.

$$10) A = \begin{bmatrix} 1 & -2 & 3 & -3 & -1 \\ -2 & 5 & -5 & 4 & -4 \\ -1 & 3 & -2 & 1 & -5 \end{bmatrix}$$

Find the specified change-of-coordinates matrix.

11) Let  $B = \{b_1, b_2\}$  and  $C = \{c_1, c_2\}$  be bases for  $\mathcal{R}^2$ , where

$$b_1 = \begin{bmatrix} -1 \\ 5 \end{bmatrix}, b_2 = \begin{bmatrix} -2 \\ 4 \end{bmatrix}, c_1 = \begin{bmatrix} 1 \\ 3 \end{bmatrix}, c_2 = \begin{bmatrix} -4 \\ -10 \end{bmatrix}.$$

Find the change-of-coordinates matrix from  $B$  to  $C$ .

The characteristic polynomial of a  $5 \times 5$  matrix is given below. Find the eigenvalues and their multiplicities.

$$12) \lambda^5 - 11\lambda^4 - 45\lambda^3 + 567\lambda^2$$

Diagonalize the matrix A, if possible. That is, find an invertible matrix P and a diagonal matrix D such that  $A = PDP^{-1}$ .

$$13) A = \begin{bmatrix} -4 & 0 & 0 & 0 \\ 0 & -4 & 0 & 0 \\ 1 & -4 & 4 & 0 \\ -1 & 2 & 0 & 4 \end{bmatrix}$$

Define  $T: \mathbb{R}^2 \rightarrow \mathbb{R}^2$  by  $T(x) = Ax$ , where A is the matrix defined below. Find the requested basis B for  $\mathbb{R}^2$  and the corresponding B-matrix for T.

14) Find a basis B for  $\mathbb{R}^2$  and the B-matrix D for T with the property that D is an upper triangular matrix.

$$A = \begin{bmatrix} -134 & -529 \\ 36 & 142 \end{bmatrix}$$

Solve the initial value problem.

$$15) x' = Ax, x(0) = \begin{bmatrix} -5 \\ 15 \end{bmatrix}, \text{ where } A = \begin{bmatrix} 4 & -0.4 \\ 10 & 4 \end{bmatrix}$$



The given set is a basis for a subspace  $W$ . Use the Gram-Schmidt process to produce an orthogonal basis for  $W$ .

$$16) \text{ Let } x_1 = \begin{bmatrix} 0 \\ 1 \\ -1 \\ 1 \end{bmatrix}, x_2 = \begin{bmatrix} 1 \\ 1 \\ -1 \\ -1 \end{bmatrix}, x_3 = \begin{bmatrix} 1 \\ 0 \\ 1 \\ 1 \end{bmatrix}$$

Find a least-squares solution of the inconsistent system  $Ax = b$ .

$$17) A = \begin{bmatrix} 1 & 1 & 0 & 0 \\ 1 & 1 & 0 & 0 \\ 1 & 0 & 1 & 0 \\ 1 & 0 & 1 & 0 \\ 1 & 0 & 0 & 1 \\ 1 & 0 & 0 & 1 \end{bmatrix}, b = \begin{bmatrix} 7 \\ 8 \\ 0 \\ 2 \\ 4 \\ 1 \end{bmatrix}$$

Find the least-squares line  $y = \beta_0 + \beta_1 x$  that best fits the given data.

18) Given: The data points  $(-2, 2), (-1, 5), (0, 5), (1, 2), (2, 5)$ .

Suppose the errors in measuring the  $y$ -values of the last two data points are greater than for the other points. Weight these data points twice as much as the rest of the data.

$$X = \begin{bmatrix} 1 & -2 \\ 1 & -1 \\ 1 & 0 \\ 1 & 1 \\ 1 & 2 \end{bmatrix}, \beta = \begin{bmatrix} \beta_1 \\ \beta_2 \end{bmatrix}, y = \begin{bmatrix} 2 \\ 5 \\ 5 \\ 2 \\ 5 \end{bmatrix}$$

## Answer Key

Testname:

1)  $x_1 = -7 - 4x_2 - 5x_4$

$x_2$  is free

$$x_3 = -4 - 4x_4$$

$x_4$  is free

2) No solution

3)  $x_1 = 600 - x_4$

$$x_2 = 400 + x_4$$

$$x_3 = 300 - x_4$$

$x_4$  is free

$$x_5 = 300$$

4) No

5)

$$\left\{ \begin{bmatrix} 1 \\ 2 \\ -3 \end{bmatrix}, \begin{bmatrix} 2 \\ 7 \\ -6 \end{bmatrix} \right\}$$

6) 3

7) -40

8) (8, 9)

9) V only

10)

$$\begin{bmatrix} -5 \\ -1 \\ 1 \\ 0 \\ 0 \end{bmatrix}, \begin{bmatrix} 7 \\ 2 \\ 0 \\ 1 \\ 0 \end{bmatrix}, \begin{bmatrix} 13 \\ 6 \\ 0 \\ 0 \\ 1 \end{bmatrix}$$

11)

$$\begin{bmatrix} 15 & 18 \\ 4 & 5 \end{bmatrix}$$

12) 0 (multiplicity 2), 9 (multiplicity 2), -7 (multiplicity 1)

13)

$$P = \begin{bmatrix} 8 & 16 & 0 & 0 \\ 4 & 4 & 0 & 0 \\ 1 & 0 & 1 & 0 \\ 0 & 1 & 0 & 1 \end{bmatrix}, D = \begin{bmatrix} -4 & 0 & 0 & 0 \\ 0 & -4 & 0 & 0 \\ 0 & 0 & 4 & 0 \\ 0 & 0 & 0 & 4 \end{bmatrix}$$

14)

$$B = \left\{ \begin{bmatrix} 23 \\ -6 \end{bmatrix}, \begin{bmatrix} -4 \\ 1 \end{bmatrix} \right\}, D = \begin{bmatrix} 4 & 1 \\ 0 & 4 \end{bmatrix}$$

15)  $x(t) = \begin{bmatrix} -3 \sin 2t - 5 \cos 2t \\ 15 \cos 2t - 25 \sin 2t \end{bmatrix} e^{4t}$

16)

$$\begin{bmatrix} 0 \\ 1 \\ -1 \\ 1 \end{bmatrix}, \begin{bmatrix} 3 \\ 2 \\ -2 \\ -4 \end{bmatrix}, \begin{bmatrix} 14 \\ 2 \\ 9 \\ 7 \end{bmatrix}$$

## Answer Key

Testname:

17)

$$\begin{bmatrix} \frac{5}{2} \\ 5 \\ -\frac{3}{2} \\ 0 \end{bmatrix} + x_4 \begin{bmatrix} -1 \\ 1 \\ 1 \\ 1 \end{bmatrix}$$

18)  $y = 3.3 + 0.36x$

**Your Name:**

**Section 1:**

**Source Evaluation for an Article:**

**For this assignment, you are expected to locate an article that covered the 2020 Presidential Elections.**

**Type it here:** Name of the article, it's author, and where it was published.

<p>Explain what you learned from the assigned article by summarizing it. Make sure to include the following information: What were the main points? Is the article written/published by a public or private entity? Who is the author trying to reach (audience)? Is the author targeting a specific ideology and if so, what ideology is it? This section should be approximately 1-2 paragraphs.</p> <p><i>I want you to practice reading something and being able to pull out the main points. This will also help you answer the rest of the questions by providing you a platform to use as examples for your statements below.</i></p>	
<p><b>Open-Ended Questions*</b></p> <p>Write an open-ended question in regard to the article. It can be an open-ended question that you feel was being answered by the article OR one that was sparked by the article and you would now like answered.</p> <p><i>You can create an opened ended question about something you would like to know more about from reading the article. This is an essential critical thinking skill that will help you in your work after college.</i></p> <p><i>When coming up with a question, remember that it has to be open ended. That means that it cannot be a "yes/no" question or Do you like chocolate or vanilla ice cream. Instead, an open-ended question would be "What kind of ice cream do you like?"</i></p> <p><i>If you are stuck, start your sentence with "why," "how," or "what." Remember, your question CANNOT have a "yes/no" or similar type of answer; that would be a closed-ended question.</i></p>	
<p><b>Strategies for Understanding and Evaluating Messages**</b></p>	

<p>Address the delivery method of the article.  <i>Think about how this information was delivered to you: print or video. Was that a good way for you to receive this information? If it was a video, think about the background images and the sound effects; how did they influence how the message was delivered. Think about the language used (in either print or video); was any of more inflammatory than necessary? Why would these things impact the message or argument of this specific article/video?</i></p>	
<p><b>Evaluation and Production of Arguments, Part 1**</b>  Did you feel that the author/speaker had “authority” over the topic? Why or why not. How did the authority or lack thereof impact your belief or understanding of the argument presented?  <i>For example, was the author a political scientist, or an investigative journalist? This is <u>not</u> a question about the speaker’s tone or voice level. I want you to research and figure out if this person is an expert on this topic or a specialist. Do they have a degree in the topic they are addressing?</i></p>	
<p><b>Evaluation and Production of Arguments, Part 2**</b>  Did you feel that the claims by the author/speaker were supported? If yes, please give examples. If not, please identify how this lack influenced your belief of the speaker/author.  <i>For example, did they cite anything in the article or video? Did they reference any sources when addressing certain facts? If they didn’t cite anything, how did this impact the believability or “validity” of what they were saying? Did they say/write “millions of Americans love pink elephants” or did they say/write, “according to a study, millions of Americans love pink elephants” or did they say/write “According to a study by Harvard University, 30 million Americans love pink elephants” with Harvard University as a hyperlink to the actual study?</i></p>	
<p><b>Evidence Evaluation*</b>  Please identify and describe at least 2 different solutions to the problem identified in this assignment. Each solution should be at least 1 full paragraph (5 sentences) in length, but 2 paragraphs each is better.  <i>These solutions should be based on your evaluation of the materials included in the assignment, as well as using your prior knowledge (including but not limited to your newly gained knowledge from the applicable chapters).</i></p>	

**\*: GEN ED Critical Thinking**

**\*\* : GEN ED Communication**

### **Background Information**

At the beginning of the semester you read the article “Scientists Pinpoint How Ocean Acidification Weakens Coral Skeletons” by *Woods Hole Oceanographic Institution* (Jan 2018). The article addressed how environmental pH changes impact living systems and destroys coral reefs.

URL: <https://www.whoi.edu/press-room/news-release/scientists-identify-how-ocean-acidification-weakens-coral-skeletons/>

You have also been busy in the chemistry lab learning how to properly use lab equipment, read and follow lab protocols, how to safely use chemicals, as well as how to “think like a chemist”.

Your group project is an opportunity to combine what you’ve learned in lecture and in lab into a single “Think Like A Chemist” approach to a problem.

### **Assignment**

Your group project assignment is to design a small scale experiment investigating increasing acidification and destruction of coral reefs components.

You do not have to conduct the experiment! Instead, this assignment is focused on examining a real-world problem and developing a model that mimics the real-world problem.

You will present your project as a group Oral Presentation. Your information will be presented using PowerPoint (or similar software application) or poster-style presentation.

Your project must state the following information:

1. explanation of how your model mimics ocean acidification
2. explanation and justification of chemicals selected
3. testable hypothesis
4. all materials and equipment
5. laboratory protocol

You are limited to laboratory glassware, supplies and chemicals used over the course of the semester in CHEM 1110 lab.

All group project presentations will be delivered during Week 15 of the semester during the Chemistry Lab Session! Check your course calendar for specific date and time of presentations.

## **Annotated Digital Culture and Gender Journal and Process Reflection Project and Presentation**

Keep an [annotated](#) culture and gender Journal for two weeks, write a 5-page process reflection essay on the ways your own understandings of culture and gender have grown from the beginning of class until now, and create a short video presentation discussing your journal, process, and reflection.

I encourage each of you to look at this as an opportunity to study intersections of gender and culture within your own areas of interest, studies, and prospective careers.

Feel free to use materials that you or your classmates have posted in our weekly culture and gender discussions.

**DUE: July 28 — Video Presentation: Reflections on Gender and Culture —** you will submit this [HERE](#).

**DUE: August 1 — Annotated Digital Culture and Gender Journal and Process Paper —** **You will submit here, on this Canvas page,** as PDFs or Word or Google Docs.

### **Annotated Digital Gender and Culture Journal — 50 pts.**

Your journal should have the following:

- Original title
- Original journal cover
- Page numbers
- 14 pages for 14 days, each with an image, article, and/or video that has both cultural and gender-related relevance.
- Please upload your digital journal and your process reflection paper, if it all possible, *as one document*. If that is not possible, upload as many documents as you need and be sure things are labeled clearly and page numbers have been added. We can figure it out.
- Pages may include:
  - Videos
  - Images can be any of the following: personal or found photo, an image you've drawn/created/photographed, an advertisement, a logo, stills/screenshots from videos, visual art, a poem you've taken a picture of.

- If you're inspired and inclined, you may also create a collage of some kind.
- Each journal page should:
  - Have 2-4 paragraphs
  - Briefly describe the object/image and state where/whom it originally came/belonged, and/or was found or made.
  - Explain the object's relationship to:
    - Culture
    - Gender
    - Possible sociopolitical implications and subsequent individual and societal experiences a person or community may have as a result.

### **Process Paper: Reflections on Gender and Culture — 50 pts.**

5 pages, double-spaced, [MLA formatting](#), Works Cited page.

Your paper should discuss:

- The process of gathering images
- How and why you wrote what you wrote in your journal
- Your thinking and reflections about culture and gender between the beginning of the semester, up to now
- Reflections, impact, takeaways, and any constructive criticism about our class

Please avoid writing a lot more than five pages because part of what I'm asking you to do is to be able to explain things in clear, concise, and relevant ways.

Your process reflection paper should be attached to the back of your journal so that everything is in one document when you upload and submit it in Canvas.

### **Video Presentation: Reflections on Gender and Culture — 50 pts.**

Create a 3-5-minute video where you discuss and share from your digital journal and process reflection paper. You can read directly from your paper or speak on different highlights you'd like to share.

As well, show us images from your digital culture and gender journal throughout.

You will share these short presentations in a Canvas discussion during the last week of school.

Lastly, you will provide feedback on your classmates' presentations within the discussion.



# UNM General Education Certification Form for Submission to NMHED

## Application Form

The goal of the new models of General Education is to create an intentional curriculum that develops the essential skills that college graduates need to be successful. The New Mexico Curriculum & Articulation Committee will evaluate each certification form to understand how the course introduces, reinforces, and assesses the three essential skills.

## Essential Skills

The defining characteristic of the New Mexico General Education Curriculum Model is its focus on essential skills. Three essential skills are associated with each of seven content areas:

1. Communications: Communication, Critical Thinking, Information & Digital Literacy
2. Mathematics: Communication, Critical Thinking, Quantitative Reasoning
3. Physical & Natural Sciences: Critical Thinking, Personal & Social Responsibility, Quantitative Reasoning
4. Social & Behavioral Sciences: Communication, Critical Thinking, Personal & Social Responsibility
5. Humanities: Critical Thinking, Information & Digital Literacy, Personal & Social Responsibility
6. Arts and Design: Communication, Critical Thinking, Personal & Social Responsibility
7. Second Language: Communication, Critical Thinking, Personal & Social Responsibility

Faculty teaching courses within any given content area must weave the three related essential skills (and component skills) throughout their course while also addressing content knowledge and skills.

## Tips for Completing the General Education Course Application

- When pasting into the application from another document, paste your text without formatting.
- In the narratives, avoid qualifiers (frequently, often, given the opportunity) when discussing what students do throughout the course.
- The assessment that is uploaded should be an example of what is discussed in the narrative.
- Narratives should describe what activities students **do** to develop the essential skills throughout the course.

## Contact Information

Name	Tamar Ginossar
Title	Associate Professor
Phone	
Email	ginossar@unm.edu

## Institutional Course Information

Prefix	COMM
Number	2121
Title	Interpersonal health communication
Number of credits	3
Was this course previously part of the Gen Ed Core Curriculum?	No

## A. Content Area and Essential Skills

To which area should this course be added? (select one/delete others)

### Communication

## B. Learning Outcomes

List all common course student learning outcomes for the course.

Common Course Student Learning Outcomes (find Common Course SLOs at:

<http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx>)

## Core Communication Competencies Addressed

### **Communication.**

*This SLO relates to **course SLO1-8***

1. Identify at least two medical models and their approach to health communication
2. List major issues facing health care and their implications for health communication
3. Understand the impact of health communication on patients' health outcomes
4. Apply concepts of the medical talk in patient-provider simulations
5. List major approaches to effective communication in culturally diverse health care organizations
6. Identify underserved communities and groups and inclusive communication strategies
7. Describe the role of technology in health communication
8. Understand basic methods of health communication research

## Critical Thinking

### **Critical Thinking – Problem Setting:** *Delineate a problem or question.*

*This SLO relates to course SLO 1-8*

9. Identify at least two medical models and their approach to health communication
10. List major issues facing health care and their implications for health communication
11. Understand the impact of health communication on patients' health outcomes
12. Apply concepts of the medical talk in patient-provider simulations
13. List major approaches to effective communication in culturally diverse health care organizations
14. Identify underserved communities and groups and inclusive communication strategies
15. Describe the role of technology in health communication
16. Understand basic methods of health communication research

**Critical Thinking – Evidence Acquisition:** *Identify and gather the information/data necessary to address the problem or question.*

*This SLO relates to **course SLO1-8***

1. Identify at least two medical models and their approach to health communication
2. List major issues facing health care and their implications for health communication
3. Understand the impact of health communication on patients' health outcomes
4. Apply concepts of the medical talk in patient-provider simulations
5. List major approaches to effective communication in culturally diverse health care organizations
6. Identify underserved communities and groups and inclusive communication strategies
7. Describe the role of technology in health communication
8. Understand basic methods of health communication research

**Critical Thinking – Evidence Evaluation**

*This SLO relates to **course SLO8** (see above)*

**Critical Thinking - Reasoning/Conclusion:** *Develop conclusions, solutions, and outcomes that an informed, well-reasoned evaluation.*

*This SLO relates to **course SLO1-8**.*

**Information and Digital Literacy**

**Information and Digital Literacy – Authority and Value of Information:** *Recognize the interdependent nature of the authority and value of information and use this knowledge ethically when selecting, using, and creating information.*

*This SLO relates to **course SLO8**.*

**Information and Digital Literacy – Digital Literacy:** *Understand, communicate, compute, create, and design in digital environments.*

*This SLO relates to **course goal 2**: “Students will use appropriate technological tools to complete course activities and assignments.”*

**Information and Digital Literacy – Information Structures:** *Select, use, produce, organize, and share information employing appropriate information formats, collections, systems, and applications.*

*This SLO relates to **course SLO5**: “**develop** comprehension and analytical reading, writing, and evaluation skills through class assignments.”*

### **Institution-specific Student Learning Outcomes**

List all institution-specific Student Learning Outcomes that are common to all course sections offered at the institutions regardless of instructor. (tip for success: Institution-specific SLOs should not be more than 20% of total Common Course SLOs and Institution-specific SLOs)

### C. Three Narratives on How Students Learn the Essential Skills for the Content Area

Write a short (~300 words) narrative for each essential skill aligned with the content area in which your course falls. Explain how the course weaves the essential skills associated with the content area throughout the course. Explain what students are going to do to develop the essential skills and how you will assess their learning. The narrative should be written with a general audience in mind and avoid discipline specific jargon as much as possible.

***Be sure to address the component skills for each of the three essential skills.*** Please refer to this description of component skills: [https://hed.state.nm.us/resources-for-schools/public\\_schools/general-education](https://hed.state.nm.us/resources-for-schools/public_schools/general-education). Note that only 2 of 5 possible component skills must be addressed for Personal and Social Responsibility and only 3 of 4 possible component skills must be addressed for Information and Digital Literacy.

### Core Communication Competencies Addressed

#### ***Communication.***

This course begins to prepare students for communication in subsequent college courses and in the workplace, personal and social spheres, and civic life, by examining the role of communication in health in these diverse contexts. Furthermore, the course will facilitate students' growth in becoming versatile communicators who can respond to a diverse range of situations by different in-class role playing exercises. By practicing health communication skills in the course, students should achieve proficiency in diverse communication tasks, including advocacy (as a consumer/patient), history taking (as a provider), etc. The final project for the course is specifically designed to demonstrate that research "is an interactive process of inquiry that defines a problem or poses a question and through research generates a reasonable solution or answer." The final project first requires students to articulate a question related to Introduction to Health Communication. Second, they must find at least three different sources that address or answer the question they ask. Third, they must assess the bias and credibility of each source. Fourth, they must explain the conclusions they draw about their question, the answers to it, and the sources that they consult for answers. This assignment is designed to support the students as writers who can communicate effectively with group members and readers.

### Critical Thinking

***Critical Thinking – Evidence Evaluation:*** Evaluate evidence/data for credibility (e.g. bias, reliability, validity), and probable truth, and relevance to a situation.

The empirical study presentation is specifically designed to teach students how to assess research, including the biases and credibility of research.

**Critical Thinking - Reasoning/Conclusion:** *Develop conclusions, solutions, and outcomes that an informed, well-reasoned evaluation.*

Through the different assignments, students will be required to answer questions and to explain how they arrived at their opinions or conclusions using specific examples. The final project requires students to demonstrate reasoning skills more substantially, because students develop a question and attempt to answer it through an informed, well-reasoned evaluation process that also demonstrates the ability to synthesize different approaches and perspectives.

#### D. Sample Assignment

Provide here or as an attachment a sample assignment (exam, project, paper prompt, etc.) demonstrating how students will be assessed on learning an essential skill and one or more related component skills.

(Tip for success: refer to the assignment in one of your narratives on how essential skills are taught)

#### PRESENTATION OF A STUDY 15 Points

*You can choose from three topics (and corresponding dates) of presentation: a. Patient-provider communication, b. Health communication and inequities (disparities) and culture, or c. Coping/Information seeking. See schedule for due dates.*

*Objectives of this assignment: To get familiarized with library search and with actual empirical communication research, and to reflect on its strengths and limitations.*

**First Step:** Identify 3 studies about your specific topic. For example, you might be particularly interested in family communication and identify three articles on the topic. Make sure they are available in full text. Submit the citations (references) for these studies, along with their abstracts, indicating your *first choice*.

Following my approval, you will summarize it and present it to class.

We will use a poster session for your presentations. Poster-session presentations should have the same information as PowerPoint presentations/lectures, only on posters. You are welcome and encouraged to use recycled cardboard, such as from a box, rather than a new one. I also have some to share from previous students.

General description of the assignment: **Present a brief report (not more than five minutes and five slides) that addresses a specified question based on a relevant research report.**

The task is not only to summarize the article. Instead, the task is to say "here's what we seem to know about X (the issue or topic), based on this article"

So, in brief form, the steps to follow are:

- (1) Choose the topic that interests you and identify three relevant articles available in full text, then download the full texts and save them.
- (2) Post the name of the author, year, and title as well as the abstracts to the discussion group .
- (3) Once your article is approved, read it thoroughly .
- (4) Write the presentation.
- (5) Prepare the presentation and slides/poster.
- (6) Present to class.

You should not read it when presenting. Rather, write an outline of the major points, and discuss them in class. Slides/posters are crucial for a clear presentation. They should be typed (use fonts of 32 and larger), and present the main points in a clear visual manner.

Slide #1 Cite the author/s and year, title and journal- APA Style

Slide #2 Lit review-what was known about the topic, rationale

Slide #3 Research question (RQ) or hypotheses

Slide #4 Methods

Slide #5 Results

Slide #6 Conclusions- strengths and weaknesses, implications for future studies

Make sure you understand the study, as your classmates will ask you questions about it.

#### Criteria for evaluation of the assignment

Three primary criteria will be applied when grading the submitted report. These criteria relate to the **retrieval, representation, and integration of source materials (the article reviewed).**

First, does the presentation display the successful retrieval of source materials? Higher marks will be given to students who locate highly relevant articles.

Second, does the presentation provide accurate representation of the article? Students who fail to identify relevant portions of the materials or that contain inaccurate descriptions of the materials will receive lower marks.

Third, does the presentation provide a clear and insightful treatment of the material being presented?



## Contemporary Social Briefs: Instructions

SOCI 2310 at ENMU-Roswell

### **WHAT IS A POLICY BRIEF AND WHY ARE WE DOING ONE IN THIS CLASS?**

According to Mooney, Knox, and Schacht (2017), “a social problem is a social condition that a segment of society views as harmful to members of society, and is in need of remedy” (p. 5). The strife felt around the world from a lack of understanding of our common humanity and the inability to celebrate the diversity in which communities address our basic human needs, manifests itself in a multitude of conflicts and clashes. In the 21<sup>st</sup> century, in a time of increasing globalization and correlated inequity around the world, it is necessary to dig into the play book of applied sociology more than ever. While it is easy to dwell on the harm happening locally and abroad, I want to ensure that we keep on focus on solutions and remedies. This assignment is to help you start to understand research in the social sciences, understand the impact sociologists can have on society, as well as potentially addressing a topic that is near and dear to you (which is essentially the sociological imagination at work). Therefore, you will be writing a policy brief for this course.

This might be a new concept for you! Have no fear, I will walk you through the entire process as we go through the semester together. Essentially, a policy brief is a very structured research paper that is provided to some establishment (explained below) where you prove why this issue is important and urgent, you address what is causing the issue, and you offer a viable solution.

At its core, a policy brief has five sections:

1. Executive Summary
2. Context of Social Issue
3. Critique of Policy Options
4. Policy Recommendations
5. Sources Consulted (Annotated Bibliography)

I will provide you with a template for your brief that you **MUST** use.

For this assignment, you will be stepping into the role of a sociologist that has been asked by one of the establishments (listed below) to advise them about a social problem that you see, either at a local (Roswell or your local area), national, or international level. It is important to remember that the chosen establishment must have the power to potentially help to achieve resolution to the problem you are advising them on. I would prefer that the establishments you choose be real.

#### **Possible Establishments:**

- 1) The local governing body and/or agency,
- 2) The relevant international governing body and/or agency,
- 3) An NGO,
- 4) The Secretary of State of the United States of America, or
- 5) The United Nations (applicable committee, working group, council, et cetera).

## Contemporary Social Briefs: Instructions

SOCI 2310 at ENMU-Roswell

### Broad Topics:

There will be a series of broad topics that you will pull from for identifying the policy you will be addressing. As these are broad topics, you must drill down into a VERY specific policy. For example, if you choose to address Gender Inequality, you must identify a specific policy that is an issue, such as maternity leave, the pink tax, or access to birth control (to name a few...there are many more!). This list of broad topics below is essentially a list of the chapters we will be covering in our class. Use these as a starting point and skim (or reread) the chapter to identify a specific policy or issue that you'd like to address in this assignment. However, if you feel passionate about an issue that doesn't fall into one of these broad categories (or isn't covered in our textbook), please let me know and we will see if we can make it work.

#### *Broad Topics*

- Physical and Mental Health and Health Care
- Alcohol and Other Drugs
- Crime and Social Control
- Family Problems
- Work and Unemployment
- Problems in Education
- Race, Ethnicity and Immigration
- Gender Inequality
- Sexual Orientation and the Struggle for Equality

### Components/Parts Your Policy Brief Assignment:

This is a multi-part assignment that will make up 21.5% of your final grade. Each part is worth a separate amount of points, to help support your ability to be successful. We will be working on this in class, but the majority of the work will be completed by you outside of the classroom.

#### *Part 1: Rough Drafts for the Policy Brief Section*

Throughout the semester, you will be responsible for submitting rough drafts of each policy brief section (as outlined in the template as well as listed on the previous page of this instructional handout). They are not going to be submitted in order due to the nature of their development. The schedule is laid out below, as well as in the course schedule in the syllabus.

*It is essential that you understand that a rough draft is not an incomplete document.* It is simply a draft that will be updated and edited after you receive feedback from me. The feedback you receive will only be helpful if what you submit is a complete draft. I will not award points for partial submission or incomplete drafts since that is not a good use of my time or helpful to you in the long run.

For these submissions, you will still be using the template I provided for the final draft. Essentially, you will be submitting the same document with the updates in your template as you complete each section. Each of these sections is worth 15 points, for a total of 90 points.

#### *Due Dates for the Policy Brief Sections (Rough Drafts)*

- Topic for Policy Brief: 2/07/2021 at 11:59 PM MST
- Annotated Bibliography (Sources Consulted): 2/28/2021 at 11:59 PM MST
- Context of Social Issue: 3/14/2021 at 11:59 PM MST

## Contemporary Social Briefs: Instructions

SOCI 2310 at ENMU-Roswell

- Critique of Policy Options: 4/04/2021 at 11:59 PM MST
- Policy Recommendations: 4/18/2021 at 11:59 PM MST
- Executive Summary: 4/25/2021 at 11:59 PM MST

### Part 2: Final Draft Submission

You will submit your Final Draft Policy Brief after receiving and implementing the feedback from me for each section. If I do not see evidence that you improved your rough draft submissions, you will receive a zero on the assignment. Essentially, if you are not making improvements, you are not showing growth. This final draft submission is worth 125 points and is due on May 2<sup>nd</sup> on Blackboard at 11:59 PM MST.

### **Format of the Policy Brief:**

The Policy Brief will be 4-5 pages, single spaced, Times New Roman font, size 12 (essentially APA, but single spaced). Remember, I am providing you with the template for your brief, so you will NOT be following the traditional APA research paper template/structure. My template that you will be using is located in Class Resources, as well as in the Final Draft assignment submission portal. **You must use this template!**

### **Special Note for Sources Consulted Section:**

You will need to cite your evidence, both in the brief and in a References page, using APA formatting. The APA's Reference page will be your "Sources Consulted" section; therefore, you will have a total of five sections. You will need at least 7 sources for your policy brief. None of the sources can be Wikipedia or other versions of Wiki. Additionally, make sure to use signal phrases when introducing evidence. See *The Bedford Handbook* or *A Writer's Reference* for support on this skill.

It is important to note that at least 7 of your sources must be used in the brief, not simply listed on the Sources Consulted page. This will be an annotated bibliography, which means that you will have the end of text citation, as well as a brief summary (3-5 sentences) of each source. We will go over how this is done in class closer to the due date.

## CJUS 2360- Criminal Procedures

Choose a court case in the United States court system that you are interested in. Compose a five-page (not including Works Cited page) research paper on the topic. Provide details on subject apprehension or factual materials on the case you selected. Utilize your textbook and website readings to form an argument. Provide an argument as to whether any Constitutional violations occurred. Provide details about the case by discussing events of the case, including searches for evidence and the outcome of the trial and any appeals. Provide explicit details of the case and your assessment of the entire criminal procedural process. Be sure to cite all resources. Your grade will be based on format, introduction, conclusion, paragraph structure/transitions/organization, development, language and mechanics.

## CJUS 2360- Criminal Procedures Rubric

20 %	Format (heading, margins, header, citations, etc.)
20 %	Introduction (clear thesis & introductory summary)
10 %	Conclusion (sense of finality)
10 %	Paragraph Structure/Transitions/Organization
15 %	Development (quality of discussion/analysis/essay length)
10 %	Language (coherence, word usage/choice)
15 %	Mechanics (grammar, punctuation, spelling)

## **Assignment / HUMN 1110: Intro to World Humanities I**

### **RESEARCH PAPER ASSIGNMENT – TWO PARTS**

#### **Assignment:**

You will be required to write a 4-page research paper for this course – please follow the format I have needed for the response paper (TNR, 12pt font, black, double-spaced). You will need to formulate an original thesis statement for your paper. This is not simply a research paper over a person, place, or piece—the research paper where you create the topic based on the information learned from the text. Creating an original argument requires you to develop a unique paper idea that has not been used before. Some examples have been provided below (please do not copy the examples).

You will turn in an outline/rough bibliography in advance of the paper due date – see blackboard assignments. It will be worth 40 points of the total 160 points available. The paper is worth 120 points. Without the bibliography, the highest grade you can make on the research paper assignment is a 75. I recommend using a sentence-style outline – this will help you keep your information organized and prevent you from waiting until the last minute. If I see an outline/idea that isn't an original argument, I will let you know.

#### **Sources:**

You must have at least 5 (five) sources to support your research in this assignment. 1 (one) source will be your textbook; only two (2) internet sources are allowed; the rest is up to you (journal, article, magazine, newspaper, book, etc.). You can use MLA formatting OR APA formatting for this paper (whichever area you use more depending on your major). You can have more sources, but not less. If you have more than two internet sources, you still have to have a minimum of three other types of sources.

To avoid any plagiarism, you will be required to use in-text citations. If you do not know how to create in-text citations, you will need to research it (it is different for MLA than APA). IN-text citations, let me know where and from whom you retrieved your information. Without them, it appears that all the information in the paper is yours, and if I find that information elsewhere, it will be considered plagiarism; you will receive a zero on the assignment.

You will include an official work cited page (MLA or APA) at the end of your assignment. The BIB/CITED PAGE DOES NOT COUNT AS ONE OF THE REQUIRED FOUR PAGES. Altogether, the paper + work cited page will be five pages. If you are unsure what in-text citation is or looks like, or what a work cited page is, please visit [www.dianahacker.com](http://www.dianahacker.com) OR [www.owl.english.purdue.edu](http://www.owl.english.purdue.edu). You can also visit [www.sonofcitationmachine.net](http://www.sonofcitationmachine.net) to assist you.

Also, you CANNOT use Wikipedia as a source. This is not a viable source of information. If you use Wikipedia, I will not accept your paper.

So what exactly is an "original argument/thesis?" I am looking for such a thesis that shows you are attempting to draw conclusions based on the research at hand. An original argument is an argument that is all yours, something you came up with. This is different than simply researching one thing and gathering all the information about that one thing. An original argument ties together information and creates a unique statement about the information.

For example:

Wrong: "The Catholic Church exists today all across America and the world." (This doesn't seem right because it is not an original idea. Everyone knows this already.)

Correct: "The Catholic Church's influence has created division among Christian-based organizations regarding the interpretation of communion" (Then use research to support that statement!) How did it do that? What sources do you have that supports your idea? If you can't find any references to help your idea, then perhaps you need a different view.

Other Examples of Original Arguments/Thesis:

- Egyptian art and religion helped shape the western world's understanding of Christianity (or Islam).
- Medieval religious doctrine helped the spread of theatre through the dark ages.
- Totalitarianism through the ages has sparked the development of democracy.
- The Oath of Horatii is a parable for any conflict the student chooses.

**Eastern New Mexico University-Roswell**  
**ECON 2120 Microeconomics**  
**Assessment**

The following essay questions cover Communication, Critical Thinking, and Personal & Social Responsibility skills.

1. During the Second World War, Germany saw its factories decimated. It also suffered the loss of many lives. How did the war affect its production possibilities curve and what were the implications for their ability to continue the war?
2. Hospitals in Roswell face a chronic shortage of nurses. Use supply and demand analysis to explain the shortage. Also use your analysis to suggest how the state might address the shortage.
3. Markets offer an efficient way to put buyers and sellers together to determine the quantity of goods which will be produced, the price that will be charged. The principle that voluntary exchange benefits both buyers and sellers is a fundamental building block of the economic way of thinking. But the efficiency of markets depends on the assumption that only the buyer and seller are affected by the transaction. What happens when a voluntary exchange affects a third party who is neither the buyer nor the seller?
4. Externalities create both efficiency and ethical problems. Explain why.
5. Explain why many economists favor using corrective taxes rather than regulation to address externality problems.
6. Perfectly competitive firms are price takers, while monopolies are price makers. Explain why this is so. Also, explain how monopolies determine how much to produce and what price to charge.
7. Monopolistic competition implies inefficiency. It also implies benefits in terms of choice. Explain.
8. In the Prisoners' Dilemma game, both players (Mutt and Jeff) would benefit by colluding but choose not to. Explain why.
9. A natural monopoly is inefficient. What policies would you recommend that the government pursue to minimize their harm?
10. Explain the difference between poverty and inequality. Is one more important than the other? What steps would you recommend to address these problems?



# Case Study: New Jersey Black Bears

by Chris Kling, illustrated by Hannah Kling

## Introduction

The American black bear (*Ursus americanus*) is native to New Jersey. Prior to European settlement, black bears lived in forested regions throughout the state. As settlement progressed, forests were cleared for towns, farming, and lumber. Additionally, black bears were killed by settlers to protect their crops and livestock. Loss of habitat and unregulated killing caused the black bear population to sharply decline throughout the 1800s. Fewer than 100 bears are thought to have inhabited the state by the 1950s. Since the 1970s, New Jersey's black bear population has been increasing and expanding its range southward and eastward from the forested areas of northwestern New Jersey. An increase in high-quality black bear habitat as agricultural land reverted to forest, the protection afforded by game animal status, and bears dispersing into New Jersey from increasing populations in Pennsylvania and New York have each contributed to the population growth. Additionally, due to New Jersey's excellent habitat, mild climate, and abundant food sources, the state's black bears have some of the largest litters (1-6, with an average of 3) and highest reproductive rates in the nation. Reproduction has been observed in New Jersey black bear females as young as two years of age, and as old as 20 years of age, and female black bears generally breed every other year. Today, black bears can be found throughout the state. New Jersey faces complex challenges in simultaneously managing both more bears and more people per square mile than any other state in the nation.

The New Jersey Division of Fish and Wildlife's black bear management strategy is an integrated approach that includes research and monitoring, non-lethal and lethal control of problem bears, public education on how to coexist with bears, enforcement of laws designed to reduce bear-related conflicts, and bear population control. The New Jersey Division of Fish and Wildlife has implemented a black bear response policy to be implemented when nuisance calls are placed to a hotline number they have established. After an investigation of a nuisance report, black bears are assigned to the following categories:

Category I—bears which constitute a threat to life and property. Category I black bears are euthanized.

Category II—nuisance bears that are not a threat to life and property. Category II black bears are aversively conditioned.

Category III—bears exhibiting normal behavior and not creating a nuisance or a threat to human safety. Dispersing bears ("urban" bears) are Category III.

In September 2014, a fatal predatory black bear attack occurred in New Jersey, resulting in the death of a 22-year old male college student. It is the first documented bear fatality in New Jersey's history. Though extremely rare, attacks occur throughout black bear habitat in North America. If New Jersey's black bear population is allowed to grow without human intervention, the population would increase until reaching Biological Carrying Capacity (BCC), the number of bears the ecosystem can sustainably support. This number is likely far higher than the Cultural Carrying Capacity (CCC), the number of black bears the public will tolerate. The Northwest region of New Jersey is home to the largest concentration of black bears in the state and is open to bear hunting as part of New Jersey's black bear management strategy. Wildlife biologists report that bear hunting seasons reduce nuisance complaints in part due to population reduction, but more so due to behavior modification. This occurs in part because nuisance bears are less afraid of humans and therefore more likely to be harvested by hunters. Additionally, black bears change their behavior in response to hunting seasons and are more likely to avoid human contact in regions where hunting seasons are in effect. Fortunately, the New Jersey Division of Fish and Wildlife has collected one of the most comprehensive, long-term datasets in existence to guide decision-making with regard to black bear population management. However, wildlife population data is very difficult to collect

and lacks the precision that biologists would prefer. One of the great challenges faced by wildlife biologists is that they are tasked with making decisions with incomplete and imprecise data. In this case study, you will join the wildlife biologists at the New Jersey Division of Fish and Wildlife in making these difficult black bear management decisions

**Figure 1.** Northwest region of New Jersey, a region of approximately 1,500 square miles that is open to bear hunting



*Source: New Jersey Division of Fish and Wildlife*

**Table 1. New Jersey Black Bear Vehicle Strikes, Nuisance and Damage Reports, Hunting Harvest, and Estimated Northwest NJ Region Population Size 2001-2018**

Year	Vehicle Strikes	Total Nuisance and Damage Reports	Hunting Harvest	Estimated Northwest New Jersey Region Black Bear Population <sup>1</sup>
2001	n/a	1,096	0	1,000
2002	n/a	1,412	0	1,350
2003	n/a	1,308	328	1,750
2004	n/a	756	0	1,750
2005	n/a	1,104	298	2,000
2006	n/a	833	0	2,100
2007	n/a	900	0	2,550
2008	n/a	1,869	0	3,000
2009	145	2,174	0	3,500
2010	157	2,065	592	4,000
2011	178	1,932	469	3,500
2012	153	1,489	287	3,100
2013	80	1,231	251	3,250
2014	135	1,968	272	3,450
2015	134	1,454	510	3,700
2016	107	1,405	636	3,300
2017	92	705	409	3,000
2018	86	703	225	2,900
2019	n/a	n/a	n/a	3,250

*Sources: Vehicle Strikes, Total Nuisance and Damage Reports, and Hunting Harvests provided by the New Jersey Division of Fish and Wildlife*

*<sup>1</sup>Estimated Population Size was calculated independently, and represents the black bear population on the day before the hunting season of the year estimated.*

## Questions

1. We often talk about biological carrying capacity (BCC) of the ecosystem, the number of black bears the habitat can support. But what may be more important in the 21st century is estimating cultural carrying capacity (CCC). Explain what is meant by cultural carrying capacity.

2. Calculate the percent increase of the black bear population in the Northwest region of New Jersey from 2001 to 2010. Show all of your work and clearly label each step.

Percent Increase Formula:  $[(\text{New Value} - \text{Initial Value}) / \text{Initial Value}] \times 100 = \% \text{ increase}$

3. Calculate the percent increase in black bear population in the Northwest region of New Jersey from 2010 to 2019. Show all of your work and clearly label each step.

4. How do you explain the difference in population growth between the 2001-2010 and 2010-2019 time periods? Use evidence and reason to explain your answer.

5. The Northwest region of New Jersey is approximately 1,500 square miles. If there are currently 3,250 black bears in this region, what is the population density of black bears in this region? Show all of your work and clearly label each step.

6. The New Jersey bear hunting season takes place near the end of the year. Based on the data in Table 1, what is the relationship between the bear harvest from the hunting season and nuisance reports the following year?
7. Based on the data in Table 1, what is the relationship between the initiation of a regular annual hunting season in 2010 and vehicle strikes?
8. Based upon the data set, estimate what you think is the cultural carrying capacity for black bears in New Jersey? Defend your chosen number using evidence and reasoning.
9. What black bear management tools do we have to bring the black bear population in line with your estimated cultural carrying capacity?
10. Which of the tools identified in the previous question is the best combination of effective and cost-effective for New Jersey residents?
11. Archaeological excavations and historical records indicate that Native Americans and early European Settlers used black bear meat as a source of nutrition, hides were fashioned into garments and blankets, fat was used for cooking, to fuel lanterns, as a waterproofing agent, as skin lotion, and as an insect repellent, and bones and claws were made into tools and decorations. In what ways do black bears benefit humans today?

The New Jersey Division of Fish and Wildlife's integrated bear management strategy strives to maintain a sustainable black bear population within suitable habitat, minimizes human-bear conflicts, and reduces emigration of black bears to unsuitable habitat in suburban and urban areas. Following the implementation of an annual bear hunting season in 2010, it appears the black bear population in New Jersey may be beginning to stabilize at a level biologists at the New Jersey Division of Fish and Wildlife believe is consistent with the cultural carrying capacity for this species in the state. Based on data from the 2006 to 2010 period with no hunting seasons, it is predicted that the current estimated bear population of 3,250 in Northwest New Jersey will double by 2022 if the regulated hunt is removed as a management tool. In spite of this, many remain opposed to bear hunting. Do you think removing the bear hunt is a scientifically and culturally sound decision? Use evidence and reasoning to defend your position.

## References/Resources

Andrew Friedland and Rick Relyea. Environmental Science for the AP<sup>®</sup> Course. Third edition. Publisher: W. H. Freeman. 2018.

Black Bear Activity Reports. New Jersey Division of Fish and Wildlife. [https://www.state.nj.us/dep/fgw/bearactivity\\_reports.htm](https://www.state.nj.us/dep/fgw/bearactivity_reports.htm)

Comprehensive Black Bear Management Policy. New Jersey Division of Fish and Wildlife. <https://www.state.nj.us/dep/fgw/bearpolicy15.htm>

An Evaluation of Black Bear Management Options. The Northeast Black Bear Technical Committee. August 2012. [https://www.dgif.virginia.gov/wp-content/uploads/BearMgmtOptions\\_NEBBTC2012.pdf](https://www.dgif.virginia.gov/wp-content/uploads/BearMgmtOptions_NEBBTC2012.pdf)

Evaluation of Genetic Structure and Population Estimate In New Jersey Black Bears (*Ursus americanus*).  
[https://www.state.nj.us/dep/fgw/pdf/bear/policy\\_lit/genetics\\_rpt.pdf](https://www.state.nj.us/dep/fgw/pdf/bear/policy_lit/genetics_rpt.pdf).

Know the Bear Facts: Black Bears in New Jersey. <https://www.state.nj.us/dep/fgw/bearfacts.htm>

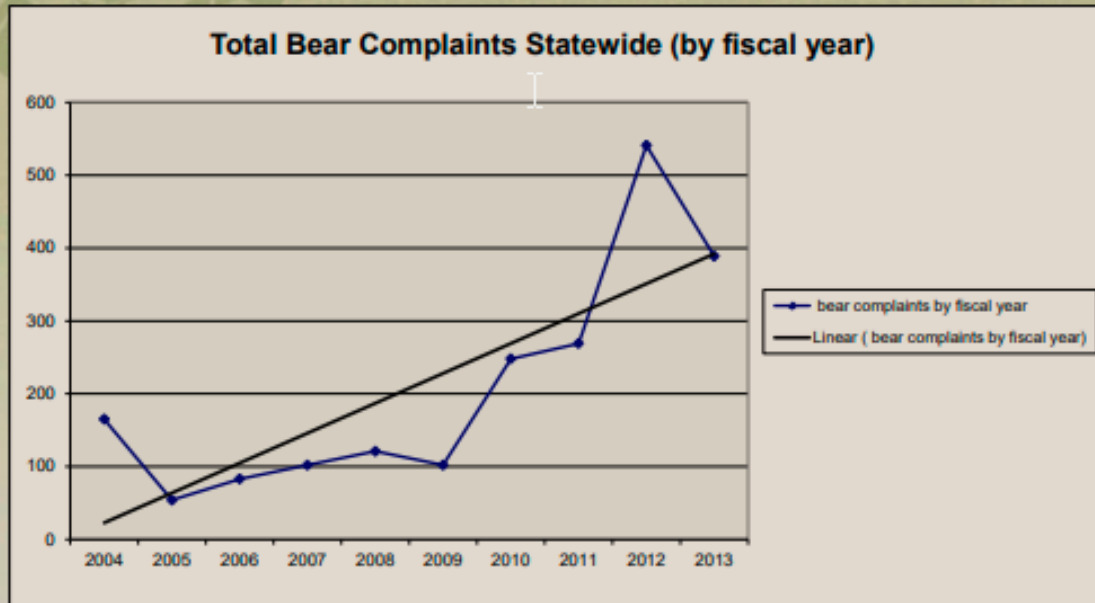
Untamed Science: An Introduction to Black Bears. <http://blackbearinfo.com/>

## New Mexico Black Bears:

*Have they reached the cultural carrying capacity?*

Below is a graph of older data illustrating the number of bear complaints from 2004 to 2013 in New Mexico.

# Depredation & Nuisance Abatement Report: Fiscal Year 2013



Consider the more recent data in the “Black Bear Mortality” pdf (posted in Hapara as a resource card). The following data are reported for black bears in New Mexico.

Sport Harvest: Number of bears legally taken with a hunting license

Depredation Kill: Number of bears trapped and euthanized due to killing or attempting to kill livestock or pets or due to human safety issue

Other (road-kill, accident...): other bear deaths reported to/by NM Game & Fish

Imagine that you are the biologist that is tasked with reporting the data to the New Mexico Game Commission and making harvest recommendations. You need to do two things: first, present your data in graphs so that it is easily understandable; second, answer the following question in your presentation:

1. Are bear harvest numbers (and number of licenses issued annually) adequate, too high, or too low? What is your recommendation for how many licenses the State should issue (the same amount, fewer, or more)?

In order to make this recommendation, you should first analyze the data by graphing it. Then, you should look at the relationship between harvest numbers, depredation numbers, and road-kill. Mostly, the trend in the depredation numbers will point at whether or not the New Mexico black bear population is at or near its cultural carrying capacity. And your harvest recommendation should follow your logic.

1. Insert your graph or graphs here. (Pictures of hand-drawn graphs OR computer-generated graphs are acceptable.)
2. Make your recommendation: Should black bear harvest numbers (controlled by number of permits allowed) be kept the same, increased or decreased?
3. Explain your reasoning.
4. What other data would you like to have before presenting your recommendation?

## Data

**Table 1. Black Bear Mortality in New Mexico, 2012, New Mexico Department of Game and Fish.**

Zone	Game Management Units	Sport Harvest			Depredation			Road Kill/Other			Totals
		Fem	Male	Unk*	Fem.	Male	Unk.	Fem.	Male	Unk.	
1	4 - 7, 51, 52	43	85	0	9	12	0	2	6	1	158
2	2	0	0	0	0	0	0	0	0	0	0
3	48 - 50, 53	15	30	0	8	3	0	1	2	0	59
4	45, 46	29	69	0	2	5	0	2	7	1	114
5	54, 55	31	20	0	0	8	0	3	9	1	74
6	41 - 43, 47, 59	3	5	0	0		0	2	2	0	12
7	56, 57, 58	12	11	0	2	1	0	1	2	0	29
8	8	1	0	0	1	1	0	2	1	0	6
9	9, 10	6	11	0	1	3	0	2	0	0	23
10	12, 13, 15 - 18, 20 - 24, 26, 27	48	76	0	3	14	1	1	3	0	145
11	37, 38	5	7	0	0	1	0	0	1	0	14
12	34	11	19	0	0	3	1	0	0	0	34
13	36	12	13	0	2	4	0	1	0	0	32
14	14	5	1	0	1	4	0	1	1	1	14
		221	347	0	29	59	2	18	34	4	714

\*Unk – Unknown, sometimes the sex is impossible to determine due to decomposition or physical damage.

**Table 2. Black Bear Mortality in New Mexico, 2013, New Mexico Department of Game and Fish.**

Zone	Game Management Units	Sport Harvest			Depredation			Road Kill/Other			Totals
		Fem.	Male	Unk.	Fem.	Male	Unk.	Fem.	Male	Unk.	
1	4 - 7, 51, 52	47	81	1	5	12	1	5	2	0	154
2	2	3	2	0	0	0	0	0	0	0	5
3	48 - 50, 53	15	16	0	3	12	0	1	0	0	47
4	45, 46	28	42	0	5	18	0	3	7	0	103
5	54, 55	15	24	0	7	21	0	3	3	2	75
6	41 - 43, 47, 59	6	13	0	0	3	0	0	1	0	23
7	56, 57, 58	11	11	0	4	7	0	1	5	0	39
8	8	1	0	0	6	11	0	9	2	0	29
9	9, 10	10	14	0	0	6	0	1		0	31
10	12, 13, 15 - 18, 20 - 24, 26, 27	52	84	0	6	22	0	2	4	0	170
11	37, 38	6	14	0	0	2	0	0	0	0	22
12	34	10	4	0	0	2	0	0	0	0	16
13	36	11	16	0	6	4	0	1	1	0	39
14	14	4	4	0	5	4	0	1	5	2	25
		219	325	1	47	125	1	27	29	4	778



**Table 3.** Black Bear Mortality in New Mexico, 2014, New Mexico Department of Game and Fish.

Zone	Game Management Units	Sport Harvest			Depredation			Road Kill/Other			Totals
		Fem.	Male	Unk.	Fem.	Male	Unk.	Fem.	Male	Unk.	
1	4 - 7, 51, 52	44	85	1	1	2	0	0	0	0	133
2	2	2	3	0	0	0	0	0	0	0	5
3	48 - 50, 53	18	19	0	0	2	0	0	1	0	40
4	45, 46	20	21	0	1	3	0	1	5	0	51
5	54, 55	15	7	0	2	8	0	2	6	1	41
6	41 - 43, 47, 59	2	4	0	0	1	0	0	1	0	8
7	56, 57, 58	10	22	0	2	3	0	1	0	1	39
8	8	0	1	0	0	0	0	1	0	0	2
9	9, 10	12	6	0	0	2	0	2	2	3	27
10	12, 13, 15 - 18, 20 - 24, 26, 27	39	79	1	2	13	0	1	2	0	137
11	37, 38	5	11	0	0	0	0	0	1	0	17
12	34	13	8	0	1	1	0	1	1	1	26
13	36	5	12	0	1	4	0	0	0	0	22
14	14	5	5	0	0	0	0	0	0	1	11
		190	283	2	10	39	0	9	19	7	559

**Table 4.** Black Bear Mortality in New Mexico, 2015, New Mexico Department of Game and Fish.

Zone	Game Management Units	Sport Harvest			Depredation			Road Kill/Other			Totals
		Fem.	Male	Unk.	Fem.	Male	Unk.	Fem.	Male	Unk.	
1	4 - 7, 51, 52	59	82	0	4	4	1	1	4	0	155
2	2	4	3	0	0	0	0	0	0	0	7
3	48 - 50, 53	11	21	0	0	1	0	0	0	0	33
4	45, 46	9	17	0	0	0	0	0	4	0	30
5	54, 55	10	7	0	0	7	0	1	2	0	27
6	41 - 43, 47, 59	3	1	0	0	1	0	0	3	0	8
7	56, 57, 58	8	6	0	1	4	0	1	0	0	20
8	8	1	0	0	0	1	0	0	0	0	2
9	9, 10	9	7	0	1	1	0	0	2	0	20
10	12, 13, 15 - 18, 20 - 24, 26, 27	34	62	0	1	0	0	0	1	0	98
11	37, 38	8	8	0	0	0	0	0	0	0	16
12	34	8	20	0	0	1	0	0	0	0	29
13	36	5	5	0	2	3	0	1	0	0	16
14	14	0	5	0	2	0	0	0	0	0	7
		169	244	0	11	23	1	4	16	0	468

**Table 5.** Black Bear Mortality in New Mexico, 2016, New Mexico Department of Game and Fish.

Zone	Game Management Units	Sport Harvest			Depredation			Road Kill/Other			Totals
		Fem.	Male	Unk.	Fem.	Male	Unk.	Fem.	Male	Unk.	
1	4 - 7, 51, 52	43	95	0	4	7	0	3	1	0	153
2	2	4	3	0	1	0	0	0	0	0	8
3	48 - 50, 53	13	14	0	0	0	0	0	0	0	27
4	45, 46	13	8	0	0	5	0	0	1	0	27
5	54, 55	7	14	0	0	8	0	1	2	0	32
6	41 - 43, 47, 59	2	2	0	0	2	0	1	0	0	7
7	56, 57, 58	5	26	0	0	2	0	1	0	0	34
8	8	0	0	0	0	0	0	0	0	0	0
9	9, 10	10	8	0	1	3	2	1	0	0	25
10	12, 13, 15 - 18, 20 - 24, 26, 27	29	69	0	0	8	0	0	2	0	108
11	37, 38	9	8	0	1	0	0	0	0	0	18
12	34	8	22	0	2	1	0	0	0	0	33
13	36	5	11	0	0	3	0	0	0	0	19
14	14	6	4	0	0	0	0	0	0	0	10
		154	284	0	9	39	2	7	6	0	501

**Table 6.** Black Bear Mortality in New Mexico, 2017, New Mexico Department of Game and Fish.

Zone	Game Management Units	Sport Harvest			Depredation			Road Kill/Other			Totals
		Fem.	Male	Unk.	Fem.	Male	Unk.	Fem.	Male	Unk.	
1	4 - 7, 51, 52	25	45	0	1	7	1	3	6	1	89
2	2	4	12	0	0	3	0	1	3	0	23
3	48 - 50, 53	10	32	0	4	5	0	2	1	1	55
4	45, 46	18	21	0	4	3	0	1	4	0	51
5	54, 55	12	18	0	8	12	0	1	7	0	58
6	41 - 43, 47, 59	3	8	0	0	2	0	2	3	1	19
7	56, 57, 58	12	19	0	3	7	0	4	6	0	51
8	8	0	0	0	0	1	0	1	3	0	5
9	9, 10	8	8	0	0	1	0	0	1	0	18
10	12, 13, 15 - 18, 20 - 24, 26, 27	57	96	1	1	10	1	0	1	0	167
11	37, 38	6	16	0	0	0	0	0	0	0	22
12	34	13	16	1	0	1	0	0	0	0	31
13	36	2	11	0	0	4	0	0	0	0	17
14	14	8	4	0	2	4	0	0	0	0	18
		178	305	2	23	60	2	16	35	3	624

**Table 7. Black Bear Mortality in New Mexico, 2018, New Mexico Department of Game and Fish.**

Zone	Game Management Units	Sport Harvest			Depredation			Road Kill/Other			Totals
		Fem.	Male	Unk.	Fem.	Male	Unk.	Fem.	Male	Unk.	
1	4 - 7, 51, 52	44	77	0	4	6	0	0	2	0	133
2	2	1	4	0	0	0	0	0	0	0	5
3	48 - 50, 53	10	16	0	0	2	0	1	0	0	29
4	45, 46	20	30	0	3	8	0	3	3	1	68
5	54, 55	9	12	0	1	5	0	2	2	0	31
6	41 - 43, 47, 59	2	3	0	0	4	0	0	4	1	14
7	56, 57, 58	11	19	0	1	6	0	1	4	0	42
8	8	0	2	0	0	4	0	1	2	0	9
9	9, 10	8	12	0	0	1	0	0	1	0	22
10	12, 13, 15 - 18, 20 - 24, 26, 27	54	89	0	2	9	0	1	3	0	158
11	37, 38	8	13	0	0	1	0	0	0	0	22
12	34	13	19	0	3	5	0	0	1	0	41
13	36	4	9	0	0	0	0	0	0	0	13
14	14	4	3	0	0	3	0	2	0	0	12
None	GMU 32	0	0	0	0	0	0	0	1	0	1
		188	308	0	14	54	0	11	23	2	600

**Table 8. Black Bear Mortality in New Mexico, 2019, New Mexico Department of Game and Fish.**

Zone	Game Management Units	Sport Harvest			Depredation			Road Kill/Other			Totals
		Fem.	Male	Unk.	Fem.	Male	Unk.	Fem.	Male	Unk.	
1	4 - 7, 51, 52	46	60	0	1	3	0	1	1	0	111
2	2	3	2	0	1	0	0	0	0	0	6
3	48 - 50, 53	11	14	0	0	2	0	0	1	0	28
4	45, 46	18	29	0	0	5	0	1	2	0	55
5	54, 55	6	23	0	0	2	0	0	2	0	33
6	41 - 43, 47, 59	1	5	0	3	3	0	0	2	0	14
7	56, 57, 58	9	23	0	0	2	0	1	3	0	38
8	8	0	0	0	1	0	0	0	1	0	2
9	9, 10	5	6	0	0	0	0	0	2	0	13
10	12, 13, 15 - 18, 20 - 24, 26, 27	46	97	0	1	6	0	0	2	0	152
11	37, 38	7	12	0	0	1	0	1	0	0	21
12	34	12	18	0	0	0	0	0	1	0	31
13	36	4	5	0	0	5	0	0	0	0	14
14	14	3	4	0	1	3	0	0	0	0	11
		171	298	0	8	32	0	4	17	0	530

*Following is a sample Formative Assessment:*

Read “On the Revolution of the Heavenly Spheres” on page 480 of your textbook and write your initial discussion post before and your response posts before Midnight on Sunday (11:59pm).

Your initial post should contain the following:

1) In the first paragraph (of at least 4 sentences) Describe briefly what Copernicus did to research his idea of the Heliocentric (Sun-Centered) Universe. Who did he refer to and why? What did he get right about the model and what did he get wrong?

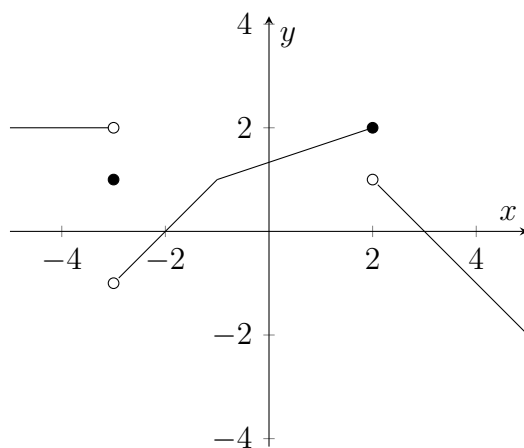
2) In the second paragraph (of at least 4 sentences) Describe something in the modern day that was a previously held, but incorrect idea that has been proven wrong and is now accepted as correct and normal by society.

S

This exam contains 3 pages and 12 problems. Check to see if any page or problem is/are missing. Show all your work for optimum grades.

1. Using this definition of  $f$  answer the following questions.

$$f(x) = \begin{cases} 2 & \text{if } x < -3; \\ 1 & \text{if } x = -3; \\ x + 2 & \text{if } -3 < x < -1; \\ \frac{1}{3}x + \frac{4}{3} & \text{if } -1 \leq x \leq 2; \\ -x + 3 & \text{if } x > 2. \end{cases}$$



1. What is  $\lim_{x \rightarrow 2^+} f(x)$ ?
2. What is  $\lim_{x \rightarrow 2^-} f(x)$ ?
3. What is  $\lim_{x \rightarrow 2} f(x)$ ?
4. What is  $f'(3)$ ?
5. What is  $\lim_{h \rightarrow 0} \frac{f(-2+h) - f(-2)}{h}$ ?
6. What are the numbers of the domain where  $f$  is not continuous?
7. What are the numbers of the domain where  $f$  does not have a derivative?
8. What is  $\int_{-2}^3 f(x) dx$ ?

2. Evaluate the following limits:

1.  $\lim_{x \rightarrow 3} \frac{x^2 - 9}{x - 3}$

2.  $\lim_{x \rightarrow \infty} \frac{1 + 10x + 14x^2}{\pi + 5x + 7x^2}$

3.  $\lim_{x \rightarrow 2} \frac{\sqrt{x+2} - 2}{x - 2}$

4.  $\lim_{x \rightarrow 0^+} (1 + 3x)^{\frac{1}{3x}}$

5.  $\lim_{x \rightarrow 0} \frac{1 - \cos(x)}{x^2}$

6.  $\lim_{x \rightarrow \infty} \frac{x^{100}}{2^x}$

3. For each function below find  $\frac{dy}{dx}$ :

1.  $f(x) = 2x^3 + 5x^2 - \frac{1}{x} + \frac{1}{x^3}$

2.  $y = \tan^{-1}(4x)$

3.  $y = 2^x + \ln(x^2)$

4.  $y = \log(\sin(x^3))$

4. Using implicit differentiation find  $y'$  where  $\cos(x + y) = x + y$ .

5. A rock tossed into a pond causes a circular ripple of water whose radius increases at a constant rate of 0.5 ft/s. How fast is the area contained inside of the ripple changing when the radius is 2 ft?

6. A closed box with a square base is to be built to house an ant colony. The box is constructed so that the length of one side of the base plus the height is 6 ft. What is the largest possible volume of such box?

7. Determine over which intervals the function  $f(x) = 3x^4 - 8x^3 - 18x^2$  is increasing, decreasing, concave up, and concave down.

8. Use Newton's method to find the first two iterations for the function  $y = x^3 + 1$ , given the starting point  $x_0 = 0.5$ .

9. Find the indefinite integrals below:

1.  $\int \frac{3x^4 - 2x + 1}{x^2} dx$

2.  $\int \sqrt{x} - \frac{1}{x^2} dx$

3.  $\int \frac{1}{\sqrt{1 - 9x^2}} dx$

4.  $\int \frac{\sin x - \cos x}{\sin x + \cos x} dx$

10. Using the definition of the definite integral evaluate  $\int_1^3 2x dx$  by taking the limit as  $n$  goes to infinity of the appropriate Riemann sum on partition  $x_i = 1 + i\Delta x$  with  $x_i^* = x_i$  and  $\Delta x = \frac{3-1}{n}$ .

11. Evaluate the following definite integrals:

1.  $\int_{-1}^1 f(x)dx$  where  $f(x) = \begin{cases} -x + 1 & \text{if } x \leq 0 \\ 2x^2 + 1 & \text{if } x > 0 \end{cases}$

2.  $\int_{-7}^7 (x^3 + x)dx$

3.  $\int_0^1 \frac{5x^2}{2x^3 + 1} dx$

12. Find the area bounded by the  $x$ -axis and the graph of  $f(x) = 2 + x - x^2$  over the interval  $[-1, 1]$ .

## **Assignment / MUSC 1110: Music Appreciation: Jazz**

### **JAZZ MONDAY SPECIAL PROJECT**

Listening Logs: Each student will be required to analyze assigned musical examples and keep an ongoing list of artists, composers, and ensembles representative of the various musical genres, styles, and historical periods discussed in class.

Topic areas to research: Things to discuss:

- Select a musical JAZZ topic (Period, subgenre, composer, form, etc.)
- Select an artist or ensemble which is representative of the topic area you selected above.
- Research that particular topic thoroughly
  - Define what it is.
  - Provide some biographical details on the life of the artist and or composer of the work(s) being presented to the class (Tell us their story)
  - Provide a representative sampling of the varying styles and or works by your particular artist or composer (Have at least three musical examples)
  - Address the issue of text: What's the meaning of the text? Is there a story behind the text? Is this a work without text? If so, what's the story behind the music? Is this an example of program music?
  - Discuss the function of the music. Was the music composed strictly for commercial use, or was it written for a higher purpose? (A personal story?)
  - Discuss its musical structure, form, traditions, instrumentation, and style (Ex. This work uses polyphonic textures throughout, etc.)
  - Address its social function and or role in society (is this an example of a protest song? A College Fight song? A wedding song, a funeral dirge?)
  - Discuss any significant events surrounding the development of the musical composition

Finally, provide any personal insight you wish to share on the piece



Current Score: 0/30

Question	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25		Total
Points	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/2	0/1	0/1	0/2	0/1	0/1	0/1	0/3	0/		0/30

1. 0/1 points

SerPSE10 1.1.OP.001. [4040108]

A standard 1 kilogram weight is a cylinder 46.0 mm in height and 40.0 mm in diameter. What is the density of the material?

 kg/m<sup>3</sup>

Need Help?

Read It

Watch It

2. 0/1 points

SerPSE10 1.1.P.003. [4038020]

Two spheres are cut from a certain uniform rock. One has radius 4.20 cm. The mass of the other is eight times greater. Find its radius.

 cm

Need Help?

Read It

Watch It

3. 0/1 points

SerPSE10 1.4.P.011.MI. [4038401]

A solid piece of lead has a mass of 39.60 g and a volume of 3.52 cm<sup>3</sup>. From these data, calculate the density of lead in SI units (kilograms per cubic meter).

 kg/m<sup>3</sup>

Need Help?

Read It

Master It

4. 0/1 points

SerPSE10 1.4.OP.009. [4040154]

Suppose your hair grows at the rate 1/31 in. per day. Find the rate at which it grows in nanometers per second. Because the distance between atoms in a molecule is on the order of 0.1 nm, your answer suggests how rapidly layers of atoms are assembled in this protein synthesis.

 nm/s

Need Help?

Read It

Watch It

- (a) A pyramid has a height of 539 ft and its base covers an area of 15.0 acres (see figure below). The volume of a pyramid is given by the expression

$$V = \frac{1}{3}Bh,$$

where  $B$  is the area of the base and  $h$  is the height. Find the volume of this pyramid in cubic meters.

(1 acre = 43,560 ft<sup>2</sup>)



(i)

m<sup>3</sup>

- (b) **What If?** If the height of the pyramid were increased to 580 ft and the height to base area ratio of the pyramid were kept constant, by what percentage would the volume of the pyramid increase?

%

Need Help?

Read It

Watch It

Assume it takes 5.00 min to fill a 25.0-gal gasoline tank. (1 U.S. gal = 231 in.<sup>3</sup>)

- (a) Calculate the rate at which the tank is filled in gallons per second.

gal/s

- (b) Calculate the rate at which the tank is filled in cubic meters per second.

m<sup>3</sup>/s

- (c) Determine the time interval, in hours, required to fill a 1.00-m<sup>3</sup> volume at the same rate. (1 U.S. gal = 231 in.<sup>3</sup>)

h

Need Help?

Read It

Watch It

7. 0/1 points

SerPSE10 1.4.OP.014.MI. [4040269]

A house is 53.0 ft long and 36.0 ft wide and has 8.0-ft-high ceilings. What is the volume of the interior of the house in cubic meters and cubic centimeters?

 m<sup>3</sup> cm<sup>3</sup>

Need Help?

Read It

Master It

8. 0/1 points

SerPSE10 1.4.P.015.MI. [4038091]

One gallon of paint (volume =  $3.78 \times 10^{-3} \text{ m}^3$ ) covers an area of 10.0 m<sup>2</sup>. What is the thickness of the fresh paint on the wall?

 m

Need Help?

Read It

Master It

9. 0/1 points

SerPSE10 1.4.P.016. [4038423]

An auditorium measures 30.0 m  $\times$  30.0 m  $\times$  7.0 m. The density of air is 1.20 kg/m<sup>3</sup>.

(a) What is the volume of the room in cubic feet?

 ft<sup>3</sup>

(b) What is the weight of air in the room in pounds?

 lb

Need Help?

Read It

Watch It

10. 0/1 points

SerPSE10 1.4.OP.015.MI. [4040131]

(a) Suppose the U.S. national debt is about \$15 trillion. If payments were made at the rate of \$3,000 per second, how many years would it take to pay off the debt, assuming no interest were charged? *Note:* Before doing these calculations, try to guess at the answers. You may be very surprised.

 yr

(b) A dollar bill is about 15.5 cm long. How many dollar bills attached end to end would it take to reach the Moon? The Earth-Moon distance is  $3.84 \times 10^8 \text{ m}$ .

 dollar bills

Need Help?

Read It

Master It

How many significant figures are in the following numbers?

(a)  $310.0 \pm 0.3$

(b)  $7.00 \times 10^{11}$

(c)  $4.00 \times 10^{-8}$

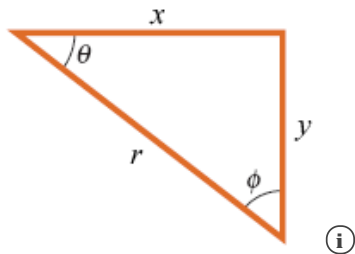
(d)  $0.0080$

Need Help?

Read It

Watch It

For the right triangle shown in the figure below, what are each of the following? (Let  $y = 4.40$  m and  $r = 5.50$  m.)



- (a) the length (in m) of the unknown side  $x$

 m

- (b) the tangent of  $\theta$

- (c) the sine of  $\phi$

- (d) **What if?** Keeping the length found in (a) fixed, by what factor would the length of the  $4.40$  m side have to be changed for the angles  $\theta$  and  $\phi$  to be equal? (Let  $y'$  be the new length of the  $4.40$  m side.)

$$\frac{y'}{y} = \text{  }$$

Need Help?

Read It

Master It

A high fountain of water is located at the center of a circular pool as shown in the figure below. A student walks around the pool and measures its circumference to be 20.2 m. Next, the student stands at the edge of the pool and uses a protractor to gauge the angle of elevation of the top of the fountain to be  $\phi = 54.0^\circ$ . How high is the fountain?

 m**Need Help?**[Read It](#)[Master It](#)

*This question has several parts that must be completed sequentially. If you skip a part of the question, you will not receive any points for the skipped part, and you will not be able to come back to the skipped part.*

#### Analysis Model Tutorial

A high fountain of water is located at the center of a circular pool as shown in the figure below. A student walks around the pool and measures its circumference to be 15.3 m. Next, the student stands at the edge of the pool and uses a protractor to gauge the angle of elevation of the top of the fountain to be  $\phi = 56.0^\circ$ . How high is the fountain?



#### Part 1 of 5 - Conceptualize:

The student cannot measure the height of the fountain directly, so he wishes to calculate the height using measurements that can be made from his position. We expect the result to be a few meters, based on the diagram accompanying the problem as well as everyday experiences with similar fountains in parks or plazas.

[Continue](#)**Need Help?**[Read It](#)

*This question has several parts that must be completed sequentially. If you skip a part of the question, you will not receive any points for the skipped part, and you will not be able to come back to the skipped part.*

### Analysis Model Tutorial

Assume there are 100 million passenger cars in the United States and the average fuel efficiency is 19 mi/gal of gasoline. If the average distance traveled by each car is 13,000 mi/yr, how much gasoline would be saved per year if average fuel efficiency could be increased to 26 mi/gal?

#### Part 1 of 5 - Conceptualize:

Increasing fuel efficiency from 19 mi/gal to 26 mi/gal may not sound like much for a single car, but suppose this were done on a national level. It will be interesting to find out how much gasoline would be saved in such a situation.

[Continue](#)

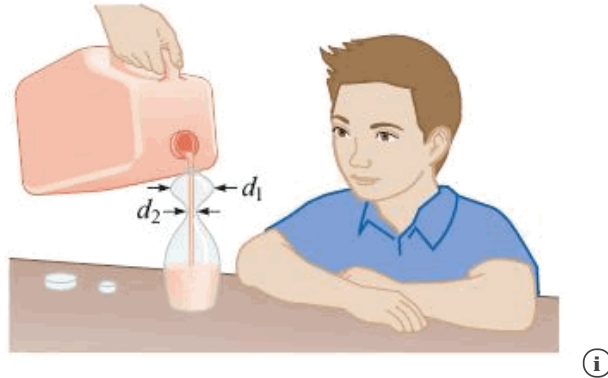
**Need Help?**

[Read It](#)

*This question has several parts that must be completed sequentially. If you skip a part of the question, you will not receive any points for the skipped part, and you will not be able to come back to the skipped part.*

### Analysis Model Tutorial

A child loves to watch as you fill a transparent plastic bottle with shampoo (figure below). Every horizontal cross section of the bottle is circular, but the diameters of the circles have different values. You pour the brightly colored shampoo into the bottle at a constant rate of  $16.0 \text{ cm}^3/\text{s}$ . At what rate is the level in the bottle rising at the following?



- (a) a point where the diameter of the bottle is  $d_1 = 7.50 \text{ cm}$
- (b) a point where the diameter is  $d_2 = 1.30 \text{ cm}$

#### Part 1 of 5 - Conceptualize:

The volume flow rate of shampoo into the bottle is constant. Let us imagine a given volume of shampoo having the shape of a disk whose volume is the product of a circular cross section of the bottle and the vertical thickness of the disk. The rate at which the level of shampoo in the bottle is rising is the same as the rate at which the vertical thickness of the disk is increasing. Because the volume is increasing at a constant rate, the level of shampoo will be increasing rapidly where the cross section of the bottle is small; the level will be increasing slowly where the cross section is large.

[Continue](#)**Need Help?**[Read It](#)

(a) Suppose that the displacement  $x$  of an object is related to time  $t$  according to the expression  $x = Bt^2$ . What are the dimensions of  $B$ ?

- ☐  $L/T^2$
- ☐  $\frac{\sqrt{L}}{T}$
- ☐  $L/T$
- ☐  $T^2/L$
- ☐  $L^2/L$
- ☐  $L \times T^2$

(b) Suppose the displacement  $x$  of another object is related to time  $t$  according to  $x = A \sin(2\pi ft)$ , where  $A$  and  $f$  are constants. What are the dimensions of  $A$ ? (*Hint: A trigonometric function appearing in an equation must be dimensionless.*)

- ☐  $L/T$
- ☐  $T/L$
- ☐  $L \times T$
- ☐  $T$
- ☐  $L$

Need Help?

Read It

Newton's law of universal gravitation can be expressed by the equation

$$F = G \frac{Mm}{r^2},$$

where  $F$  is the gravitational force,  $M$  and  $m$  are masses, and  $r$  is a length. Force has the SI units  $\text{kg} \cdot \text{m}/\text{s}^2$ . What are the SI units of the proportionality constant  $G$ ?

- ☐  $\frac{\text{m}^3}{\text{kg} \cdot \text{s}^2}$
- ☐  $\frac{\text{m}^2}{\text{kg} \cdot \text{s}^2}$
- ☐  $\frac{\text{m}^2}{\text{kg} \cdot \text{s}^3}$
- ☐  $\frac{\text{m}^3}{\text{kg} \cdot \text{s}^3}$

Need Help?

Read It



19. 0/1 points

SerCP11 1.3.P.001. [3752097]

The period of a simple pendulum, defined as the time necessary for one complete oscillation, is measured in time units and is given by

$$T = 2\pi\sqrt{\frac{\ell}{g}}$$

where  $\ell$  is the length of the pendulum and  $g$  is the acceleration due to gravity, in units of length divided by time squared. Show that this equation is dimensionally consistent. (You might want to check the formula using your keys at the end of a string and a stopwatch. Submit a file with a maximum size of 1 MB.)

No file chosen

**Need Help?**

20. 0/2 points

SerCP11 1.3.P.003. [3752070]

A shape that covers an area  $A$  and has a uniform height  $h$  has a volume  $V = Ah$ .

(a) Show that  $V = Ah$  is dimensionally correct. (Submit a file with a maximum size of 1 MB.)

No file chosen

(b) Show that the volumes of a cylinder and of a rectangular box can be written in the form  $V = Ah$ , identifying  $A$  in each case. (Note that  $A$ , sometimes called the "footprint" of the object, can have any shape and that the height can, in general, be replaced by the average thickness of the object. Submit a file with a maximum size of 1 MB.)

No file chosen

**Need Help?**

21. 0/1 points

SerCP11 1.5.P.017. [3775167]

The Roman cubitus is an ancient unit of measure equivalent to about 0.445 m. Convert the 2.09-m height of a basketball forward to cubiti.

cubiti

**Need Help?**

22. 0/1 points

SerCP11 1.5.P.018. [3775172]

A house is advertised as having 1560 square feet under roof. What is the area of this house in square meters?

m<sup>2</sup>

**Need Help?**

23. 0/1 points

SerCP11 1.5.P.021. [3752218]

A firkin is an old British unit of volume equal to 9 gallons. How many cubic meters are there in 8.44 firkins?

 m<sup>3</sup>

Need Help?

Read It

24. 0/3 points

SerCP11 1.5.P.022. [3752192]

Find the height or length of these natural wonders in kilometers, meters, and centimeters.

(a) a cave system with a mapped length of 337 miles

 km m cm

(b) a waterfall that drops 1,078.4 ft

 km m cm

(c) a 21,000 ft tall mountain

 km m cm

(d) a canyon with a depth of 67,400 ft

 km m cm

Need Help?

Read It

25. 0/1 points

SerCP11 1.5.P.024. [3752095]

A certain car has a fuel efficiency of 43.4 miles per gallon (mi/gal). Express this efficiency in kilometers per liter (km/L).

 km/L

Need Help?

Read It

26. 0/1 points

SerCP11 1.5.P.027. [3752558]

The speed of light is about  $3.00 \times 10^8$  m/s. Convert this figure to miles per hour.

 mi/h

Need Help?

Read It

Assignment Details

Name (AID): Chapter 1 Enhanced Assignment (14912585)

Submissions Allowed: 5

Category: Homework

Code:

Feedback Settings

Before due date

Question Score

Assignment Score

Locked: **Yes**  
Author: **Cogdill, Cory** ( [Cory.Cogdill@roswell.enmu.edu](mailto:Cory.Cogdill@roswell.enmu.edu) )  
Last Saved: **Aug 19, 2019 08:57 PM MDT**  
Permission: **Protected**  
Randomization: **Person**  
Which graded: **Last**

Publish Essay Scores  
Question Part Score  
Mark  
Add Practice Button  
Help/Hints  
Response  
Save Work  
After due date  
Question Score  
Assignment Score  
Publish Essay Scores  
Key  
Question Part Score  
Solution  
Mark  
Add Practice Button  
Help/Hints  
Response

**I. MULTIPLE CHOICE QUESTIONS. Choose the BEST answer. 2 points each.**

- \_\_\_\_\_ 1. The theoretical engine that operates in an ideal reversible cycle is called a/an  
(a) Carnot engine (b) Kelvin engine (c) Isothermal engine, (d) Adiabatic engine.
- \_\_\_\_\_ 2. A heat pump is basically (a) a heat engine operating normally (b) a Carnot engine (c) a heat engine operating in reverse (d) a violation of the Laws of Thermodynamics.
- \_\_\_\_\_ 3. The measure of disorder in systems is called (a) confusion index, (b) Isostacy, (c) entropy (d) statistics
- \_\_\_\_\_ 4. The formula used to describe basic wave properties is (a)  $f=v\lambda$ , (b)  $\lambda = fv$   
(c)  $\lambda = 2f/v$  (d)  $v = f\lambda$
- \_\_\_\_\_ 5. Two identical waves meet that are  $180^\circ$  out of phase. What occurs?  
a) Constructive interference b) Partial constructive interference, c) Destructive interference, d) Partial destructive interference.
- \_\_\_\_\_ 6. Longitudinal sound waves **below** the audible range of human hearing are called  
(a) ultrasonic waves, (b) infrasonic waves, (c) isosonic waves, (d) audible waves.
- \_\_\_\_\_ 7. Longitudinal sound waves **above** the audible range of human hearing are called  
(a) ultrasonic waves, (b) infrasonic waves, (c) isosonic waves, (d) audible waves.
- \_\_\_\_\_ 8. Longitudinal sound waves that lie within the audible range of human hearing are called (a) ultrasonic waves, (b) infrasonic waves, (c) isosonic waves, (d) audible waves.
- \_\_\_\_\_ 9. The relative intensity of a sound is called  
(a) decibel level, (b) threshold of pain (c) audibility factor (d) none of these.
- \_\_\_\_\_ 10. When a sound frequency increases while moving toward an observer, it is called  
(a) warp effect, (b) sonic distortion (c) Einstein effect, (d) Doppler effect.
- \_\_\_\_\_ 11. The structural failure of the Tacoma Narrows Bridge in 1940, was the result of

(a) a hurricane, (b) an earthquake, (c) a standing wave generated by wind (d) trucks.

\_\_\_\_\_ 12. The SI unit of charge is (a) the Coulomb, (b) The Farad, (c) the Ohm, (d) the proton.

\_\_\_\_\_ 13. Materials that allow charges to move freely in response to an electric field are called (a) semiconductors. (b) insulators, (c) conductors, (d) field enhancers.

\_\_\_\_\_ 14. Materials that do not allow charges to move freely in response to an electric field are called (a) semiconductors. (b) insulators, (c) conductors, (d) field enhancers.

\_\_\_\_\_ 15. What is the common “rule of thumb” for electric charges?  
(a) opposites attract, likes repel, (b) likes repel and opposites repel, (c) likes repel and opposites repel (d) all charges attract.

## **II. TRUE/FALSE QUESTIONS. 2 points each.**

\_\_\_\_\_ 16. All waves move at the speed of light,  $3 \times 10^9$  m/s.

\_\_\_\_\_ 17. Sound travels in longitudinal waves on Earth and in transverse waves in space.

\_\_\_\_\_ 18. Dog whistles generate ultrasonic waves inaudible to most human ears.

\_\_\_\_\_ 19. The speed of sound in air varies with temperature.

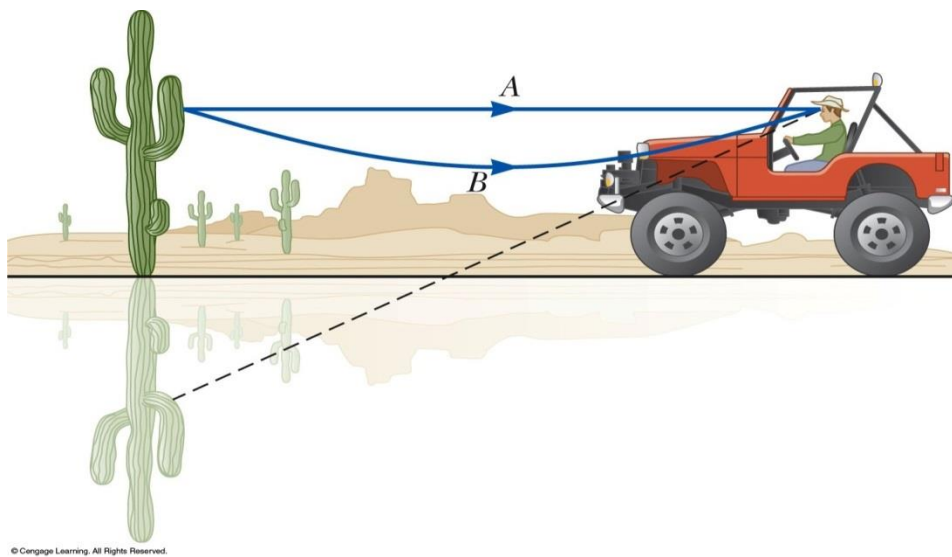
\_\_\_\_\_ 20. The change in pitch of a sound due to a moving sound source is called the Doppler Effect.

## **II. DISCUSSION QUESTIONS. 5 POINTS EACH. If you require additional space to write, there is a blank sheet attached to the end of the exam.**

21. Explain how the ear produces the sense of hearing.

22. Explain how a standing wave forms.

23. Refer to the diagram below and explain how a mirage can form. Why does ray B follow a curved path?

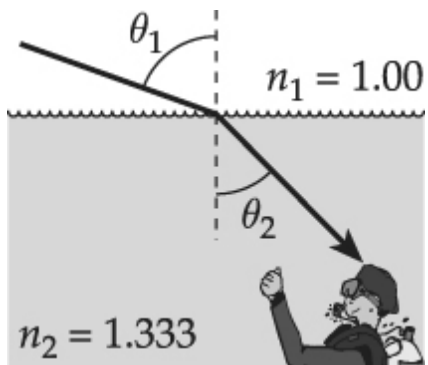


24. Explain the difference between nearsighted and farsighted vision. What types of lenses are used to correct each?

**III. CALCULATIONS. 9 points each.**

25. If an Atlantic croaker fish (*Micropogonias undulatus*) vibrates its swim bladder to make a sound level of 100 decibels, what is the intensity of the sound wave produced?

26. An underwater scuba diver sees the sun at an angle of  $40.0^\circ$  from the vertical. What is the actual direction of the sun?



27. A lens has a focal length of 18cm and a diameter of 4.0 cm. What is the  $f$ -number of the lens?

28. A patient can't see objects closer than 35.0 cm and wishes to see objects that are 20.0 cm from his eye.

a) Is the patient nearsighted or farsighted?

b) If the eye-lens distance is 2.00 cm, what is the minimum object distance  $p$  from the lens?

c) Calculate the required focal length.

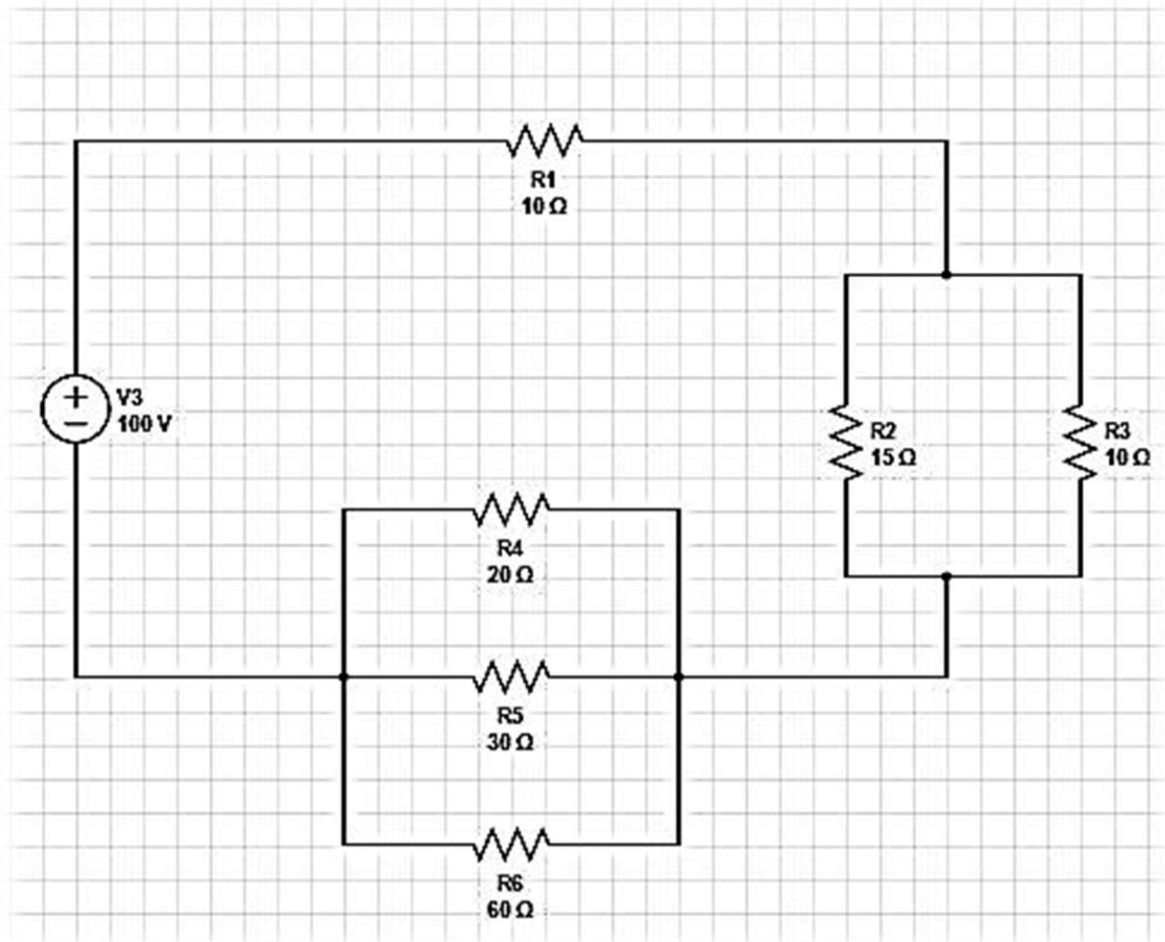
29. What is the maximum angular magnification of an eyeglass lens having a focal length of 23.0cm when used as a simple magnifier?

30. If a deer's eyes are most sensitive to light with a wavelength of  $4.50 \times 10^{-7}$  m. Find the frequency of this light wave.

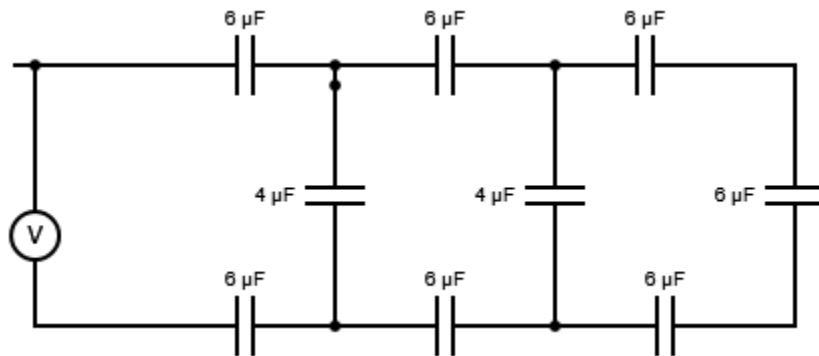
31. An F-15E Strike Eagle fighter plane is travelling at 10,000 feet altitude. The temperature of the air at this altitude is  $-40^{\circ}\text{C}$ . If the plane is travelling at 305 m/s, is it moving faster than the speed of sound?



32. Determine the equivalent resistance in the circuit below.



33. For the circuit below, find the equivalent capacitance.



34. Use Kirchoff's Rules to solve the following diagram.



# ARTS 1210 Color Theory I – Sample Assessment

## Complementary Contrast Assignment:

Create an original piece of art or design. Show evidence of the following four ways of including complementary contrast in your artwork or design.

- **Simple Color Contrast** (color against color, for example blue against orange)
- **Blending of two complements together** (shading a yellow banana by using purple mixed with yellow to create the shadow color.)
- **Enhancing** (adding the complementary color of an object, like an apple, near or around that object in order to enhance the color of the object. For example, you would do that by placing purple in the background of a yellow apple to enhance the color of the apple)
- **Transitional Colors** (using a range mix of colors that are transitioning from one complement to the other. A good way to add texture)

Once you have finished your image please write a short essay about your project. Include these topics; What is a complementary color, what is complementary contrast, and what are the four ways that you have used this contrast in your image. Include this with a picture of your image when you submit it to me.

Your grade will be based on whether you have included all four ways of using complementary contrast in your image and on whether you have answered requested topics in your essay. Please make sure you cover all four methods in both your image and your essay.

**Assessment for this assignment** will be based upon four criteria as seen in the rubric below.

1. Student must demonstrate an understanding of complementary colors both visually and textually.
2. Students display critical thinking skills while demonstrating the ability to use complementary contrast in four different ways within one image.
3. Display analytical skills by explaining the four different ways that complementary contrast has been used within their image.
4. Practice social responsibility by attending lectures, participating in class discussions and by giving constructive feedback to fellow students.
5. Critical thinking and personal responsibility will be taken as they craft their projects. Creativity, originality and effort should be evident in their work.

## Complementary Contrast Rubric:

Complementary contrast is one of the many elements of the subtractive color model and a basic element of color theory.

Essential Skills	Component Skill	Emerging (5pts)	Developing (10pts)	Proficient (15pts)	Total points:
<ul style="list-style-type: none"> <li>critical thinking</li> <li>communication</li> </ul>	<b>Demonstrate knowledge of topic visually.</b> Demonstrate an understanding of complementary colors by using them in an image. Display critical thinking skills by demonstrating the ability to use complementary contrast in four different ways within one image.	Student demonstrates only one technique for using complementary contrast in their image and/or fails to use complementary pairs correctly	Student creates an image that contains at least one pair of complementary colors, but fails to demonstrate all four techniques for using complementary in their image	Student creates an image that contains at least one or more pair of complementary colors. Student demonstrates all four techniques for using complementary in their image.	
<ul style="list-style-type: none"> <li>critical thinking</li> <li>communication</li> </ul>	<b>Demonstrate knowledge of topic textually.</b> Be able to define what complementary colors are. Display analytical skills by explaining the four different ways that complementary contrast has been used within their image.	Student attempts to define complementary color but doesn't succeed and is only able to explain one way that complementary contrast is used in their image	Student defines complementary color but cannot explain all four ways that complementary contrast is used in their image	Student defines complementary color adding original detailed explanations and is able explain all four ways that complementary contrast is used in their image.	
<ul style="list-style-type: none"> <li>Personal and Social Responsibility</li> </ul>	<b>Participation and Class Discussion</b> Attend class lectures, participate in class discussions by sharing constructive feed back and impressions of others work and have project turned in on time.	Student does not attend lecture, participate in class discussions and project is not turned in on time.	Student attends lecture but does not participate in class discussion. Project may or may not have been turned in on time.	Student attend lecture and participates fully in class discussions, giving constructive feedback to other students. Project is turned in on time.	
<ul style="list-style-type: none"> <li>Critical Thinking</li> <li>Personal and Social Responsibility</li> </ul>	<b>Craftsmanship</b> Apparent that care and effort is taken to complete the project. Responsibility and thought is put into coming up with an idea to build the project around.	Project is done quickly with little though. Little effort is put into creating an image and essay is poorly written.	Some effort is put into the project but there is little evidence of creativity. Project appears to be done at the last minute.	Much care has been taken to complete the project. Originality and creativity are apparent and the project is well executed.	

*Following is a sample Formative Assessment:*

View the following videos. Use them and your knowledge of History to answer the following questions for your discussion this week:

<https://www.youtube.com/watch?v=uZfRaWAtBVg> ("It's Too Late To Apologize: A Declaration-parody of "It's Too Late to Apologize by Timbaland featuring One Republic)

<https://www.youtube.com/watch?v=Rgiyq7rqWhg> ("You'll Be Back" -- the King's song from Hamilton)

In a paragraph of at least four sentences, describe each video's setting and context in United States History.

In a paragraph of at least four sentences, describe how the videos taken together, make the argument that the Declaration of Independence is like a break-up letter from the Colonies to England.

## Assignment / ENGL 2630: British Literature I

Read carefully through the following seven “Possible Thesis Statements” for an essay about Christopher Marlowe’s play, *The Tragical History of Doctor Faustus*.

Then, write a four-page essay in MLA format in which you argue for one of the seven thesis statements. You can either use the entire thesis statement that you choose word-by-word, or you could paraphrase it in your own words.

In order to help you think about the play more deeply, and to support your essay’s argument and credibility, you must incorporate at least one scholarly journal article into your essay. Use our library’s online databases to search for journal articles that discuss Marlowe’s *Doctor Faustus*, or a related issue in your essay, and find (at least) one to use in your own essay as a secondary source.

Since you are using MLA format for this essay, you’ll need to include MLA in-text citations and a Works Cited entry for the journal article and the play itself. Your textbook is an “anthology,” so when you’re looking up how to cite the play in your essay, look in a guide for the format to cite “a work in an anthology.” Also, be aware that your MLA Works Cited page does not count as one of your four required pages.

### *Possible Thesis Statements*

1. *Doctor Faustus* is the tragedy of a man who in striving boundlessly misdirects great gifts of mind and spirit and hence he progressively loses his soul by disintegration as well as by capture.
2. Marlowe’s *Faustus* is a martyr to everything that the Renaissance prized-- power, curious knowledge, enterprise, wealth, and beauty.
3. *Faustus* is no ordinary sinner, but rather an impenitent and willful miscreant.
4. The only knowledge which *Faustus* achieves is of the chimerical, of phantasm, of false shows and masquerades, of cheap tricks and dumb shows.
5. Marlowe’s play is primarily a study of the mind of *Faustus* himself: a psychomachia dramatizing the internal and simultaneously eternal battle between good and evil -- in *Faustus* and in all of us.
6. Instability is fundamental in *Doctor Faustus*, as a theme and as a characteristic of *Faustus* himself. *Doctor Faustus* is a play of violent contrasts within a rigorous structural unity. Hilarity and agony, seriousness and irresponsibility, the extremes of optimism and depression, enthusiasm and hatred, commitment to Hell and aspiration to Heaven, pride and shame --

these are the swings of the pendulum in Faustus' world.

7. The great reversal from the first scene of Doctor Faustus to the last can be defined in different ways: from presumption to despair, from doubt of the existence of hell to belief in the reality of nothing else, from a desire to be more than man to the recognition that he has excluded himself from the promise of redemption for all mankind in Christ, from haste to sign the bond to desire for delay when the moment comes to honor it, from aspiration to deity and omnipotence to longing for extinction.



# A Spill at Taos Ski Valley: Knee Injury and Recovery



---

## Part I – The Slopes

Megan was enjoying a pleasant day on the ski slopes at Taos Ski Valley. When she got on the lift to the top of Sangre de Cristo mountain (9,321 ft), the weather was fine—windy, but sunny. During the 5 or 10-minute ride, the weather changed suddenly; it became a white-out, with icy surface snow, blowing snow, a very strong wind, and extremely low visibility. Many people fell as they got off the lift, including Megan. However, she

got up and joined her family members as they stood, wondering just how they were going to get down the mountain. Meanwhile, the lift closed due to the terrible conditions (50-mile-an-hour wind and a temperature of  $-15^{\circ}$  F). As she adjusted her stance, Megan somehow twisted and fell again, which resulted in external rotation of her right knee. There was no pain at the time and she thought she could get up and prepare to get down the mountain, but her knee was too unstable. While she sat on the icy surface, her husband notified the lift operator to call the Ski Patrol. In about 20 minutes they arrived and put her on a sled, which they skied down the slope; when they reached the Ski Patrol headquarters, they transferred the sled to a snowmobile and promptly got her down the mountain and into the emergency room.

### Questions

1. What mechanisms did Megan's body employ to maintain homeostasis?
    - a. Where are the sensors for cold?
    - b. Where is the “thermostat” of the body located?
    - c. What is the effector (i.e., what tissues are involved) for the blood vessel constriction? For the shivering?
  2. What areas of the body would be the most vulnerable to frostbite?
-

## Part II –The Emergency Room

Paramedic and Ski Patrol member Mondo brought Megan into the emergency room and began to examine her. He quickly removed her ski boots, checked the dorsalis pedis pulse, and told her to take off her parka; an assistant brought blankets and hot chocolate. At that time Megan was not experiencing intense pain, but she was shivering uncontrollably. The pain was relatively localized to the medial surface of her right knee, and the knee was already considerably swollen. He indicated that there was probably damage to a ligament or two. Megan was then moved to a clinic for further evaluation.

### *Questions*

1. Why was Megan instructed to remove her parka?
  2. Why was she shivering?
  3. Why was the knee swollen?
  4. Where would the dorsalis pedis pulse be taken? Why?
  5. How do the bones that comprise the knee joint fit together?
  6. What structures are associated with the medial surface of the knee?
-

## Part III –The Clinic

In the clinic, Megan was examined by a nurse practitioner and sent for an X-ray, which showed swelling but no fracture. The nurse practitioner performed a Lachman test on Megan's knee; the results were so positive that they could be seen across the room. In fact, an orthopedic surgery resident was brought in so that he could feel and see firsthand the contrast between a positive Lachman test (on her right knee) and a negative test (on the left, uninjured knee). A positive Lachman is essentially diagnostic of complete rupture of the anterior cruciate ligament (ACL). Further examination confirmed injury to the medial collateral ligament. Megan was instructed to see an orthopedist at home and given crutches and a brace as well as some pain medication because her knee was not stable enough to walk and was beginning to hurt. In addition, she was told to keep her leg elevated and put ice on her knee—and definitely *not* use the hot tub.

### Questions

1. What type of injuries would be identified most clearly on an X-Ray? Why?
  2. What is a positive Lachman maneuver/test?
  3. What is the purpose of the leg elevation and ice? (Wasn't she already high enough and cold enough?)
  4. Why was she instructed *not* to use the hot tub?
-

## Part IV –Seeing the Orthopedic Surgeon #1

The day after she arrived home, Megan saw Dr. Scott. He ordered an MRI, which confirmed the injury. He suggested that she consider reconstructive surgery on her knee. While some patients elect to avoid surgery, they are at much higher risk of developing osteoarthritis earlier, and the instability of their knee makes them more likely to fall again. Thirty years ago most surgeons would not have suggested surgery for this injury, particularly in someone aged 55, and the surgical techniques were not as successful as they are now. Because Megan was a fairly active individual prior to the accident, Dr. Scott encouraged her to have reconstruction of the anterior cruciate ligament, and he referred her to another orthopedic surgeon who did that surgery on a routine basis.

### *Questions*

1. Why did Dr. Scott order an MRI?
  2. What difference does age make in terms of the healing process?
  3. What is osteoarthritis?
-

## Part V – Seeing the Orthopedic Surgeon #2

After viewing the MRI and talking with Megan, Dr. Leutz strongly advised her to have reconstructive surgery on the ACL and to use conservative therapy on the partially torn medial collateral ligament. First, though, he wanted her to “pre-hab”—that is, take physical therapy for several weeks—in order to have the knee and leg in the best possible shape before the surgery. She was also instructed to use a more substantial brace. Dr. Leutz described the procedure: either a cadaver tendon OR the middle third of her patellar tendon would be removed and used to replace the ACL, which would be removed. Megan opted to use her own tendon.

Five weeks later, Megan went in for surgery. She was given a drug used for conscious sedation as well as a general anesthetic. Through the arthroscope the surgeon noted significant injury to both the medial and lateral menisci, which he repaired with sutures and screws. The pieces of the torn ACL were removed. A superficial incision was made in the midline of her right knee and a piece of patellar tendon was removed, along with the attaching small pieces of bone to use for the grafting procedure. Unfortunately, when the piece of patellar bone was chiseled out, the patella itself fractured. The fracture was repaired with metal screws, the incision was closed, and Megan was discharged from the hospital.

### Questions

1. What are the primary movements of the knee joint?
2. What muscle groups are the most important in flexion and extension of the knee?
3. What happens to muscle and bone tissue when they are not used?
4. Why could a tendon be used to replace a ligament? *Hint:* think histology.
5. Consider the overall structure of the knee joint. (You may wish to draw a picture or label a diagram.) What type of membrane lines the joint? What is its function? Was it cut in any way during the surgery?
6. Of the structures injured (patella, MCL, ACL, menisci), which will heal the fastest? Why?
7. *Every* incision will form some sort of scar. What is the term for *scarring of a tissue*? What cell type is most important for scar formation?



---

## **Part VI – Resolution**

Physical therapy began two days after the surgery. With the aid of crutches, a wheelchair, and a brace, Megan was able to return to work in about ten days. She continued the physical therapy at the rehab clinic and on her own for six months. With the assistance of a titanium brace, she was able to play tennis nine months after the surgery. One year following the injury she went skiing again ... but did not venture up to the top of Taos Ski Valley.

---

## New Mexico Tech ARTH 2210

### Cradle Will Rock & Wizard of Oz Assignment:

(Critical Thinking, Personal & Social Responsibility, Communication)

**Note:** *Cradle Will Rock*, 1999/2000, (Dir: Tim Robbins) is rated R. If you are not 17 or older, you cannot watch the film. Contact me for an alternate assignment.

### YOU MUST WATCH THIS BEFORE TAKING YOUR QUIZ

For those 17 or older, you will need to purchase it to view. You can stream on Amazon for \$2.99. (HD is \$3.99).

**Information:** The film is fast-paced with lots of information about the 1930s that is an interesting way to get learn about the conflicts and tensions in the US and Europe during the Depression and pre-WWII. The time period the film covers is Fall 1936 to June 16, 1937.

- It starts right off with information scrolled with text and then that is being broadcast on the movie screen while homeless Olive Stanton is waking up inside the theater. Watch and listen closely.

While most of it is factual with actual historical figures depicted, there are some fictional characters as well, who serve to represent a variety of viewpoints.

1. I will have readings and viewings for you at the bottom of this page for you to read so you know who is historical and who is fictional. You can also do your own research on this. Do this research and readings and viewings I have provided before watching the film so that you have some context, as it is packed with information and fast-paced.

The director, Tim Robbins, did conflate the time to seem as though it all happened in the same year, when actually some things happened in different years, such as:



- Diego Rivera's mural at the Rockefeller Center was painted in 1933/34.
- Cradle Will Rock musical by Marc Blitzstein (Director Orson Wells; Producer John Houseman) was performed in 1937.
- National Director Hallie Flanagan of the Federal Theater Project (1935 - 1938) testified in 1938 to the Special Committee to Investigate Un-American Activities (precursor of House Un-American Activities Committee, HUAC) led by Texas Congressman Martin Dies, Jr.).

Notice socio-political aspects as well as cultural/ artistic aspects. Notice the emphasis on the steel industry, for example. And think about the importance of steel, at that time, to technology and war and weapons and war vehicles, etc.

### **1. Cradle Will Rock Assignment:**

You will put a total of at least 10 bullet points in your Discussion.

Put them under these labels:

**Aspects of film that relates to course material about art, culture, politics, or war.**

**You must find evidence of two modes of thinking: 1. hegemonic 2. pluralistic**

- . At least 5 bullet points about aspects of this film that relate to course material whether that be about art or culture or politics or war.
  - You must be specific to show you watched the film and that you are comprehending course material overall, from the beginning of the course until now.

**Aspects of time period film depicts that I didn't know or that I find interesting:**

- At least 5 bullet points of aspects about the time period you didn't know or find interesting or how you can see WWII looming with "deals behind the scenes" or in other ways.

### **2. Wizard of Oz Assignment: Reading Symbolically**

- Add to your bullet-point list 3 bullet points of how you see aspects of the film *The Wizard of Oz* (1939) of being symbolic for possible "messages" to the American audience. See paragraph below:

Either watch the 1939 film *Wizard of Oz* or review highlights of it through internet searches. It, too, shows some history, such as the Dust Bowl problem for US farmers. Think of the film as "symbolic" for messages to the US viewers. For example, consider how some images and information might be symbolic--yellow brick road that leads to Emerald City; wicked witch killed by twister; Professor Marvel; the fraud Wizard himself using technology to fool everyone of his greatness; the robotic man, the scarecrow, the cowardly lion. The messages repeatedly given to Dorothy, a young woman of the 1930s and the dawn of the 40s, such as "There's no place like home."

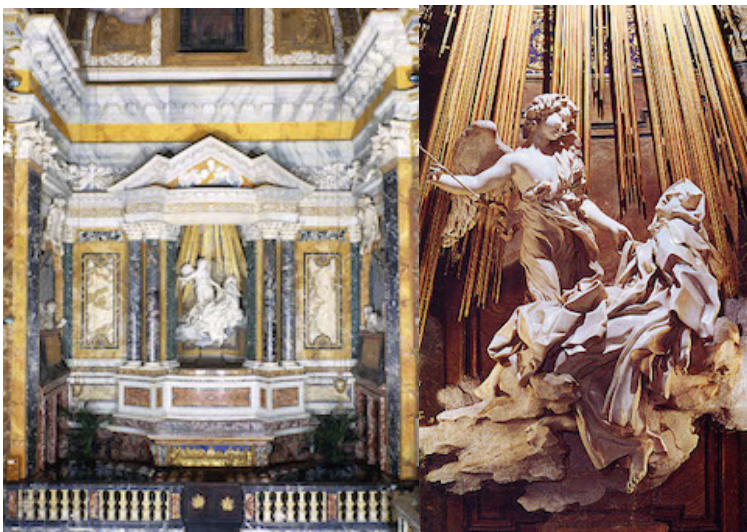
3. You must also comment **on at least 6** of your peers comments. (Not 3 this week, but 6.)

- State their name when you comment, so I can keep track of who you are responding to.

Part I: Images



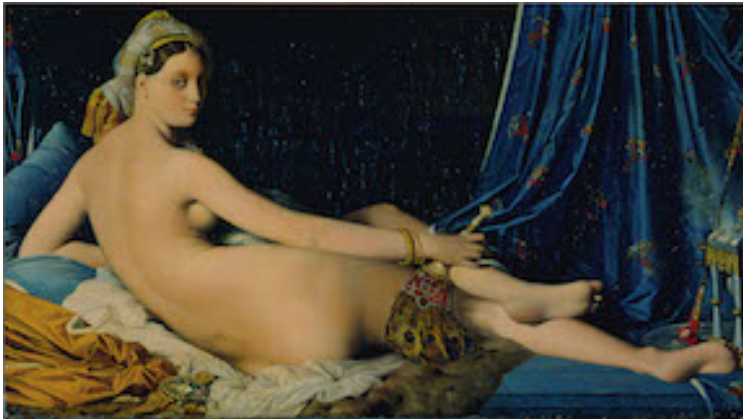
Slide 1.



Slide 2.



Slide 3. Choose one work of art to write on.



Slide 4.

### Part III: Essay Images



## SFCC ARTH 2120 History of Art II: Exam II

**Part I:** List the following information for each image and then write a short essay.

1. Artist 1 pt.
2. Title (with location, if applicable) 1 ½ pt.
3. Culture/artistic period 1 pt.
4. \*Extra Credit: Date (within 10 years) 1/2 pt.

The short essay is to include a **formal analysis** and **discussion of the significant aspects** of the work of art. (At least 5-6 full sentences.) 10 pt.

Suggested aspects to discuss:

- What is the *subject* and *function* of the work of art?
- What does the work tell us about the *culture* in which it was created?
- How might the subject *exemplify beliefs or themes* within the culture?
- How does it relate to other works of art in the development of a theme or style?

**Part II:** Vocabulary: 1) define the term and 2) provide a visual example (a work of art) that best describes the term. 4 pt.

still life  
tenebrism  
vanitas  
history painting  
painterly

**Part III:** Essay 28 pt.

List the **artist** and **title** of each image then begin your essay.

Based on the theme: **Painting Revolution**, discuss these two works of art as examples of the artist's commitment to *19th c political ideals in France* and *ground breaking approaches to painting*. Compare and contrast the subjects, formal elements, and style/movements employed in painting revolution.

This essay is worth 28 points, therefore develop and qualify your ideas in the discussion.



## SOCI 2310 Belief Systems

Personal lens and perspective depends on one's view of the world. Even if we "never really thought about it," we will be unable to articulate the nature of our lens. If we have thought about it, and meet with confusion or dismay at the choices we have been given, then like those new to contemplating ideology, we will have a somewhat open mind to new information. At a younger, less educated point, our only exposure to ideas may be those of family or church. As we mature, we gain snippets of understanding about what seems best for ourselves and world in terms of economics, politics and our individual lives. We have a vague understanding of some directions as problematic or beneficial, and without deeper understanding of consequences and factors, often our views lack nuance. Some have absolute clarity, gained through keen observation, intuition, reading, and their own moral compass.

Below are the links to several online "tests" that help to place our political, social, and economic views within a context of possibilities. Some you may have already done from the links in the module. Many use questions which are deliberately vague, tending to assess feelings and biases rather than specific policies. We may tend to overthink, "well, but not if X, but yes if Y." In that case, just give your instinctive first answer. Sometimes, terms or concept may seem foreign, so it's okay to open another window and google for additional information. You may want to PRINT SCREEN your results and paste them into a Word document for later comparisons.

Generally speaking, the best quizzes recognize that we may have economic or political opinions on a left-right spectrum. For instance, we may believe that a person has the right to profit without a cap on that profit. This belief has a choice on the left-right political spectrum, but a vertical axis of social beliefs will tell us what we believe a person should do with that profit. We may believe it should be used to alleviate poverty, or we may believe in unlimited accumulation.

These tests were posted in the module, but here are the links in case you didn't get to them. You can take as many as you like and choose the longer or shorter versions where available, but please take at least two. I took a few more than once, and each time, the results were slightly different. These are not the SATs, so let them just be an informational tool and don't stress. Once you've taken the quiz, read their explanations, look through their website for additional insights, and take some notes about the findings.

[Pew Research Religious Typology](#)  
[Pew Research Political Typology](#)

Provide a primary post and reply with substantive comments to at least TWO of your classmates. Remember to be respectful when replying to your classmates about their tests. Please discuss your findings as follows:

1. Your results are optional - you may choose to not to disclose the actual findings to the class.
2. However, did the results feel accurate in whole or in part?
3. Were you surprised by the results?

4. Are you comfortable with the findings, or are some disturbing?
5. Were there aspects of the results that you feel you would like to explore?
6. What changes would you make to these tools?

## Assignment 3

### Objectives, Actions, Tools, Impact: Analyzing a Hack

For your final project, you will write a **1000-1750-word report** where you will analyze a hacker/hacktivist action in terms of **Objectives, Actions, Tools, and Impact**.

You will select some hacker event, hacktivist action, or cyberattack. You will conduct research on this event/action/cyberattack, finding documents, news reports, posts, or videos related to this event. These documents might be produced by outside sources (i.e. scholars, news outlets, institutions) or the hackers themselves (i.e. manifestos, videos, site defacement messages, etc..). The event you choose cannot be one we have conducted an OATI analysis for in class or one you have previously done for an assignment.

Referencing and quoting these documents in your report, you will define the following elements of the attack/event/action:

- **Objective:** What was the broad, overall political, economic, military, technical goal of the hacker/hacktivist group?
- **Action:** What did the hacker(s)/hacktivist(s) do? What actions were taken in the event/action/attack?
- **Tools:** What technologies did the hackers/hacktivists use? How did they use (or misuse them)?
- **Impact:** What were the end results, long-term, short-term, or historical outcomes of the event/attack/action?

You will want to open your report with an **introduction** and a **thesis statement**. You will tie up your arguments with a brief **conclusion** that recaps what you have covered and your **thesis statement**. You will also want to offer **background** on your hacker/hacktivist/group.

As always, when you make **claims** about your event/action/attack, support your points with **evidence**. Cite or incorporate material effectively and clearly.

You are more than welcome to do this project as a **blog post or some other multimedia or online format** if you would like to integrate multimedia materials into your project.

#### Some tips:

- Not all hacker/hacktivist events/attacks/actions will have enough material available to clearly identify objectives, actions, tools, and impacts. If you find you are unable to locate documents that can help you define these elements of a hacking/hacktivist event, pick a different one.



- You have a broad variety of options for what to choose given the scope of this assignment. You are encouraged to consider what hacking or hacktivism is broadly and pick something that interests you.
- As always, remember to incorporate and work with quotes/cited material to prove your points. This makes your argument more compelling. Also remember to explain the logic behind how cited material proves your point. **Doing so is key to your success in this project.**

### **What will be due:**

**Workshop Draft:** This will be a *complete* first draft of your project. You must have it done by the class Workshop Day so you can share it with your classmates and they can offer you suggestions.

**Final Draft:** The final project. It will be a revised version the material you shared on Workshop Day. This is the draft I will grade.

### **Due Dates:**

**Workshop Draft: April 23**

**Final Draft: April 28**

### **How you will be evaluated:**

**Argument** - The effectiveness and thoroughness of your argument. How effectively you bring the reader to new realizations about your material and prove your points using quoted and cited material. I will consider:

- Are quotes integrated into the material effectively to prove points?
- Does the project persuasively explain how the logic behind the claims it makes, make effective connections between individual claim and evidence?
- Do claims and evidence persuasively demonstrate something new about the subject matter?

**Clarity / Organization** - How easy it is to read and understand your argument. How concise and effective you are at introducing material. I will consider:

- Are the introductory/concluding components effective and efficient in contextualizing, introducing, and exiting the body of the project?
- Is your writing clear and easy to follow at the sentence and paragraph level?

**Polish** - Issues with tone, formatting, or proofreading that impact the credibility of the assignment. I will look at:

- Is the tone appropriate to the assignment?
- Are there issues with spelling, proofreading, or formatting that lower the credibility of the assignment?

## Sample Discussions (submitted online)

**Discussion: Are Social Welfare Policies Important?** Please think about the social welfare policies that social workers were instrumental in creating you learned about from this week's chapter. Select at least two to three that you find most important, provide a brief description of what they are and why they are important in society today. (30 points)

**Discussion: Are Poverty & Crime Connected?** Social workers work with a great variety of people, but the vast majority of the people social workers help are those who are dis-empowered. Many of them are living in poverty or have had interaction with the criminal justice system. Please discuss these two problems, and if possible, think about the ways they might be connected. Justify any connections you identify (you can do this using statistics or research). (30 points)

**Discussion: Reflecting on Ethics.** For this discussion, spend a bit of time reflecting on your own personal ethics. If you had your own personal ethical code, what would your five most important personal ethical principles be? Briefly discuss why it is important to think about ethics. Do you find your personal ethics to be similar to the social work code of ethics, or different? (30 points)

Discussion Rubric				
Criteria	Ratings			Pts
This criterion is linked to a Learning Outcome Content	8.0 pts The discussion post addresses the topic in a meaningful and thoughtful way.	4.0 pts The discussion post addresses the topic in a basic and limited way.	0.0 pts The discussion post fails to address the topic.	8.0 pts
This criterion is linked to a Learning Outcome Technical Content	7.0 pts Post meets the 250 word criteria set forth in the topic.	4.0 pts Post does not meet the 250 word criteria set forth in the topic, but it is at least 175 words in length.	0.0 pts Post does not meet the 250 word criteria set forth in the topic. Minimal effort has been put forth.	7.0 pts
This criterion is linked to a Learning Outcome Technical mechanics	5.0 pts Post has been spell and grammar checked and checked for readability. Post is largely free from errors.	3.0 pts Post has been spell and grammar checked and checked for readability. Post contains many errors, however they do not impact readability or understanding.	0.0 pts Post has not been spell and grammar checked and checked for readability. Post contains multiple errors that impact meaning and or readability.	5.0 pts

Discussion Rubric				
Criteria	Ratings			Pts
This criterion is linked to a Learning Outcome Participation	10.0 pts Student has replied to peer(s) in a substantial and meaningful way. At least one reply is a minimum of 150 words in length.	5.0 pts Student has replied to peers in a brief, yet meaningful way, which has contributed to ongoing discussion. At least one reply is at least 125 words in length.	0.0 pts Student has not replied to peers, or has not replied in a meaningful way that has contributed to ongoing discussion. Reply is less than 115 words in length.	10.0 pts

### Service Learning Project Summary

At the conclusion of their project, students will create a project summary. The project summary should be a presentation or paper and should include all of the following items:

- A discussion of the project that was done
- The project's impact on the community
- The project's impact of the student
- The relationship between course material & the project
- Final thoughts about service learning as a way of learning in a more meaningful way

The Service Learning Project Summary should be one of the following:

- A paper of a minimum of 300 words (there is no maximum word count for this submission) in Microsoft Office Word uploaded to Canvas (pictures should be pasted in or added as attachments).
- A Microsoft PowerPoint presentation consisting of a minimum of 6 slides with included pictures & text (there is no maximum slide count for this submission). The PowerPoint should be uploaded to Canvas.
- Service Learning Project Summary

Service Learning Project Summary				
Criteria	Ratings			Pts
This criterion is linked to a Learning Outcome Discusses Project	20.0 pts Presentation or paper provides a clear and thorough discussion of the project that was done.	15.0 pts Presentation or paper provides an acceptable, but basic discussion of the project that was done.	10.0 pts Presentation or paper provides a very basic or limited discussion of the project that was done.	0.0 pts Presentation or paper does not provide an adequate discussion of the project that was done.

Sample Assessments: Communication

Service Learning Project Summary					
Criteria	Ratings				Pts
This criterion is linked to a Learning Outcome Impact on Community	20.0 pts Presentation or paper provides a clear and thorough discussion of the project's impact on the community.	15.0 pts Presentation or paper provides an acceptable, but basic discussion of the project's impact on the community.	10.0 pts Presentation or paper provides a very basic or limited discussion of the project's impact on the community.	0.0 pts Presentation or paper does not provide an adequate discussion of the project's impact on the community.	20.0 pts
This criterion is linked to a Learning Outcome Impact on Student	20.0 pts Presentation or paper provides a clear and thorough discussion of the project's impact on the student.	15.0 pts Presentation or paper provides an acceptable, but basic discussion of the project's impact on the student.	10.0 pts Presentation or paper provides a very basic or limited discussion of the project's impact on the student.	0.0 pts Presentation or paper does not provide an adequate discussion of the project's impact on the student.	20.0 pts
This criterion is linked to a Learning Outcome Relationship between SL & Course	20.0 pts Presentation or paper provides a clear and thorough discussion of the relationship between the service learning project & the course material.	15.0 pts Presentation or paper provides an acceptable, but basic discussion of the relationship between the service learning project & the course material.	10.0 pts Presentation or paper provides a very basic or limited discussion of the relationship between the service learning project & the course material.	0.0 pts Presentation or paper does not provide an adequate discussion of the relationship between the service learning project & the course material.	20.0 pts
This criterion is linked to a Learning Outcome Final Thoughts	10.0 pts Presentation or paper provides additional information or insight related to whether the student believes service learning is or is not a way to enhance learning & why.		0.0 pts Presentation or paper does not provide additional information or insight related to whether the student believes service learning is or is not a way to enhance learning & why.		10.0 pts
This criterion is linked to a Learning Outcome Technical-Scholarship	10.0 pts The presentation or paper meets or exceeds the minimum	6.0 pts The presentation or paper meets the minimum word count	4.0 pts The presentation or paper meets within 15 words or 1 slide of the minimum	0.0 pts The presentation or paper does not meet the minimum word count/ slide	10.0 pts

Sample Assessments: Communication

Service Learning Project Summary					
Criteria	Ratings				Pts
	word/slide count requirement. It has been proofread and spell checked. Submission demonstrates proficiency in writing.	requirement. It has been proofread and spell checked, though some errors are present. Submission demonstrates adequate writing skill.	requirement. Proofreading isn't evident, and there are many spelling, grammar, or other mistakes, though it is understandable. Submission demonstrates a need for improved writing skills.	requirement. OR Proofreading isn't evident, and there are very many spelling, grammar, or other mistakes, making the submission difficult to understand. Submission demonstrates inadequate writing skills.	
Total Points: 100.0					

***\* Also see evidence supplements for critical thinking & personal & social responsibility (Current events paper& rubric; Mine Vs. Ours Assignment & Rubric)***

## Cultural Diversity Assignment

**Cultural Diversity Assignment:** Students must expand their boundaries by putting themselves in a setting where they are the racial minority or in a situation in which they are unfamiliar. Prior to participating in this experience, students are to identify common stereotypes and prejudices often associated with this population group.

Students must attend by themselves (if it is safe to do so), observing their feelings, reactions, and experiences. Students are to identify stereotypes, prejudices, and differences in communication styles and cultures, which they observed or were the recipient. These identifications are to be written in an essay related to their experience. **100 points**

*\*Important Note! Students are to do something new, and not to write about a past experience! The goal is to intentionally expose yourself to a new cultural experience, and not to reflect on a past experience.*

Cultural Diversity Assignment Rubric (1)					
Criteria	Ratings				Pts
This criterion is linked to a Learning Outcome Paper Content	30.0 pts	24.0 pts	15.0 pts	0.0 pts	30.0 pts
	It is clearly evident that the student intentionally participated in an activity/event/situation where they were unfamiliar with the culture.	It is somewhat evident that the student intentionally participated in an activity/event/situation where they were unfamiliar with the culture.	A reader can infer that the student intentionally participated in an activity/event/situation where they were unfamiliar with the culture.	It is not evident that the student intentionally participated in an activity/event/situation where they were unfamiliar with the culture.	
This criterion is linked to a Learning Outcome Paper Content	30.0 pts	24.0 pts	15.0 pts	0.0 pts	30.0 pts
	Student identifies and clearly describes stereotypes and prejudices often associated with this group.	Student identifies and briefly describes stereotypes and prejudices often associated with this group.	Student vaguely identifies and/or vaguely describes stereotypes and prejudices often associated with this group.	Student does not identify or describes stereotypes and prejudices often associated with this group.	

Sample Assessments: Communication

This criterion is linked to a Learning Outcome Paper Content	30.0 pts The essay details the student's experience, paying attention to any stereotypes or prejudices of which they are the recipient. Student discusses their feelings related to the experience.	20.0 pts The essay provides discussion of the student's experience, paying attention to any stereotypes or prejudices of which they are the recipient, though the discussion is lacking in detail. Student discusses their feelings related to the experience.	0.0 pts The essay does not discuss the student's experience, paying attention to any stereotypes or prejudices of which they are the recipient. Student does not discuss their feelings related to the experience.	30.0 pts	
This criterion is linked to a Learning Outcome Technical Criteria	10.0 pts The paper is properly formatted, it has been proofread, and the paper is very well written with minimal errors in grammar, spelling, or word usage.	6.0 pts The paper is properly formatted, it has been proofread, and the paper is moderately well written with some avoidable errors in grammar, spelling, or word usage.	3.0 pts The paper is properly formatted, it has not been proofread, and the paper is written with multiple errors in grammar, spelling, or word usage.	0.0 pts The paper is not properly formatted, it has not been proofread, and the paper is very poorly written with multiple errors in grammar, spelling, or word usage.	10.0 pts
Total Points: 100.0					

## Scientific Reasoning Artifact

The Scientific Reasoning competency identifies whether or not you know how to apply the scientific method. The scientific method is the basis of scientific investigation and describes how scientists attempt to find the answers to questions that are of interest to them. See the [Scientific Method Handout](#) below to help clarify the steps involved in designing a research project using the scientific method.

### **Scientific Reasoning Artifact Directions<sup>1</sup>**

#### **What should I use as my scientific reasoning artifact?**

When deciding on what artifact to use to demonstrate your scientific reasoning skills, you will want to thoroughly review the Scientific Reasoning Rubric. A good choice of a scientific reasoning artifact would be one that fully incorporates all the following criteria. These criteria are also listed in the left hand column of the Scientific Reasoning Rubric:

- 1) Problem is recognized and investigative question is formulated.
- 2) Reasonable, testable hypothesis is presented.
- 3) Predication is formulated as logical consequence of the hypothesis.
- 4) Data/observations to test hypothesis are gathered or compiled.
- 5) Formulation of a conclusion.

A scientific reasoning artifact that incorporates all of the above mentioned criteria would most likely be some type of science-related research paper or project that involved using the scientific method.

#### **Could you explain in slightly more detail the 5 above mentioned criteria?**

The 5 criteria listed above would be graded as “excellent” if the scientific reasoning artifact addressed all the bullet points listed in the second column of the Scientific Reasoning Rubric.

If appropriate, you may want to consider using the same scientific reasoning artifact to address the writing and critical thinking artifacts. This is especially true with the critical thinking artifact since scientific reasoning incorporates the use of both the scientific method and critical thinking skills.

#### **What if I cannot find a suitable artifact?**

It is perfectly acceptable (and highly encourage) to revise and rework a scientific reasoning artifact that may not presently meet the characteristics of the “excellent” scale in order to improve the quality of the artifact. If you do not have an appropriate artifact, you can present an artifact that explains in detail all the steps involved in using the scientific method to research a question or problem. Give specific yet practical examples of each of the steps involved in the scientific method. You could also take a research

---

<sup>1</sup> You will also need to complete your Reflective Essay for this artifact.



article from a peer-reviewed research journal and discuss the steps the authors used to answer a question or address a problem.

**Where can I get help with this assignment?**

You can contact either the instructor of the course (see syllabus for contact information) or Dr. Axel Hungerbuehler at either 575.461.4413 x252 or [axelh@mesalands.edu](mailto:axelh@mesalands.edu) with any questions you may have. It is critical that you thoroughly review the Scientific Reasoning Rubric when trying to identify the criteria that make up an “excellent” scientific reasoning artifact.

## What's the scientific method?

The scientific method is the basis of scientific investigation and describes how scientists attempt to find the answer to questions that are of interest to them.

## How do I use the scientific method?

Simply stated, the scientific method is a series of steps that scientists follow when they're attempting to solve a problem/answer a question. Depending on the source, there are anywhere from five to eleven or more steps in the scientific method. However, all versions of the scientific method involve the scientist trying to solve the problem through experimentation to find an answer.

A ten-step version of the scientific method is as follows:

- **Problem Statement/Research Question/Purpose:** You've got a problem that you want to address or a question you want to answer. The purpose step in the scientific method is just a restatement of what you want to accomplish in order to address the problem or answer the question. What do you want to find out? What is your goal? You should state your purpose with a single written sentence.
- **Research and Observation:** This is the time to gather as much information as you can regarding your problem and/or question. This can be done by reviewing the peer-reviewed literature as it pertains to your specific problem/question and /or observing the phenomenon in question.
- **Hypothesis:** Based on your research and/or observations, make an "educated guess" as to the answer to your question. The hypothesis step is always written in the form

"If \_\_\_\_\_, then \_\_\_\_\_."

The blank after the "if" is called the **independent variable**. The independent variable is just whatever you are going to do to solve the problem.

The blank after "then" is the **dependent variable**. The dependent variable is what you think will happen when you do whatever the independent variable is.

For example, if your hypothesis is "If I take an iron supplement, my anemia will go away," your independent variable is "take an iron supplement" (this is what you do) and your dependent variable is "anemia will go away" (what happens as a result of your having done something).

- **Materials:** What do you need to have in order to see if your hypothesis is true? This part of the scientific method is a list of **everything** you need to do the experiment. Leave nothing out!
- **Procedure:** What are you going to do during this experiment? You should list **all the steps** that you will perform in this section. Even if it seems obvious, write it down. A good rule of thumb: If a six-year-old child can understand what you've written, then you've written it well. If they can't, then you need to go into more detail!
- **Experiment:** This is when you perform all the steps you outlined in the *Procedure* section using the exact *Materials* you previously identified.

- **Collect and Analyze the Results:** When you did the experiment, what happened? What did you see, hear, smell, etc? You should give a complete accounting of all data that you collected (sometimes this is referred to as the "Data" section). There's an old saying among scientists: "If you didn't write it down, then it didn't happen." Make sure you write **everything** down!
- **Discussion:** In this section you will discuss your results. You will want to discuss your results in the context of the research and observations you made prior to establishing your hypotheses.
- **Conclusion:** What do the results mean? Was your hypothesis correct? This section should be only one sentence long. For example, if you proved the hypothesis that "If I take an iron supplement, my anemia will go away," then the conclusion should be "I took an iron supplement, and my anemia went away." Don't make this any longer than it has to be!
- **Communicate Results:** If the results of your experiment are of interest to others, you should attempt to publish your research. This allows others to critically comment on your findings and/or reproduce the results of your experiment.

## **CHARACTERISTICS OF “GOOD” EXPERIMENTAL RESEARCH**

- 1) **Control Group**
  - A group of individuals similar in all possible respects to the experimental group except they do not receive the treatment.
    - Placebo: Inert, harmless medication given to provide comfort & hope.
- 2) **Experimental Group**
  - A group of individuals similar in all possible respects to the control group except they receive treatment.
- 3) **Large Sample Size**
  - To ensure that chance variation between groups does not influence results.
- 4) **Double-Blind Experiment**
  - Neither subjects nor experimenters know which group is control vs. experimental.
- 5) **Statistical Significance**
  - Determine that difference between groups is not due to chance.
- 6) **Reproducibility**
  - Has experiment been repeated with same results?
  - Can experiment be reproduced?
- 7) **Does the study appear in a peer-reviewed professional journal?**

*Experimental research can prove  
a cause-effect relationship*

## **EPIDEMIOLOGICAL RESEARCH**

- The study of large populations to determine relationships between 2 or more variables.
- Establishes relationship, NOT cause-effect.

## **COMM 1130 PERSUASIVE SPEECH GUIDELINES**

Scaffolding on the skills you acquired creating your Informative Speech, i.e.,

- critical thinking, including use of logic, inductive and deductive reasoning, and how to spot and avoid logical fallacies
- research skills, including evaluation using the CRAAP test and plagiarism and how to avoid it
- citation using MLA and oral citations to verbally document sources,
- strategies for development including comparison and contrast, cause and effect, classification, extended definition, illustration, description, and narration
- revision and editing

you will now have a proposition (thesis) and take a stand that you validate with evidence. Persuade your audience to do something or think a different way. You may wish to influence your audience's attitudes toward a current issue such as government policy or a particular cause. Or you may wish to influence your audience's actions, such as encouraging them to stop smoking, exercise more, recycle, etc. You may choose a question of fact, value, or policy. Controversial topics are encouraged but hate speech will not be tolerated. Consult your instructor if you have any questions whether your topic and how it is addressed crosses the line.

Review your text on persuasive speeches and be sure that you address each stage of the persuasive process: issue awareness, comprehension, acceptance, and integration.

Choose one of the organizational patterns from the text: Problem-Solution; Problem-Cause-Solution; Comparative Advantages; Monroe's Motivational Sequence. Your instructor may limit your choices in this regard.

Your choice of evidence must be both ethical and chosen to suit your particular audience. No lying with statistics and beware overly technical evidence that even someone in the field would have difficulty understanding.

Your instructor will let you know how long your speech should be and will also advise you when various stages of the process are due.

For more specifics, consult your instructor's Persuasive Speech grading sheet (below):

## **7-10 MINUTE PERSUASIVE SPEECH GRADING SHEET (100 points)**

Name: \_\_\_\_\_

Length: \_\_\_\_\_ Total points \_\_\_\_\_

### **EFFECTIVE INTRODUCTION (20 points)**

Opening caught audience's attention?

Clear thesis statement? (What's this speech about and what stand are you taking?)

Value statement that relates topic to audience? (Why should we care?)

Did the speaker establish personal and source credibility?

### **BODY (25 points)**

2 or 3 well-supported points, using relevant, sufficient evidence and fair emotional appeals? No logical fallacies?

Sources cited (oral footnotes)?

Did speaker define essential terms as needed?

Effective transitions between ideas? Well-organized?

Did speaker respectfully present and rebut opposing viewpoints?

### **CONCLUSION (15 points)**

Signaled?      Recapped/summarized?      Clear call to action?

### **PHYSICALITY (10 points)**

Eye contact    Apparel    Gestures    Movements    Posture

### **VOCAL LIFE (10 points)**

Volume    Pitch    Articulation    Nonverbals    Dynamism    Other

### **TIME ALLOCATION (5 points)**

**DETAILED OUTLINE showing strong preparation, strategy and WORKS CITED (5 points)**

**SPEAKING NOTES (5 points)**

**THOUGHTFUL EVALUATION (5 points)**

Sample Assessment Questions for Math 1110

Could be given as a discussion prompt, homework question or on an exam

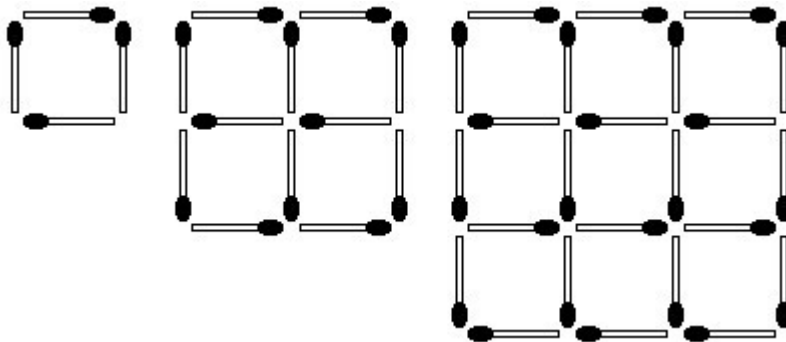
1. The flower peddler has red flowers with five petals each and white flowers with eight petals each. He has a total of 9 flowers with a total of 54 petals. How many red flowers are there and how many white flowers?

2. A collection of dimes is arranged in a triangular array with 16 coins in the base row, 15 in the next, 14 in the next, and so forth. Find the value of the collection.

3. Use sequence of equations to find the unknown sum.

$$\begin{aligned}1 &= 1 \\1 + 3 &= 4 \\1 + 3 + 5 &= 9 \\1 + 3 + 5 + 7 &= 16 \\&\dots\dots\dots \\1 + 3 + 5 + \dots + 201 &= ?\end{aligned}$$

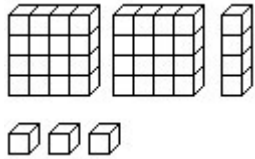
4. Consider the following  $1 \times 1$ ,  $2 \times 2$ , and  $3 \times 3$  matchstick designs.



How many matchsticks are needed for a  $12 \times 12$  design?

5. Convert the base-ten number to a number in the indicated base.  
503 to base five

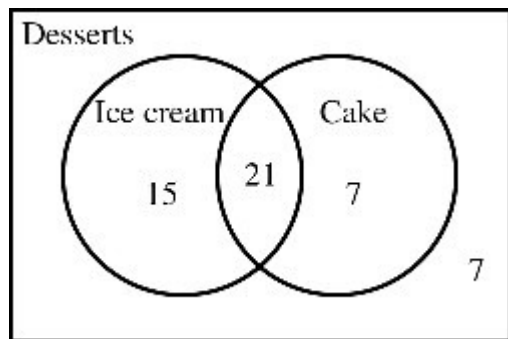
6. Write the base-four numeral for the base-four blocks shown.



7. Results of a survey of fifty students indicate that 30 like red jelly beans, 29 like green jelly beans, and 17 like both red and green jelly beans. How many of the students surveyed like neither red nor green jelly beans?

8. Mrs. Bollo's second grade class of thirty students conducted a pet ownership survey. Results of the survey indicate that 8 students own a cat, 15 students own a dog, and 5 students own both a cat and a dog. How many of the students surveyed own only a cat?

9. Use this Venn diagram, which describes the desserts people ordered at a party, to answer the following question How many people ordered ice cream but not cake?



10. Jennifer has a collection of marbles. She notices that if she borrows 7 marbles from a friend, then she can arrange the marbles in rows of 12 each. What is the remainder when she divides her original number of marbles by 12?

11. Jane has invited 200 people for a pizza party. If each pizza has 20 slices and she estimates that she needs 4 slices per person, then how many pizzas does she need to order?

12. Maggie bought 158 plants from the nursery, and she wants to plant 7 rows, each having 23 plants. However, after she starts placing the plants, she finds that she does not have enough. By how many did she fall short?

13. Perform the indicated operations in base 5.

$$12_5 + 14_5$$

$$24_5 \cdot 3_5$$

14. Use the scaffolding algorithm to perform the following division problem  $21 \overline{\sqrt{6273}}$

15. Use the lattice method to perform the following sum and product:

$$123 + 56$$

$$123 \times 56$$

16. Write a realistic story problem to represent  $5 \cdot (3 + 7)$

17. Make up a division story problem using the partitioning model. Use a diagram to illustrate your problem

18. Two runners run around a circular track. The first runner completes a lap in 4 minutes. The second runner completes the track in 15 minutes. If they both start at the same place and the same time and go in the same direction, after how many minutes will they meet again at the starting place?



19. Write the following as a sum using powers of 10 to show place value. 462.019

20. Jake correctly answered 15 out of 25 questions in Test 1 and 19 out of 25 questions the second Test. On Test 3 he missed 6 out of 27 questions. Which test had the best score?

21. A land developer wants to develop 20 acres of land. Each lot in the development is to be  $\frac{4}{5}$  of an acre. How many lots will the land developer have in the 20 acres?

22. What is the value of a fraction that is half-way between one-half and one-quarter?

23. Let's say your electric rate is 9.23 cents per kWatt-hour and you have 5 bulbs, each 100 watt lights that are on from 5 PM to 11 PM. How much do you pay per day for running these lights?

24. Solve the following problems. Explain how you know whether to multiply or divide and if dividing, which number was the divisor and which was the dividend.

a) If a motorcycle gets 40 mpg, how far will it travel on 0.8 gallon?

b) A piece of elastic can be stretched to 3.3 times its original length. When fully stretched, it is 13.9 meters long. What was its original length?

25. Sonya is a hard-working student who is not getting enough sleep. The following are her bedtimes for the week. On average, when did she go to bed?

10:20 PM    11:30 PM    11:40 PM    12:15 AM    1:20 AM

You are a lab assistant for the Chemistry Department and you are tasked to prepare the following solutions. Assume you have access to all of the various glassware, lab equipment and distilled water needed for your task.

Develop a protocol for preparing each of the following solutions from what is available in the stock room.

Each protocol MUST include the following information:

- Name of lab equipment
- Explanation of chemicals selected
- Calculations to indicate amount of solute needed (show your work!)
- Calculations to indicate amount of solvent needed (show your work!)
- Method of preparation (*ie, add solid to distilled water, dilute with 100-mL water*)
- Proper label information

**Needed Solutions**

- A. 250-mL 3.8 M  $\text{BaSO}_4$  solution
- B. 500-mL 5.0 M HCl
- C. 125-mL 1.5 M  $\text{NaHCO}_3$
- D. 75-mL 0.05 M  $\text{KMnO}_4$

**Available Chemicals In Stock Room**

Solid  $\text{BaSO}_4$

Solid  $\text{NaHCO}_3$

Solid  $\text{KMnO}_4$

1.0-L of 5.0 M  $\text{BaSO}_4$

1.5-L of 2.0 M  $\text{NaHCO}_3$

900-mL of 10.0 M HCl

750-mL of 12.0 M HCl

## Economic Geography

### Directions and Grading Rubric for Critical Analysis Papers

**Directions:** *Your paper should be divided into sections as follows. Include the title of each section.*

2 pt. **“Title”** – *based on your assessment not the title of the article.*

10 pts. **Economic Context** – What type of economics (subject)? Is the author valid? Where is it being written? *Include the short range objective from your syllabus that relates to the article and why.*

20 pts. **Thesis** – *Author’s thesis in your own words. (Identify and summarize the problem or question)*

26 pts. **Evidence to Support Thesis:**

1. *Include the author’s evidence (in quotes) then interpret (in your own words) how the evidence supports the author’s thesis.*
- 2.
- 3.

16 pts. **Conclusion** – *Author’s conclusion (deduction.) What did the author determine (in your own words)? Justify all key results and/or procedures.*

26 pts. **Thesis Assessment** – *Student states if they agree/don’t agree and why. Make and explain assumptions and reasons that lead to conclusions.*

**Grammar and spelling** – 1-3 mistakes (-3pts), 4-6 mistakes (-5pts), 7-10 mistakes (-10pts) 11+ mistakes (-25pts)

Paper should not be more than one page with one-inch margins. Font should be Times New Roman 12 point. Papers are due at the beginning of class on the due date.

**\*\*\*Papers must be submitted on Canvas. \*\*\***

**Your Name:**

**Section 1:**

**Source Evaluation for Article/Video**

What was the name of the article you read OR the video that you watched? Type it here:

<p>Summarize the article/video here. What were the main points? This section should be approximately 1-2 paragraphs.</p> <p><i>I want you to practice watching or reading something and being able to pull out the main points. This will also help you answer the rest of the questions by providing you a platform to use as examples for your statements below.</i></p>	
<p><b>Open-Ended Questions*</b></p> <p>Write an open-ended question in regard to the article/video. It can be an open-ended question that you feel was being answered by the video/article OR one that was sparked by the video/article and you would now like answered.</p> <p><i>You can create an opened ended question about something you would like to know more about from watching the video and/or reading the article. This is an essential critical thinking skill that will help you in your work after college.</i></p> <p><i>When coming up with a question, remember that it has to be open ended. That means that it cannot be a “yes/no” question or Do you like chocolate or vanilla ice cream. Instead, an open-ended question would be “What kind of ice cream do you like?”</i></p> <p><i>Chapter 2 of your textbook addresses these types of questions. If you are stuck, start your sentence with “why,” “how,” or “what.” Remember, your question CANNOT have a “yes/no” or similar type of answer; that would be a closed-ended question.</i></p>	
<p><b>Strategies for Understanding and Evaluating Messages**</b></p> <p>Address the delivery method of the article/video. Make sure to explore how the message would be different between print versus video.</p> <p><i>Think about how this information was delivered to you: print or video. Was that a good way for you to receive this information? If it was a video, think about the background images and the sound effects; how did they influence how the message was delivered. Think about the language used (in either print or video);</i></p>	

<p><i>was any of more inflammatory than necessary? Why would these things impact the message or argument of this specific article/video?</i></p>	
<p><b>Evaluation and Production of Arguments, Part 1**</b>          Did you feel that the author/speaker had “authority” over the topic? Why or why not. How did the authority or lack thereof impact your belief or understanding of the argument presented?  <i>For example, was the speaker/author an economist when talking about business OR was it a celebrity talking about human rights violations? This is <u>not</u> a question about the speaker’s tone or voice level. I want you to research and figure out if this person is an expert on this topic or a specialist. Do they have a degree in the topic they are addressing?</i></p>	
<p><b>Evaluation and Production of Arguments, Part 2**</b>          Did you feel that the claims by the author/speaker were supported? If yes, please give examples. If not, please identify how this lack influenced your belief of the speaker/author.  <i>For example, did they cite anything in the article or video? Did they reference any sources when addressing certain facts? If they didn’t cite anything, how did this impact the believability or “validity” of what they were saying? Did they say/write “millions of Americans love pink elephants” or did they say/write, “according to a study, millions of Americans love pink elephants” or did they say/write “According to a study by Harvard University, 30 million Americans love pink elephants” with Harvard University as a hyperlink to the actual study?</i></p> <p><i>Examples to compare for your video:</i>  <b>Claims by Speaker/Author Not Supported:</b> 8 out of 10 women will vote for the Bird Party.</p> <p><b>Claims by Speaker/Author Sort of Supported:</b> According to a study at Harvard University, 8 out of 10 women will vote for the Bird Party.</p> <p><b>Claims by Speaker/Author Supported:</b> According to the 2019 “Female Voting Trends” from <a href="#">Harvard University</a>, 8 out of 10 women will vote for the Bird Party.</p>	
<p><b>Evidence Evaluation*</b>          Please identify and describe at least 2 different solutions to the problem identified in this assignment. Each solution should be at</p>	

least 1 full paragraph (5 sentences) in length, but 2 paragraphs each is better.

*These solutions should be based on your evaluation of the materials included in the assignment, as well as using your prior knowledge (including but not limited to your newly gained knowledge from the applicable chapters).*

**\*: GEN ED Critical Thinking**

**\*\* : GEN ED Communication**

## **Writing About Film: A Critical Analysis of a Narrative Film**

How the audience views movies can be dramatically influenced by the tools and techniques which skilled cinematographers, directors, actors, and editors utilize to create movies. Whether through a narrative, documentary or experimental film the goal of filmmakers is usually to entertain the viewers through the storytelling device of visual media. In this assignment, you will be pulling together what you have learned about film forms and the elements involved in filmmaking to write a critical analysis of a narrative film. In essence you will be reviewing a film and analyzing what you see as the larger meaning of the film—is it a social, political, or an ideology that the director is trying to convey? This does not have to be more than it is in terms of context, you can speculate as well. Your papers need to have a clear introduction that informs the reader of what you are doing and why, a body that forms the analysis of the film, and a conclusion.

**Before you get started** there are several points that you will need to consider when analyzing film. The first is that movies move quickly from one scene to another and recording what you see can be difficult, so be ready to take notes before the movie begins. You should also be prepared to analyze one or two scenes in depth using terms and techniques that have been covered in our text, discussions, and quizzes. You may also need to watch the film more than once, and pausing to take notes would be ideal. When writing about a scene in the movie, you will need to include the elements of filmmaking used to emphasize meaning, and how this technique helps to determine what genre the film falls into. This analysis should be framed in a literary context, rather than from a personal standpoint, although personal responses and opinions matter. Some creative writing is expected here, so feel free to express yourselves so that the reader can visualize what you have viewed.

**Questions to consider when doing this analysis:** How did the movie make you feel? What did it make you think about? For example, if you were to write about how a horror film made you feel, you might ask why you are scared? Which elements of the film contribute most to your fear? How does the film play with the horror genre to evoke a fear that is fresh and convincing? Did the filmmaker use camera techniques or angles to add to that fear?

**Additional questions you may want to consider:** Does the film fit into a particular genre? In what way? Does the film fulfill your expectations about that genre or does it seem to work against some of the traditional conventions of the genre? In what way? What conventions of the genre does the movie place the greatest emphasis on? Themes? Characters? Setting? Iconographic imagery? The casting of well-known actors? Which conventions of the genre does the movie underplay or ignore?

**The format of your paper needs to be as follows: use 1- inch margins, Times New Roman font, 12-pt. Your written review should be 2 pages in length (no less than 500 words)** The link provided here gives the general layout of an essay for you to follow. \*

<https://writingcenter.fas.harvard.edu/pages/essay-structure>\*

**Choose from the list of films below for this critique or contact your instructor for preapproval of another film that you prefer to watch.**

- ***Juno***: (2007) Directed by Jason Reitman and written by Cody Diablo
- ***The Royal Tenenbaums***: (2001) Directed by Wes Anderson and co-written with Owen Wilson (\*Any film by Wes Anderson will work for this assignment)

- ***Goodfellas***: (1990) Directed by Martin Scorsese and written by Nicholas Pileggi and Scorsese
- ***The Godfather***: (1972) Directed by Francis Ford Coppola and written by Mario Puzo and Coppola.
- ***The Searchers***: (1956) Directed by John Ford
- ***Laurence of Arabia***: (1962) Directed by David Lean
- ***Star Wars***: (1977) Written and directed by George Lucas (\*Any of the Star Wars films will work here as well.)
- ***Three Billboards Outside Ebbing, Missouri***: (2017) Written and directed by Martin McDonagh
- ***Funny Girl***: (1968) Directed by William Wyler and written by Isobel Lennart

### Sources:

Gocsik, K., Barsam, R. and Monahan, D., 2013. *Writing about movies*. New York, N.Y.: W.W. Norton & Company.

Monahan, D., 2016. *Looking at Movies: An Introduction to Film*. 6th ed. New York.

Writingcenter.fas.harvard.edu. 2021. *Essay Structure*.

<https://writingcenter.fas.harvard.edu/pages/essay-structure> ( 22 March 2021).



## **Assignment / HIST 2110: Survey of New Mexico History**

**“Think Like A Historian” #1:** Click on the link and view the video. Locate an online academic article about the assignment topic.

**A. Submit to the instructor an assessment of your article’s validity by explaining how well its author does the following:**

1. Do the citations include primary sources (i.e. sources produced by participants in the events being studied)?
2. Do the citations include other secondary sources (i.e. publications produced by other historians)?
3. Is the author’s interpretation convincing in relation to use of primary and secondary sources?

**B. Write an essay which incorporates and cites the arguments presented in the videos and your chosen online article in which you answer these questions:**

1. Who were the Anasazi people and what were the main characteristics of their culture?
2. What evidence exists to explain how the Anasazi interacted with other societies?
3. What evidence and theories exist to explain the disappearance of the Anasazi people?
4. How do historians assess the significance and legacy of the Anasazi people?

- **Digging for the Truth (Anasazi):** <https://www.youtube.com/watch?v=W2sozEGYzt4>

Objective: Through this exercise you demonstrate the ability to synthesize and assess multiple sources of information, and express that understanding in a single coherent statement in an attempt to convince to a single reader (i.e. the instructor) about the strength of your position. Your goal is to convince that reader about the relative significance of a particular social, political, military, or economic subject under discussion (in other words, to “think like a historian”).

How to Submit: Submit your completed answer in the box that appears when you click on the “type submission” link under the “assignment submission” portion of the assignment description. DO NOT submit a saved document, as this creates too many potential “compatibility” problems between your preferred document format and the Blackboard system (which can only open documents saved in particular formats).

Assignment Criteria: The following criteria apply to your assignment answers.

- All assignment answers must be expressed in civil and professional language. Any abusive or other inappropriate expressions will not be tolerated and will result in actions to be determined by the instructor (including potential administrative withdrawal from the course).
- Each student will write their response to the question listed above.
- Properly cite page numbers from text (or any other source used to support your position) when using direct quotations or paraphrasing.

- Submit a fully developed thought in traditional essay structure (introduction, support, and conclusion) that explains why that idea, event or development is “more significant.”

You must develop the ability to support your position with factual material (not just unsupported personal opinion or “beliefs”). You will accomplish this through a detailed discussion of the specific characteristics that make your chosen subject “more significant” than the many other important subjects discussed in these chapters. The use of “compare and contrast” is a good method to begin such an assignment.

## **Assignment – ENGL 2310: Introduction to Creative Writing**

### **Final Portfolio**

Please create a collection of your revised work. You will also write a 2-3 page reflective essay as an “introduction.”

Portfolio: After considering the feedback you receive from workshop / peer comments and my comments, edit your pieces, hone them, treat them like plans you might want to change, like vacations that need new activities and better/different clothes. Apply the skills we’ve learned from our time together: vocabulary and tone, simile and figurative language, plot and organization, form and chaos, cultural sensitivity, audience, and style. Take your work to the writing center (if you like) or ask others to help you think about and edit your poems and stories. And then, turn in to me a copy of your best nonfiction essay, fiction essay, and one poem with a cover page and a two to three page reflective essay on your experience writing and editing.

Essay: In your essay, ask in a holistic way what did I learn? What changed? What poem/story/essay do I like the best and why—what worked well? How do you think about writing now—and before? What skills or habits have you adopted in your writing? What technologies impact your writing? What makes your writing successful, and what areas still need sharpening? What cultures have I learned from, and what identities do I represent in my writing? What audience would most be electrified by my writing? What writers or stories/poems impacted you the most? You will likely want to include quotations from other writers, your text, or critical essays. Be honest and be thoughtful. I’m interested in an organized, fresh reflection on how our time together has shaped your writing.

Presentation: Please prepare a fifteen minute presentation of your final portfolio on PowerPoint, Prezi, or some other platform; include images, sound, film clips, and any other “rich” details to make your presentation as clever, imaginative, and creative as your writing.

## ARTH1115 – Critique Paper – Student Name

The art piece that you select needs to be from one of the eras, or regions, discussed in the textbook. The following are the Structural Elements to be contained within the paper, Format of the paper, and Grading Considerations:

### **Structural Elements:**

#### **Get the Facts (0-5 Points):**

Name of the artist, title, date, subject matter, medium, size and location of the work.

#### **Analyze (0-15 Points):**

Review the parts of the art piece and how they fit together esthetically. Consider the medium and how it generally contributes to the work and how it influences the expression of the content/subject. Define how the piece fits into the time period in which it was created, or does it brandish the pathway for a new movement. Does the art piece constitute the apex of the artist's career?

#### **Evaluate (0-15 Points):**

Discuss the composition of the work (use appropriate art composition terms) and how the artist may have been influenced by earlier works of other artists, mentors, or schools of art. Emphasize how the elements of the composition come together to create the visual experience (Utilize "Seven Key Principles of Design", "Visual Balance" and "Four Color Principles" in CH4).

#### **Personal Opinion (0-15 Points):**

Provide your opinion and impression of the piece. What are your "Likes" and/or "Dislikes" and what were the reasons that you selected the piece for your critique. Support your opinion utilizing terminology and understanding of art gleaned from information covered in this course.

### **Format:**

- Papers will be at least 1 page in length, but not more than 2, with a minimum of two reputable sources recorded in an APA format (References will be appropriately sited throughout the paper). Papers will be single-spaced in a block format; single space between paragraphs; Garamond-12 font; and 1" margins on all sides
- A 5" x 5", or larger, picture of the art work on a separate page (resources can also be contained on this page)
- **Must be proofed at the "Writing Lab" prior to submission or they will receive a "0" grade**

### **Grading Considerations:**

- Accuracy of the content and connectivity of the art work to the artist, era and/or culture
- Support of your opinion of the art work – Beyond "I like it"
- Readability of paper – No fragments; run on sentences; or unsupported pathways to nowhere
- Following defined Format and site source quotes and concepts appropriately within the paper
- Composition, spelling, punctuation or other general errors.

## Essential Elements:

1. The student will be able to identify elements of art and principles of design in the art work selected.
2. The student will be able to articulate the relationship of art to the human experience.
3. The student will be able to write and discuss critically using the vocabulary of art in the final paper.
4. The student will be able to interpret art within cultural, social, personal, and historical contexts in the text
5. The student will be able to critically analyze the art work selected.

Points Range	% Range	Grade
50 – 45	100% - 90%	A
44.5 – 40	89% - 80%	B
39.5 – 35	79% - 70%	C
34.5 – 30	69% - 60%	D

## **Exercise 1**      **The Earth System and Sustainability**

**James S. Reichard**  
**Georgia Southern University**

**Student Name** \_\_\_\_\_

**Section** \_\_\_\_\_

### **In this lab you will:**

- 1) Explore the way human population grows exponentially.
- 2) Examine how population growth is related to resource depletion.
- 3) Calculate your personal ecological footprint on planet Earth. From this you can see why our present consumption patterns and population growth are not sustainable in terms of the human impact on the biosphere.

### **Background Reading and Needed Supplies**

Prior to doing this exercise you should read Chapter 1, *Humans and the Geologic Environment*, in the textbook. With respect to supplies, the only thing you will need is a calculator.

### **Part I – Exponential Growth**

In this section you will use hand calculations to examine how living organisms undergo exponential population growth. We will use a hypothetical example where you are given 2 rabbits which you are to breed. You place them in a large fenced-in area and give them an unlimited supply of food and water. During your breeding project the rabbits multiple at a net rate of 50% per year (75% reproduction rate minus 25% mortality). This scenario and these rates are not realistic, but then neither is you breeding rabbits!

Exponential growth can easily be calculated by use the following relationship:

$$\text{new total} = \text{old total} + (\text{old total} \times \text{growth rate})$$

(or)

$$\text{new total} = \text{old total} \times (1.0 + \text{growth rate})$$

1) Use the above relationship to calculate the rabbit population and yearly increase for each time interval in Table 1.1. For example, to find the number of rabbits at the end of the first year, simply take the number of rabbits we started with (2), and multiple by 1.50 (i.e., 1.0 + 0.50 growth rate). The entry for year-1 would be as follows:

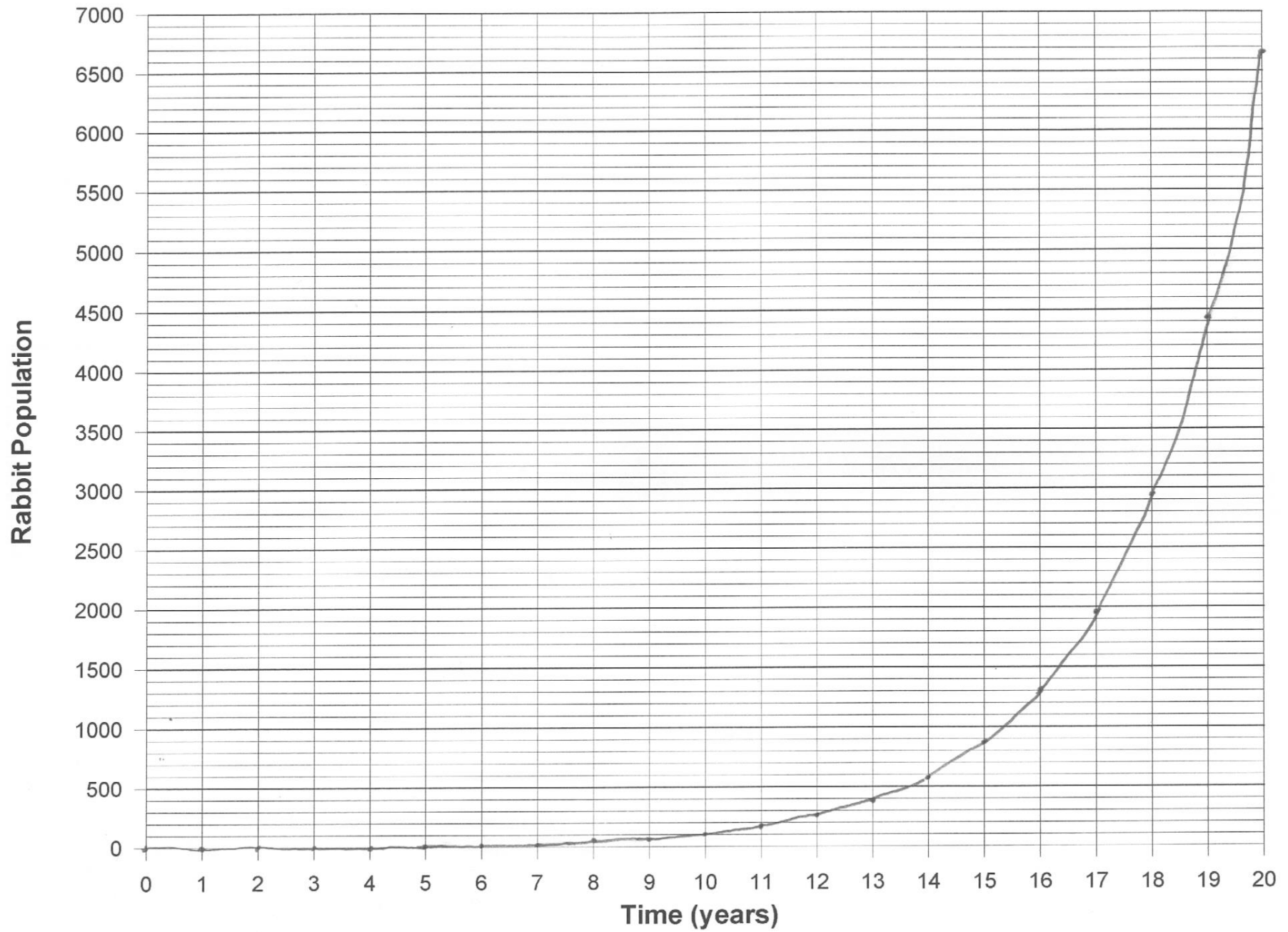
$$2 \text{ rabbits} \times 1.50 = 3 \text{ rabbits; an increase of 1 rabbit.}$$

When completing the table, be sure to round all your answers to the 2<sup>nd</sup> decimal place – just follow the examples in the first three rows of the table. Note that you will use the rounded population value at the end of a given year as the beginning population for the next year.

Time (Year)	Beginning Population	Ending Population	Yearly Increase
1	2.00	3.00	1.00
2	3.00	4.50	1.50
3	4.50	6.75	2.25
4	6.75	10.13	3.38
5	10.13	15.20	5.07
6	15.20	22.80	7.60
7	22.80	34.20	11.40
8	34.20	51.30	17.10
9	51.30	76.95	26.65
10	76.95	115.43	38.48
11	115.43	173.15	57.72
12	173.15	259.73	86.56
13	259.73	389.60	129.87
14	389.60	584.40	194.80
15	584.40	876.60	292.20
16	876.60	1314.90	438.30
17	1314.90	1972.35	657.45
18	1972.35	2958.53	986.18
19	2958.53	4437.80	1479.27
20	4437.80	6656.70	2218.90

**Table 1.1**

2) Using the provided graph paper, accurately plot the number of rabbits at the end of each year from Table 1.1 versus time. Then, draw a smooth curve through the points.





3) Based on the shape of your graph, it should be clear that the rabbit population grows in a non-linear (exponential) manner.

a) Describe the trend you see in the yearly increase column of Table 1.1 that proves the rabbit population grew exponentially.

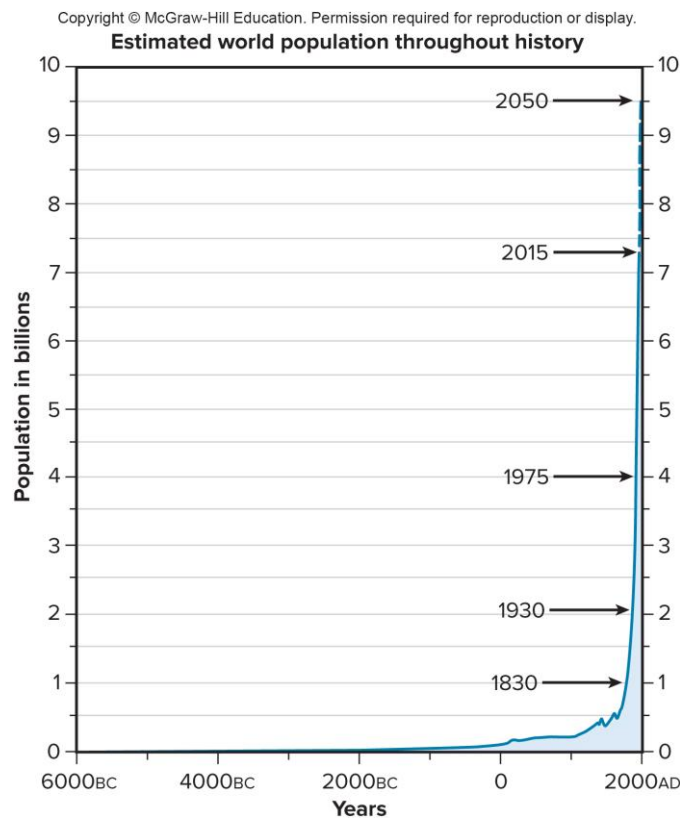
The yearly increase keeps getting larger for each time step (i.e., one year), which means the slope is constantly increasing with time.

b) In simple terms, explain why exponential growth occurs in natural organisms.

The organism reproduce at a faster rate than they die, hence the growth rate is positive. Because the population is growing, when one takes a percentage of a growing total, the amount added each year keeps getting larger.

4) The graph of human population in Figure 1.1 shows the population growth on planet Earth over the past 8,000 years. Up until the 1700s, growth rate had been fairly slow, but afterwards, the rate greatly accelerated. Describe the change in society that occurred around this time that can account for more rapid population growth.

Around the 1700s the industrial revolution brought about increased rates of food production, and at the same time, significant advances in medicine were taking place. These improvements decreased the death rate while the birth rate remained steady, thereby increasing in the growth rate.



**Figure 1.1.** Graph showing world population growth over the past 8,000 years. (rei22967\_01\_20)

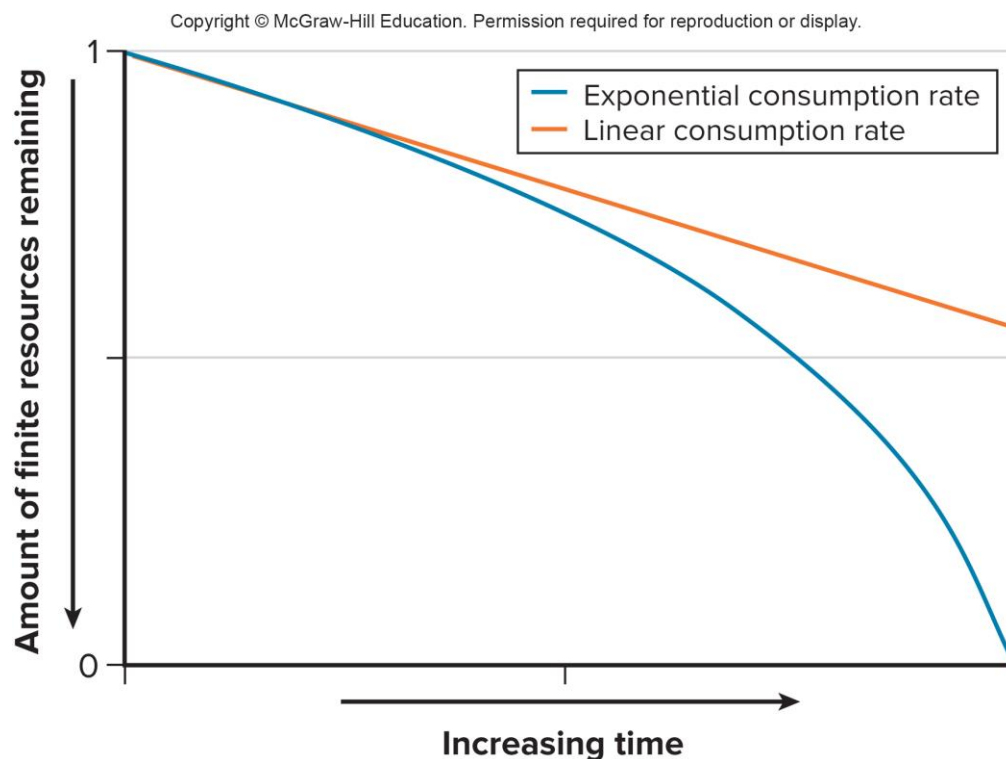
Copyright © McGraw-Hill Education. Permission required for reproduction or display.

- 5) Ever since the industrial revolution began, some people have been predicting that Earth's human population can continue to expand exponentially. Describe the major factor that environmentalists believe will ultimately limit population growth.

Because Earth's natural resources (soil, water, petroleum, etc.) are limited, food production can not increase indefinitely. Population naturally can not expand beyond its resource base.

- 6) As shown in Figure 1.2., because human population continues to expand, Earth's finite resources are naturally being depleted at an exponential rate. One reason for the exponential depletion rate is that population is increasing exponentially. Describe another factor (related to industrialization) that is causing resources to become depleted exponentially.

As nations undergo industrialization, their per-capita consumption rates increase, which of course only accelerates resource depletion.



**Figure 1.2.** Graph comparing linear versus exponential consumption rates. (rei22967\_01\_27)

- 7) Because of resource depletion, continued population growth and industrialization will make it difficult for developed nations to maintain the current state of their economies. What is the solution to this problem as described by environmentalists?

Human population must reach a limit and consume resources in such a manner that society is *sustainable*. Here society would live within the Earth system's ability to provide natural resources so that the resources remain available for future generations.

## **Part II – Ecological Footprint**

*The ecological footprint calculator used in this section is modified from that prepared by Lamont C. Hempel and Jason Venetoulis (1999).*

In the previous section we explored how population growth is a function of Earth's ability to provide natural resources. The term *sustainable society* is commonly used to refer to the ideal situation where humans live within Earth's capacity to provide resources, such that the resources remain available for future generations. In order for society to become sustainable, human population will need to level out, and our per capita consumption of resources will need to be reduced. One way we can gauge our level of sustainability is through the concept of an **ecological footprint**, which is simply the amount of *biologically productive* land/sea area needed to support the lifestyle of humans. The idea behind an ecological footprint is that every human requires a certain portion of the biosphere for extracting the resources they use and for absorbing the waste they generate.

In this exercise you will calculate you own personal ecological footprint. We will compare your footprint to what is called the *Fair Earthshare*, or FES, which is calculated by dividing Earth's ecologically productive land area by total human population. Since the land is divided equally, the FES represents how much of the planets productive land area is available to support each and every person. The FES is about 5.5 acres per person, whereas the ecological footprint of the average American is about 24 acres per person. Clearly, people in developed countries are using a disproportionately large amount of productive land compared to those living in less developed nations. In other words, many of us are using more than our fair share.

8) Use the ecological calculator below to determine your own ecological footprint. Begin by estimating your consumption rates for each category, then multiple your answer by the given multiplication factor. *(Note that the "unitless" numbers below represent different weighting factors that ultimately convert each commodity/activity into ecologically productive acres of land area per person.)*

Vegetables: US average is 5 pounds per week; a typical serving is about 4 ounces (USDA).  
(example: 3 servings/day x 4 oz/serving x 0.063 lb/oz x 7 days/week = 5.3 lbs/week)  
Enter amount\_\_\_\_\_ lbs. x 23 = \_\_\_\_\_

Fruits: US average is 2.5 pounds per week; a typical serving is about 3 ounces (USDA).  
(example: 2 servings/day x 3 oz/serving x 0.063 lb/oz x 7 days/week = 2.6 lbs/week)  
Enter amount\_\_\_\_\_ lbs. x 23 = \_\_\_\_\_

Pasta: a typical serving is about 4 ounces  
(example: 2 servings/week x 4 oz/serving x 1lb/16 oz = 0.5 lbs/week)  
Enter amount\_\_\_\_\_ lbs. x 70= \_\_\_\_\_

Chicken: US average is about 1.25pounds per person per week (USDA)  
Enter amount\_\_\_\_\_ lbs. x 500= \_\_\_\_\_

Pork: US average is about 1 pound per person per week (USDA)  
Enter amount\_\_\_\_\_ lbs. x 700= \_\_\_\_\_

Fish: US average is about 1/3 (.33) pounds per person per week (USDA)  
Enter amount\_\_\_\_\_ lbs. x 3200= \_\_\_\_\_

Beef: US average is about 1.5 pounds per person per week (USDA)

Enter amount \_\_\_\_\_ lbs. x 6000= \_\_\_\_\_

Cheese and Butter: Estimated average of 1/2 pound per person per week

Enter amount \_\_\_\_\_ lbs. x 250= \_\_\_\_\_

Eggs: Estimated average is 5 per person per week

Enter amount \_\_\_\_\_ lbs. x 28= \_\_\_\_\_

### Beverages and Dining:

How many glasses of the following beverages do you drink per week: Average glass=8 oz.

Juice \_\_\_\_\_ x 11= \_\_\_\_\_

Wine \_\_\_\_\_ x 12= \_\_\_\_\_

Soda \_\_\_\_\_ x 14= \_\_\_\_\_

Milk \_\_\_\_\_ x 15= \_\_\_\_\_

Coffee \_\_\_\_\_ x 25= \_\_\_\_\_

How many times in the average week do you eat breakfast, lunch or dinner at a restaurant?

Enter amount \_\_\_\_\_ x 2000= \_\_\_\_\_

### Housing

Assuming you have one house or apartment, add 1 for each bedroom you use. Then add 1 for each empty bedroom, study or entertainment room.

Enter amount \_\_\_\_\_ x 2700= \_\_\_\_\_

### Transportation

Enter the number of miles traveled during an average week, including weekends.

solo in personal car \_\_\_\_\_ x 52= \_\_\_\_\_

bus/train/carpool \_\_\_\_\_ x 0.33 x 52= \_\_\_\_\_

Airline: Did you fly anywhere in the last year? If so, how far was your trip both ways?

Enter amount \_\_\_\_\_ x 2= \_\_\_\_\_

### Energy

Do you conserve energy at home and work?

No- add 1000, sometimes - 850, usually - 700, always - 500

Enter amount \_\_\_\_\_

Note: Subtract the percentage of primary lighting or water heating that is solar or wind power.

### Water

Do you conserve water at home and work?

No – then enter 1000, sometimes - 850, usually - 700, always - 500

Enter amount \_\_\_\_\_

Note: This conservative estimate could be multiplied by 6 to capture the amount of water used per capita in the US for commercial and industrial purposes.

### Waste

Do you recycle?

No – then enter 1000, sometimes - 800, consistently - 500

Enter amount \_\_\_\_\_

**Calculate Your Footprint:**

Total the results from above: \_\_\_\_\_  
 Divide that number by 10,000: \_\_\_\_\_  
 Multiply by 2.47: \_\_\_\_\_

- 9) Compare your ecological footprint to the 5.5 acre Fair EarthShare (FES) amount described above. Explain why your footprint is higher than the FES.

The footprint of those of us living in developed countries is higher than the FES because we consume a disproportionately large share of Earth's natural resources.

- 10) List the categories from the calculator that made the largest contribution to your ecological footprint.

For most of us, the largest contributions will be from our food and energy (housing and transportation) needs.

- 11) Explain the ways in which you personally could reduce your footprint.

Answers here should focus on the personal consumption categories that make the largest contribution to one's own footprint. For example, eating meat requires a great deal of productive land, so switching to a diet with more vegetables and fruits would significantly reduce one's footprint. Likewise, transportation (energy) has a large footprint, so reducing one's energy consumption can be highly significant.

- 12) If the 5.5 acre FES is what planet Earth can support in a sustainable manner, determine how many planets we would need if all of the world's population were to have a footprint the size of yours.

Here the students need to take their footprint and divide it by the FES. For example: the 24 acre US average is 4.4 times greater than the 5.5 acre FES (24 divided by 5.5 = 4.4x). This means that if everyone on Earth consumed like the average American, then we would need 4.4 Earths.

## EXPERIMENT 16

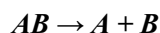
### Reactions of Compounds - Decomposition, Precipitation, and Acid-Base

## INTRODUCTION

Reactions involving compounds can be either oxidation-reduction reactions or non-oxidation-reduction reactions. Non-oxidation-reduction reactions are those in which elements undergo no changes in their oxidation states. This is the case because the atoms of the reacting elements have already achieved stable electron arrangements, existing as ions with octet configurations. Because of their stable electron arrangements, these ions have no tendencies to gain or lose electrons. Therefore, any reactions that these ions undergo are reactions in which the ions reorganize themselves to produce compounds that are more stable than the original reacting ions. This experiment will look at three types of reactions involving compounds.

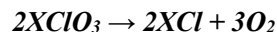
1. **DECOMPOSITION:**  $AB \rightarrow A + B$ . Decomposition reactions involve the separation of a compound into two or more constituent parts. When one or more of the products are elemental forms of matter, this is evidence that the reaction must be an oxidation-reduction reaction. There are two common types of redox decomposition reactions:

- (a) A binary compound decomposes into its constituent elements. In this reaction the negative element in the compound loses electrons to become an elemental atom, while the positive element gains those electrons to become an elemental atom. Assuming the negative element **B** forms stable 1- ions and the positive element **A** forms stable 1+ ions, the molecular equation for this reaction is:



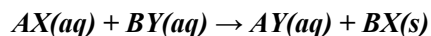
Because these reactions do not occur in water solution, they cannot be expressed in ionic form or net ionic form.

- (b) A metallic chlorate compound decomposes into a metallic chloride compound and oxygen gas. In this reaction the chlorine in the chlorate ions gain electrons to form stable chloride ions,  $\text{Cl}^-$ , while the oxygen in the chlorate ions loses those electrons to become elemental atoms of oxygen. Because elemental oxygen exists as diatomic molecules, and assuming the chlorate ions are bonded to cation **X** with a charge of 1+, the molecular equation for this reaction is:

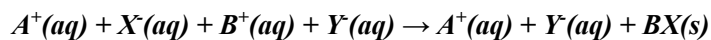


Because these reactions do not occur in water solution, they cannot be expressed in ionic form or net ionic form.

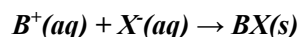
2. **PRECIPITATION or METATHESIS REACTIONS:**  $AX + BY \rightarrow AY + BX(s)$ . Precipitation or metathesis reactions occur when soluble ions from separate solutions are mixed together and form an insoluble compound that settles out as a solid. This insoluble compound is called the **precipitate**. These reactions are non-oxidation-reduction because electrons are not being transferred; ions are just reorganizing themselves to produce a precipitate that is more stable than the original reacting ions. Assuming the cations **A** and **B** have 1+ charges, the anions **X** and **Y** have 1- charges, and the compound **BX** is insoluble in water, then the molecular equation for the reaction between **AX(aq)** and **BY(aq)** is:



the ionic equation is:



and canceling out the  $X^-$  spectator ions, the net ionic equation is:

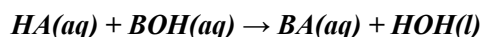


The formation of a solid when two solutions are mixed is evidence of a precipitation reaction.

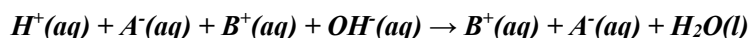
Precipitates may appear cloudy, milky, or as crystals.

3. **ACID-BASE REACTIONS:**  $HA + B \rightarrow A^- + BH^+$ . Acid-base reactions occur when soluble substances in separate solutions are mixed together and a hydrogen ion is transferred from one substance to the other. The molecule or ion that donates the hydrogen ion (or proton) is called a **Brønsted acid**, and the molecule or ion that accepts the hydrogen ion (or proton) is called a **Brønsted base**. These reactions are non-oxidation-reduction because electrons are not being transferred; a hydrogen ion is being transferred from an acid to a base to form products that are more stable than the original reactants. There are four common types of acid-base reactions:

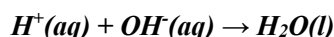
- (a) Acids react with soluble metallic hydroxides to produce water. Assuming that the acid contains anion **A** with a charge of 1- and the metallic hydroxide contains cation **B** with a charge of 1+, the molecular equation for this reaction is:



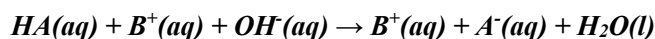
if the acid is a strong acid, the ionic equation is:



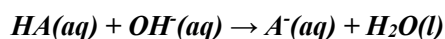
and canceling out the  $A^-$  and  $B^+$  spectator ions, the net ionic equation is:



However, if the acid is a weak acid, then the ionic equation is:

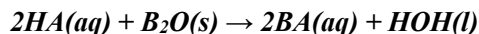


and canceling out the  $B^+$  spectator ions, the net ionic equation is:

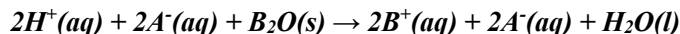


This is an acid-base reaction because the **HA** molecule is acting as a Brønsted acid by donating its hydrogen ion, and the **OH<sup>-</sup>** ion is acting as a Brønsted base by accepting the hydrogen ion.

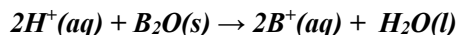
- (b) Acids react with insoluble metallic oxides to produce water. Assuming that a strong acid contains anion  $A$  with a charge of 1- and the metallic oxide contains cation  $B$  with a charge of 1+, the molecular equation for this reaction is:



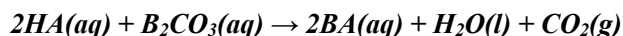
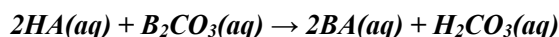
the ionic equation is:



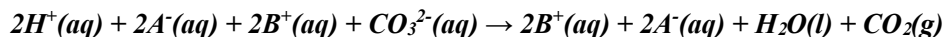
and canceling out the  $2A^-$  spectator ions, the net ionic equation is:



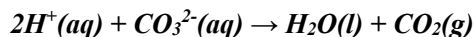
- (c) Acids react with soluble metallic carbonates or bicarbonates to produce carbonic acid, which immediately decomposes into carbon dioxide and water. Assuming that a strong acid contains anion  $A$  with a charge of 1- and a metallic carbonate contains cation  $B$  with a charge of 1+, the molecular equation for this reaction is:



the ionic equation is:

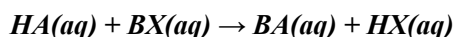


and canceling out the  $2A^-$  and  $2B^+$  spectator ions, the net ionic equation is:

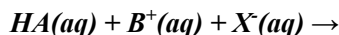


A similar reaction occurs between an acid and a metallic bicarbonate.

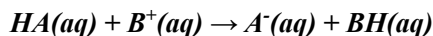
- (d) The final type of acid-base reaction is not obvious. For each of the previous reactions, the product of the hydrogen ion transfer has been water, and was predicted by exchanging the positive and negative ions of the two reacting compounds. However, if water (or a precipitate) is not produced:



an alternate approach must be used to predict the products. This approach involves writing the reactants in ionic form. For a weak acid reacting with a soluble ionic compound:



Next, attempt to identify a Brønsted acid and a Brønsted base among the reactants. The Brønsted acid must have an ionizable hydrogen in its formula, and the Brønsted base must have an atom with a lone pair in its valence shell (such as the O in  $OH^-$  or the N in  $NH_3$ ) to accept the hydrogen ion. If the  $B^+$  has a lone pair in its valence shell, it can accept the hydrogen ion from the  $HA$ , and the reaction would be:



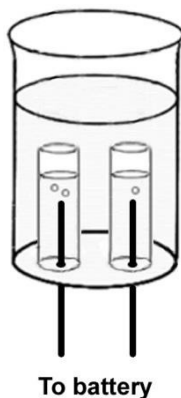


## PROCEDURE

1. Students will work individually for this experiment. Except for the laboratory handout, remove all books, purses, and such items from the laboratory bench top, and placed them in the storage area by the front door. For laboratory experiments you should be wearing closed-toe shoes. Tie back long hair, and do not wear long, dangling jewelry or clothes with loose and baggy sleeves. Open your lab locker. Put on your safety goggles, your lab coat, and gloves.

### REACTION 1 - DECOMPOSITION OF A BINARY COMPOUND

2. Obtain a plastic container with two platinum wires fused into it, 2 small vials, and a 9-volt battery from the cart. With a 3-pronged clamp, carefully clamp the container to your ring stand a few centimeters above the base. Obtain 50 mL of *water with acid catalyst* from the carboy near the instructor's desk. Completely fill the two small vials with the *water with acid catalyst* so they contain no bubbles of air, turn them upside down (the water will stay in!) and position them over the two platinum wires. Next, half fill the container with the *water with acid catalyst*.



3. Connect the 9-volt battery to the battery clip on the wires sticking out of the bottom of the container. Keep the battery connected for three minutes, and then disconnect it. Record your observations, including the volume of gas in each vial, and predict the gases produced in the two vials. Work out the balanced equation in the Reaction 1 box in the *Reaction Work* section following the Data Table. A catalyst is a substance that speeds up a chemical reaction without being used up in the chemical reaction itself. Therefore, the acid catalyst should not be placed in your chemical equation. Write the final balanced equation in the Reaction 1 box of the *Final Equations* section on page 171, including the phases of each reactant and product. The solutions can be disposed of down the sink.

## REACTION 2 - DECOMPOSITION OF METALLIC CHLORATES

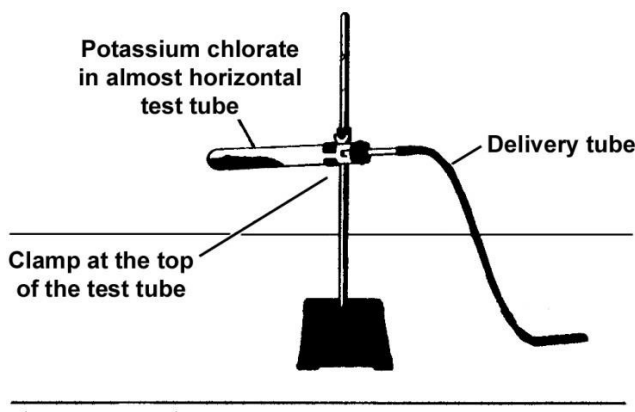
4. Bring your clean, dry extra-large test tube, a 400-mL beaker, and your microspatula to a balance. Carefully open the side sliding door of the balance. Watch for debris in the track of the sliding door and clean it out if it is present because the sliding door is one of the most fragile parts of the balance. Place your extra-large test tube in the 400-mL beaker for support, set them on the balance. Press the tare key to zero out the mass of the beaker and test tube.
5. Transfer a small amount of potassium chlorate (which is mixed with a small amount of manganese (IV) oxide to act as a catalyst) from its reagent bottle to a weighing cup or a glass or porcelain container by *pouring*.

**CAUTION:** Never place your microspatula or scoopula into a reagent bottle.

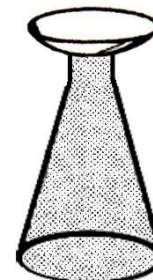
Remove the test tube from the balance chamber. Add the potassium chlorate to the test tube, place it back on the balance, and continue to add enough until the mass is about one gram.

**NOTE:** If any solid is spilled on the balance or on the lab bench, clean them up *immediately*, and dispose of it in the waste bottle in Fume Hood *A*. If there are any crystals left on the balance or the lab bench at the end of the lab period, the instructor will deduct one point from *everyone's* lab score as a charge for cleaning up after you.

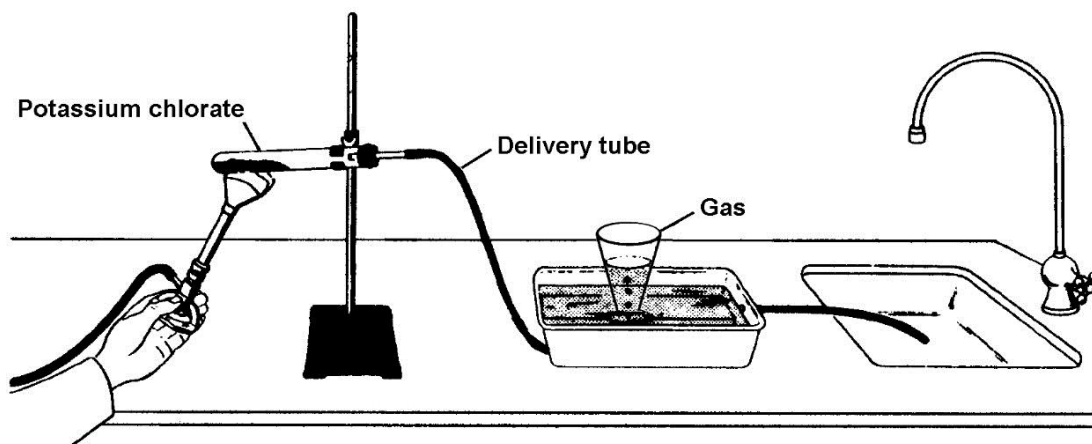
6. Attach the extra-large test tube containing the potassium chlorate to a ring stand using a 3-pronged clamp. The clamp should be attached to the extra-large test tube *near the top of the test tube*. The test tube should be in an inclined position, but almost horizontal. Attach the stopper with the glass bend and delivery tube to the extra-large test tube.



7. Position your pneumatic trough so that the overflow hose empties into your sink. Attach the delivery tube from your extra-large test tube to the delivery nozzle at the bottom of the pneumatic trough. Fill the pneumatic trough two-thirds full of water.
8. Completely fill a 125-mL Erlenmeyer flask with water. Cover the mouth of the flask with the convex side of a wet watch glass, and invert it into the trough, removing the watch glass once the mouth of the flask is under water. There should be no air bubbles in the flask. Place the flask over the hole in the bottom of the trough, which is connected to the delivery tube.
9. Begin to heat the potassium chlorate in the test tube slowly, holding the burner with your hand so that you can move it to heat the entire solid uniformly. **Do not heat the clamp, it may melt.**



**CAUTION:** Heating the potassium chlorate too strongly may build up pressure and shoot the stopper out of the test tube. Do not have the test tube pointed at anyone!



10. When the flask has been completely filled with gas, stop heating. While under water, slide a watch glass over the mouth of the flask and remove the flask from the trough. Place the flask on your lab bench, leaving the watch glass on the flask to keep the gas trapped. When cool enough to touch, remove the stopper from the large test tube to prevent cold water from the pneumatic trough from being drawn back into the large test tube through the delivery tube. This may cause the test tube to crack.
11. Test the gas in the flask by quickly sliding the watch glass off and inserting a glowing (not burning) splint. Work out the balanced equation in the Reaction 2 box of the **Reaction Work** section following the Data Table. A catalyst is a substance that speeds up a chemical reaction without being used up in the chemical reaction itself. Therefore, the manganese (IV) oxide catalyst should not be placed in your chemical equation. Write the final balanced equation in the Reaction 2 box of the **Final Equations** section on page 171, including the phases of each reactant and product. When cool, the contents of the test tube can be washed down the sink.

### REACTION 3 - PRECIPITATION REACTIONS

12. Place about 1 mL of 0.1 M potassium nitrate solution, 0.1 M barium nitrate solution, 0.1 M silver nitrate solution, and 0.1 M nickel (II) nitrate solution into four separate medium test tubes. Measure the 1 mL with a graduated cylinder one time only, then approximate all further volumes. Add about 1 mL of 0.01 M sodium acetate solution to each of the four test tubes. In your **Observations Section** of the Data Table, record **S** if the resulting solution contains only soluble products, and **I** if the resulting solution contains an insoluble product. Include the appearance of the insoluble product. Place all solutions in a waste beaker on your lab bench and clean the five test tubes.
13. Refill the four test tubes with the metal ion solutions and add 1 mL of 0.1 M sodium chloride solution to each. Record the results as before.
14. Clean the test tubes and repeat step 12, except add 1 mL of 0.1 M sodium sulfate solution to each of the four test tubes, not sodium chloride solution. Record the results as before.
15. Clean the test tubes and repeat step 12 again, except add 1 mL of 0.1 M sodium phosphate solution to each of the four test tubes, not sodium chloride solution. Record the results as before. Dispose of the contents of the waste beaker in the **Liquid Waste** bottle in the fume hood.
16. For each combination of solutions, *if precipitates form*, work out the balanced molecular and ionic equations in the Reaction 3 boxes in the **Reaction Work** section following the Data Table. Write the final balanced net ionic equations in the Reaction 3A to 3P boxes of the **Final Equations** section on page 171. If no reaction occurs, do not use a box in the **Reaction Work** section, and write **NR** in the **Final Net Ionic Equations** section.

### REACTION 4 – ACID-BASE REACTIONS FORMING WATER

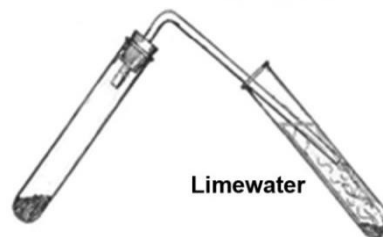
17. Place about 2 mL of 0.1 M sulfuric acid and 2 mL of 0.1 M phosphoric acid into two separate medium test tubes. Introduce 1 drop of phenolphthalein indicator to each test tube. Phenolphthalein is an acid-base indicator that is colorless in acidic solutions and pink in basic solutions. Add 1.0 M sodium hydroxide solution to each test tube until a permanent color change is observed, indicating that the acid has been reacted away. In your **Observations Section** of the Data Table, record the color change. All chemicals from these reactions can be rinsed down the sink.
18. For each combination of solutions, work out the balanced molecular and ionic equations in the **Reaction Work** section following the Data Table. Write the final balanced net ionic equations in the Reaction 4A and 4B boxes of the **Final Equations** section on page 172. If no reaction occurs, do not use a box in the **Reaction Work** section, and write **NR** in the **Final Equations** section.

### REACTION 5 – ACID-BASE REACTIONS FORMING A GAS

19. Place about 1 gram of sodium bicarbonate in a 50-mL beaker and dissolve it in about 10 mL of deionized water. Measure out 5 mL of 6 M hydrochloric acid in a graduated cylinder. Prepare a burning splint, and then add the hydrochloric acid to the beaker. Hold the burning splint in the beaker, but not in contact with any liquid. Record your observations.



20. Obtain from the back of the lab room a one-hole rubber stopper equipped with a glass bend. Support a large test tube with a clamp on a ring stand at a 45-degree angle. Attach the one-hole rubber stopper equipped with a glass bend. Half fill a medium test tube with a saturated calcium hydroxide solution, known commonly as limewater, and place it in a small beaker for support. Submerge the end of the glass bend into the limewater in the medium test tube, and make sure the end of the glass bend remains submerged.



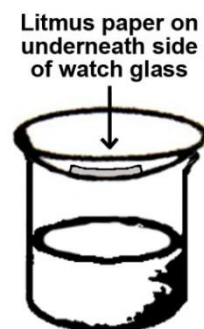
21. Disconnect the stopper from the large test tube and add a small amount of sodium bicarbonate. Measure out about 1 mL of 6 M hydrochloric acid, add it to the large test tube, and quickly reconnect the stopper. Observe and record the any change in the limewater and identify the gas. All excess chemicals from this reaction can be rinsed down the sink.
22. Work out the balanced molecular and ionic equations in Reaction 5 box of the **Reaction Work** section following the Data Table. Write the final balanced net ionic equation in the Reaction 5 box of the **Final Equations** section on page 172.

### REACTION 6 - ACID-BASE REACTIONS

23. Place about 10 mL of 0.1 M ammonium chloride solution into a 50-mL beaker. Add about 5 mL of 1.0 M potassium hydroxide solution to the beaker and waft to detect any odor. Record your observations.
24. Place about 10 mL of 1.0 M ammonium chloride solution into a second 50-mL beaker. Obtain a piece of red litmus paper. Wet the piece of litmus paper with deionized water from your wash bottle and stick the litmus paper to the convex side of a small watch glass. Add about 5 mL of 1.0 M potassium hydroxide solution to the beaker and set the watch glass on top of the beaker so that the gas produced will come in contact with the wet litmus paper. Record your observations and identify the gas. Rinse excess chemicals from this reaction down the sink.



25. Work out the balanced ionic equation in Reaction 6 box of the **Reaction Work** section following the Data Table. Write the final balanced net ionic equation in the Reaction 6 box of the **Final Equations** section on page 172.
26. Clean and wipe dry your laboratory work area and all apparatus. When you have completed your lab report have the instructor inspect your working area. Once your working area has been checked your lab report can then be turned in to the instructor.



**EXPERIMENT 16 LAB REPORT**

Name: \_\_\_\_\_ Student Lab Score: \_\_\_\_\_

Date/Lab Start Time: \_\_\_\_\_ Lab Station Number: \_\_\_\_\_

**DATA TABLE**

REACTION 1 OBSERVATIONS
Observation of Water with Current
Volume of Gas in First Vial
Identity of Gas in First Vial
Volume of Gas in Second Vial
Identity of Gas in Second Vial

REACTION 2 OBSERVATIONS
Observation of Potassium Chlorate with Heat
Result of Gaseous Product with Glowing Splint
Identity of Gaseous Product

<b>REACTION 3 OBSERVATIONS</b>	Sodium Acetate	Sodium Chloride	Sodium Sulfate	Sodium Phosphate
Potassium Nitrate	3A	3E	3I	3M
Barium Nitrate	3B	3F	3J	3N
Silver Nitrate	3C	3G	3K	3O
Nickel (II) Nitrate	3D	3H	3L	3P

<b>REACTION 4 OBSERVATIONS</b>
Sulfuric Acid with Sodium Hydroxide
Phosphoric Acid with Sodium Hydroxide

<b>REACTION 5 OBSERVATIONS</b>
Sodium Bicarbonate with Hydrochloric Acid
Gaseous Product with Burning Splint
Gaseous Product with Lime Water
Identity of Gaseous Product

REACTION 6 OBSERVATIONS
Ammonium Chloride with Potassium Hydroxide
Gaseous Product Odor
Observation of Litmus Paper with Gaseous Product
Identity of Gaseous Product

### REACTION WORK

Rxn 1
Rxn 2



Rxn 3 \_\_\_\_

Rxn 3 \_\_\_\_

Rxn 3 \_\_\_\_

Rxn 3 \_\_\_\_

Rxn 3 \_\_\_\_

Rxn 3 \_\_\_\_

Rxn 3 \_\_\_\_

Rxn 3 \_\_\_\_

Rxn 4A

Rxn 4B

Rxn 5

Rxn 6

**FINAL EQUATIONS****REACTION 1****REACTION 2****REACTION 3A****REACTION 3B****REACTION 3C****REACTION 3D****REACTION 3E****REACTION 3F****REACTION 3G****REACTION 3H****REACTION 3I****REACTION 3J****REACTION 3K****REACTION 3L****REACTION 3M****REACTION 3N****REACTION 3O****REACTION 3P**

<b>REACTION 4A</b>
<b>REACTION 4B</b>
<b>REACTION 5</b>
<b>REACTION 6</b>

### **QUESTIONS**

1. Describe a test you could do, along with the results, to show that a gas collected in lab is hydrogen.

---



---



---

2. Describe a test you could do, along with the results, to show that a gas collected in lab is oxygen.

---



---



---

3. Describe two tests you could do, with the results, to show that a gas collected in lab is carbon dioxide.

---



---



---



---



---



---

4. Describe two tests you could do, with the results, to show that a gas collected in lab is ammonia.

---



---



---



---



---



---

## Chem 1216 Paper Assignment: Determining Your Carbon Footprint

**What's your "fair share" of carbon emissions? You're probably blowing way past it.**

How the right to pursue happiness through unlimited consumption harms the planet, and our kids.

By [Jag Bhalla](#) Feb 24, 2021

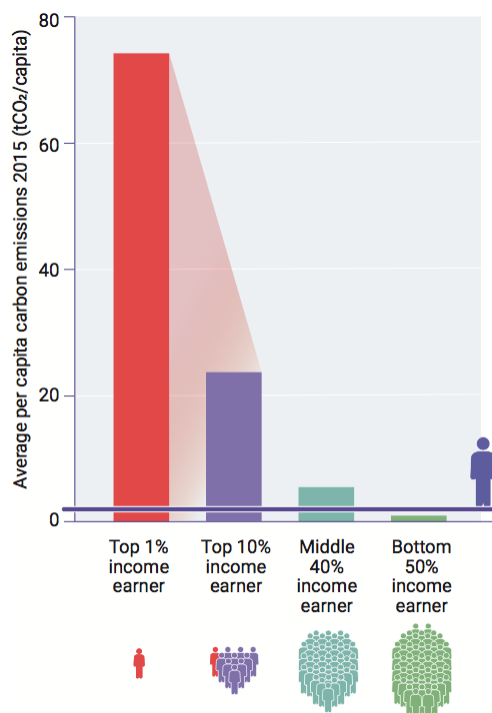
Vox - <https://www.vox.com/22291568/climate-change-carbon-footprint-greta-thunberg-un-emissions-gap-report>

Our liberty-loving way of life has landed us in an encircling moral maze otherwise known as the climate crisis. That means certain of our cherished rights face a new test. While many are misled into imagining we can escape with minor tweaks to our "normal" lives, the science begs to differ: We have a very narrow window to collectively cut emissions, or face a destabilized climate that will make life on Earth for most beings much more perilous.

Fortunately, there is much we can do to quickly improve matters, but first we need moral clarity. Consider this simple question: Since we are all created equal, what would equal carbon rights look like?

We now have part of an answer. The latest [United Nations Emissions Gap Report](#) includes the chart on the following page, which shows that to stay on track for an average global temperature rise of 1.5 degrees Celsius, the average biosphere-baking emissions for each human on Earth under the most likely conditions needs to be

**2.1 tons of carbon dioxide equivalents (tCO<sub>2</sub>e) per year, by 2030.**



For any given target temperature stabilization there is a “carbon budget,” a fixed total amount of carbon dioxide (and equivalents) that can be emitted by everyone, and everything, on Earth. To arrive at an “equitable low-carbon lifestyle allocation” of 2.1 tCO<sub>2</sub>e each per year by 2030, simply divide that total by the number of humans. The UN doesn’t quite call this the carbon “**fair share**,” but that’s what that the **horizontal line** in the chart above means.

This writing assignment is divided into three portions. The first addresses basics of carbon combustion. In the second part, you will investigate the science of a major part of the root causes of global warming and climate change, which is carbon, human behavior, and the historically rapid increase in greenhouse gases particularly carbon dioxide (CO<sub>2</sub>). In the third part, you will investigate how you personally relate to and contribute to putting carbon into our environment, using a “carbon footprint” calculator to assess your impact on global warming and our climate. The carbon calculator estimates how many equivalent tons of carbon dioxide our personal behavior and life choices contribute each year. Learning about your personal carbon footprint, you will identify what you can do to improve it. If improvements are not made, life on earth faces potentially catastrophic environmental consequences. Your writing submission should be an original essay of ~1000 words incorporating responses to the questions below into a few cohesively written paragraphs using the provided on-line resources relating to the science of global warming & climate change as your references.

### **Part I: Basics of Carbon Combustion**

One of the cleanest burning octanes is 2,3,4 trimethylpentane. Although gasoline is a complex mixture of many hydrocarbons, for purposes of this assignment, let’s assume that it is composed of only of the octane 2,3,4 trimethylpentane, C<sub>8</sub>H<sub>18</sub>.

Assume you drive 15 000 miles in a year and get 30 mpg.

How many gallons of 2,3,4 trimethylpentane do you consume in a year?

How many cubic meters of 2,3,4 trimethylpentane is this?

How many kg of 2,3,4 trimethylpentane is this?

The density of 2,3,4 trimethylpentane is 0.719 g/cm<sup>3</sup> = 719 kg/m<sup>3</sup>

There are 264 gallons in a cubic meter.

Write a balanced reaction for the combustion of 2,3,4 trimethylpentane

Calculate how many metric tons (one ton = 1000 kg) of carbon dioxide you produce from burning 2,3,4 trimethylpentane (gasoline) over the course of a year.

## Part II: Basics of the Greenhouse Effect and the History of Atmospheric Carbon

Readings from the National Oceanic & Atmospheric Administration, NOAA

### NOAA: Basics of the Carbon Cycle and the Greenhouse Effect

[https://www.esrl.noaa.gov/gmd/education/carbon\\_toolkit/basics.html](https://www.esrl.noaa.gov/gmd/education/carbon_toolkit/basics.html)

### NOAA: History of atmospheric carbon dioxide from 800,000 years ago until January, 2019

<https://www.esrl.noaa.gov/gmd/ccgg/trends/history.html>

#### Guiding Questions – in your response, consider the following questions:

- What is the greenhouse effect?
- What are the four most important greenhouse gases?
- How can relatively small concentrations of greenhouse gases have such a large impact on global surface temperatures?
- Not all greenhouse gases contain a carbon atom. Why has carbon been focused on as the leading global warming concern?
- How much CO<sub>2</sub> is presently in the atmosphere, and how do we know CO<sub>2</sub> in the atmosphere is increasing?
- How has the amount of CO<sub>2</sub> in the atmosphere changed over time in the last 200 years?..... over the past hundreds of thousands of years?
- How do we know that humans are responsible for the sudden increase in CO<sub>2</sub>?
- What is the carbon cycle?
- Why is burning fossil fuels the main focus of global climate concerns?
- What are the possible alternative energy resources that can replace fossil fuels, and why is solar energy perhaps the most important among them?

## Part III: Calculating Your Carbon Footprint

Go to the following websites to obtain an estimate of your yearly carbon footprint:

<https://www.carbonfootprint.com/calculator.aspx>

<https://coolclimate.org/calculator>

Consider the following questions:

What is the carbon footprint in tons of CO<sub>2</sub> per year for an average household in the U.S.?

What is your personal and/or household carbon footprint in tons of CO<sub>2</sub> per year?



What can you do to improve your carbon footprint in relation to

Travel?

Housing?

Food & Diet?

Shopping for Goods & Services?

What can you do to bring attention to and improve the awareness of carbon & global warming  
... in your home? ...in your community?

### **What to Submit –**

Write a grammatically correct essay, which is free of spelling errors, that is organized with a minimum of four sections:

an introductory section defining global warming

a section showing your calculation of tons of CO<sub>2</sub> that are produced from driving a car for a year

a section describing the role that carbon and CO<sub>2</sub> play in global warming

a section that describes your role in contributing to and mitigating global warming

### **Additional References**

[A Life on Our Planet: My Witness Statement and a Vision for the Future Hardcover: David Attenborough](#)

[How to Avoid a Climate Disaster: The Solutions We Have and the Breakthroughs We Need: Bill Gates](#)

[No One Is Too Small to Make a Difference: Greta Thunberg](#)

[Under a White Sky – The Nature of the Future: Elizabeth Kolbert](#)

[The Uninhabitable Earth: Life After Warming: David Wallace-Wells](#)

## SPAN 216: Intermediate Spanish II

### New Mexico Institute of Mining and Technology

#### Supporting Document for New Mexico General Education Course Certification Form

March 19, 2021

**Proyecto final: A research presentation on Hispanic everyday life and culture.** You will select a topic related to the textbook chapters, and choose a specific country in Latin America (Spain and Equatorial Guinea are also possibilities). You will then develop a research presentation that combines written text, extensive visual materials, and audiovisual technology. The final product will be a video file in which you present your material, using Zoom or other recording software. The principal objective of the presentation is to *inform* and *entertain*. Your presentation should formulate a clear response to your research topic, it should educate your classmates on the topic you have chosen, and it should entertain and hold the interest of your audience.

#### Procedimiento básico:

1. **La propuesta.** You will submit an initial proposal for your presentation as part of your weekly homework assignment on **miércoles, 3 noviembre**. Your proposal must formulate a general research question and explain why this question is of interest to you. You also must choose a specific country to focus on. I'll give you feedback by **viernes, 5 noviembre**.
2. **El esbozo/la bibliografía.** In your weekly homework assignment due on **miércoles, 10 noviembre**, you will provide a basic outline of your presentation. Your outline will include: a) a clear, informative thesis/topic statement that relates to your research question; b) 5-7 main points that will make up the body of your presentation, with 2-3 sub-points for each of your main points; and c) a short bibliography of sources you plan to use for your presentation.
3. **La presentación.** You will create a presentation using either Google Slides or PowerPoint. Your presentation should incorporate extensive visual materials and concise textual information. See the rubric below for more details on how your presentation will be graded. You will then record your presentation using audiovisual software such as Zoom. The basic time requirement is *at least eight minutes*. See the rubric below for more details on how your recording will be graded.
4. **La entrega.** You will save your recorded presentation and share it via Google Drive, along with a copy of the presentation in Google Slides or PowerPoint. **Fecha límite: 15 diciembre a las 11:59 PM.**

#### Temas posibles:

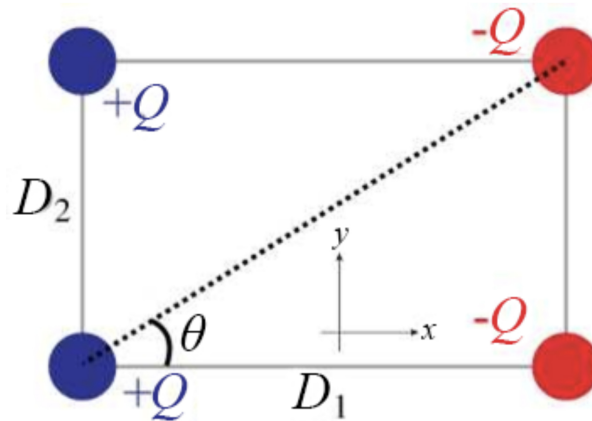
1. **La vida comunitaria y los movimientos sociales en América Latina.** Elige un país de América Latina y formula una pregunta de investigación relacionada con la vida comunitaria y/o los movimientos sociales en el presente. Puedes enfocarte en diversos

aspectos de la vida, como la educación, la salud, los derechos civiles/humanos, u otras partes de la vida comunitaria.

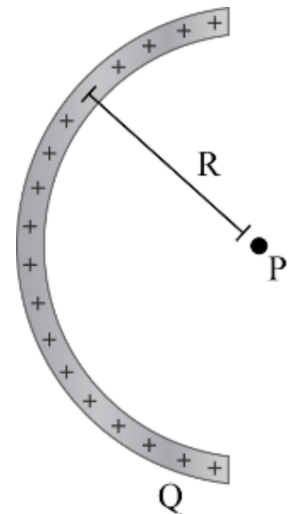
2. **La vida profesional en América Latina.** En Capítulo 8, estudiamos las profesiones y el mundo de los negocios en América Latina. En tu presentación, elige un país y formula una pregunta de investigación sobre una profesión en particular. Puede ser tu propia profesión futura (como ingeniería civil, biología, física, astronomía, etc.), o puede ser otra profesión que te interese.
3. **El arte y la literatura en América Latina.** En Capítulo 9, estudiamos la expresión artística. Elige un país y un/a artista, escritor/a, un género artístico, o un movimiento artístico. Formula una pregunta de investigación sobre ese tema. Puedes elegir artistas famosas como Frida Kahlo o Wifredo Lam; escritores conocidos como Gabriel García Márquez o Valeria Luiselli, o géneros prominentes como la pintura, la escultura, la poesía o el teatro.
4. **El patrimonio natural de América Latina.** En Capítulo 10, estudiamos el medio ambiente y temas asociados con la vida natural y la biodiversidad de América Latina. Elige un país y un tema asociado con la vida natural y formula una pregunta de investigación. Puede ser un animal o una planta endémica a América Latina; un sitio o recurso natural de particular importancia; u otro tema asociado con el mundo natural.

**Instructions:** [nmt.instructure.com/courses/18725/pages/exam-1-instructions](https://nmt.instructure.com/courses/18725/pages/exam-1-instructions)

1. (20%) The figure below shows four electric charges located at the corners of a rectangle. The magnitude of each charge is  $Q = 2 \mu\text{C}$ . What is the net horizontal (a) and vertical (b) electric force on the charge located in the *upper-right* corner of the rectangle? The rectangle has sides  $D_1 = 20 \text{ cm}$  and  $D_2 = 12 \text{ cm}$ .

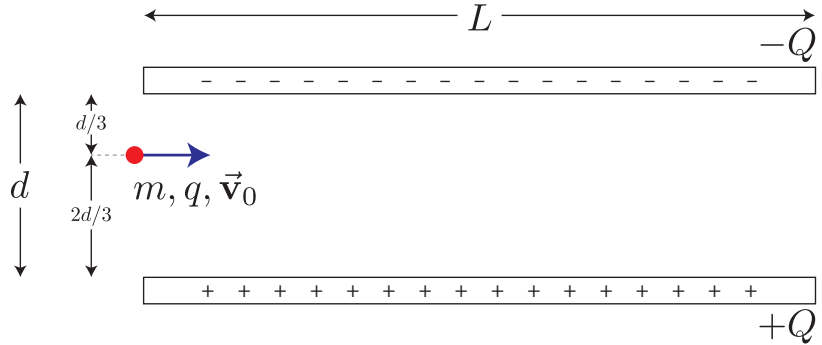


2. (20%) The figure to the right shows a uniformly-charged semicircular ring, with a total charge  $Q$  and radius of curvature  $R$ . Using the four-step method to calculate the electric field from a continuous charge distribution discussed in class, derive a formula for the electric field at point  $P$  as a function of the constants given. Provide both magnitude and direction.

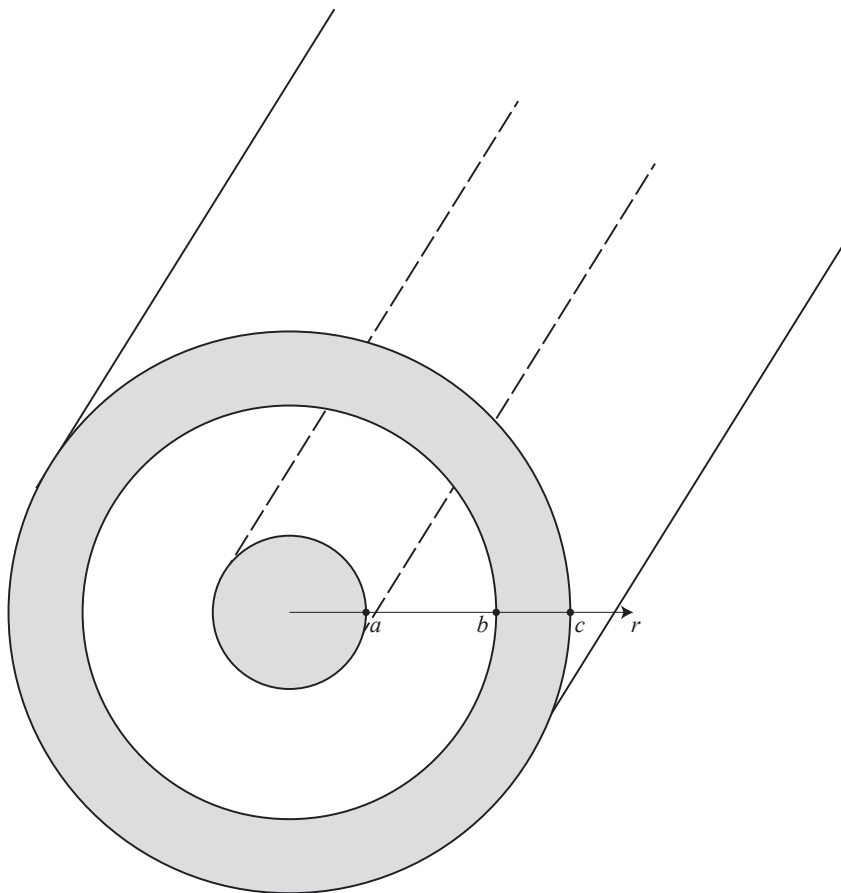


3. (20%) The figure below shows a square parallel plate capacitor of side  $L = 10$  cm. The magnitude of the charge in each plate is  $Q = 1$  nC, and the separation between them is  $d = 2$  mm. A *muon* is shot from the left with an initial velocity  $v_0$  from a location that is a distance  $d/3$  from the top plate (and  $2d/3$  from the bottom one). The muon mass is  $m = 1.88 \times 10^{-28}$  kg and its charge is  $q = -1.6 \times 10^{-19}$  C. Neglect the effect of gravity. A capacitor is simply two charged metal plates separated by a small distance  $d$ . The electric field between them is uniform.

What is the minimum value of  $v_0$  so that the muon traverses the full width of the capacitor without hitting its plates?



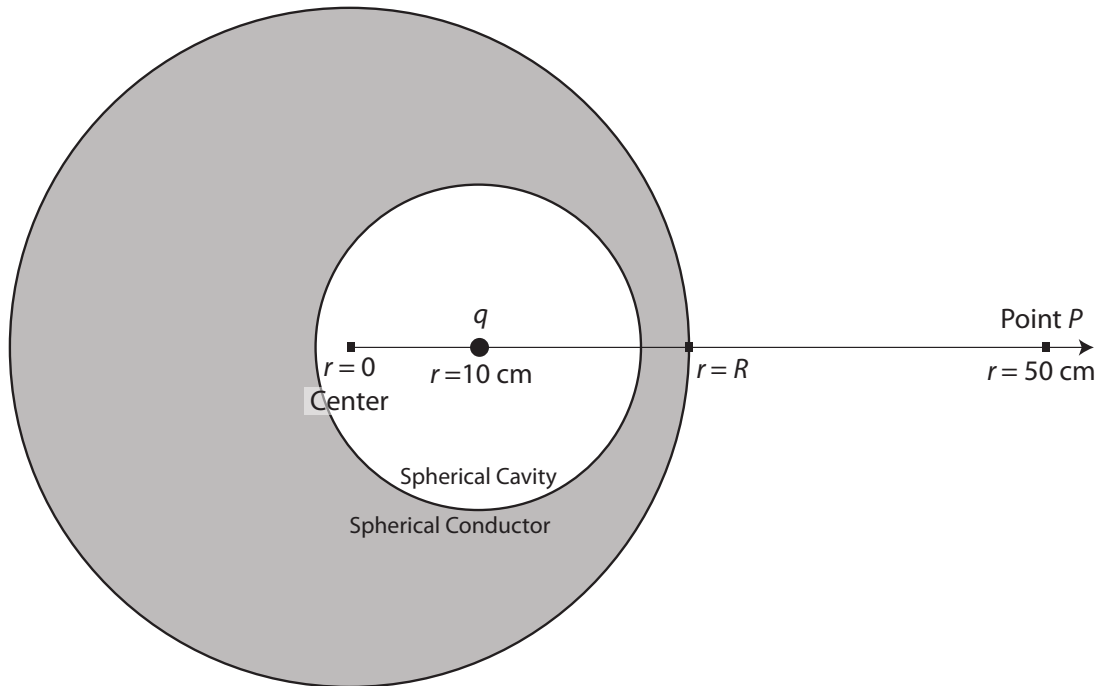
4. (20%) The figure below shows a cross-sectional view of a long *cylinder* of radius  $a$  enclosed by a cylindrical shell of inner radius  $b$  and outer radius  $c$ . Both are made of a plastic material (i.e., a dielectric material). The inner cylinder has a uniform volumetric charge density  $\rho_1$ , while the outer shell has a uniform volumetric charge density  $\rho_2$ .



Derive expressions for the magnitude of the electric field in all regions of space as a function of the radial distance  $r$  and the constants given.

- (a) In region (I), for  $r < a$ .
- (b) In region (II), for  $a < r < b$ .
- (c) In region (III), for  $b < r < c$ .
- (d) In region (IV), for  $r > c$ .

5. (20%) The figure below shows a cross-sectional view of a neutral *conducting sphere* of radius  $R = 25$  cm. The sphere has a cavity inside as shown below. In the center of the cavity, 10 cm away from the sphere's center, there is a point charge  $q = 300$  pC. What is the electric field at point  $P$  located 50 cm away from the sphere's center? Please note that the radial coordinate system is shown in the figure with all relevant distances labelled.



6. (10%) Describe in words the difference between *conductors* and *insulators*. Include at least one example of each.

**BIOL 110 Introduction to Wildlife and Fisheries Lab**  
**Ivory-Billed Woodpecker Case Study Questions**

**Part I—Background**

1. What kind of evidence would convince you that Ivory-billed Woodpecker is not extinct?

**Part II—The Main Evidence**

1. Evaluate the merit of the video as scientific evidence.

**Part III—Email Exchange**

1. What is the major conflict between Brad and Mary in terms of the scientific process?

2. What do you think about Brad's concern that by waiting with the announcement they could miss their chance of saving the birds?

3. Imagine you are the owner of a company that owns the logging rights adjacent to the area of the woodpecker sightings, or a biologist trying to protect the habitat of another endangered species in another part of the State. Do you think that they would be satisfied with the same amount of evidence in this case as Brad? Why/Why not?

4. What is the right amount of evidence?

5. Give other examples of public discourse where your insights from this case could be applied.

6. Decide how much evidence you would need to accept the claim that the Ivory-billed Woodpecker is not extinct.

7. Decide how much evidence you would need to accept that the Ivory-billed Woodpecker is extinct.



## **Sample Assignment for Mesalands Community College ENG 210/ENGL 2994**

### **EXPERIENTIAL LEARNING PORTFOLIO EXPANDED RESUME**

The Experiential Learning Portfolio Extended resume is an itemized listing of all your experiential learning. A template will be provided for this document at the Experiential Learning Workshop (or via email for online participants). You should carefully complete this form including any life experiences you feel resulted in significant learning or that would reflect prior learning that had occurred. You may have areas that are blank. However, be sure to give careful thought to include any experiences that might be relevant.

Each section of the Expanded Resume for which you have any entry (for example, “Awards, Citations, Other Professional Recognition”) must have an accompanying Learning Outcome Statement (see Learning Outcome Statement instructions). Also, each entry within a section (such as, “Employee of the Year Award”) must have supporting documentation in the Documentation section of your portfolio.

In completing the Expanded Resume, you should not change the format of the template and individual tables, headings and so on. Arial 12-point font should be used for all your entries. You may insert additional rows within a table if needed. (See Experiential Learning Portfolio Expanded Resume Template).

### **LEARNING OUTCOME STATEMENTS**

Each section (table) within the Experiential Learning Portfolio Extended Resume must have a corresponding Learning Outcome Statement included in this section.

Each Learning Outcome Statement is a brief essay that should include a short description of each employment, training, or other learning activity listed in each section of the Expanded Resume. More importantly, the narrative should include a discussion of what was learned from the experience and how it has been applied in your work environment or personal life.

Each Learning Outcome Statement should be approximately one to two pages in length. The length may vary depending upon how many individual experiences were listed under the corresponding section of the Expanded Resume. What is most important is that each experience is explained, with specific learning outcomes described for each experience, and connected to a specific course or courses in the Mesalands catalog. The Learning Outcome Statements should be assembled in the same order that the corresponding sections appear in the Experiential Learning Portfolio Expanded Resume (See Sample Learning Outcome Statement).

## **Assignment / THEA 1110: Introduction to Theatre**

(Generally, I require the student to go to a museum, concert, or live play to fully experience the arts in real-time for all my art courses)

Due to COVID 19 this semester, you will be responsible to WATCH 1 live play production and write a review of the production. There is no way to experience theater from the book. You need to go and experience it for yourself.

I am providing links for you to watch a live play production. I DO NOT want a MOVIE of the play or musical. Meaning you need to watch a production that is on stage and not a movie format. There is a live play production of Hairspray, and there are then three movie variations of the same musical. You need to find a live performance or stage performance for this assignment.

I will NOT accept any plays you have seen in the past; you will need to watch a live production this semester. I am providing several links to watch plays and musicals; you can also Google live productions and submit your production. Since we have to do this assignment in a world where we cannot live, I will not accept any elementary or high school film productions. If you want to use a community or university play, please message me to review it.

There is a live play rubric attached. You will need to utilize from the textbook the vocabulary for all of the production you attend, i.e., Practices, Design and Designers, Directing, Acting, etc. You will need to draw an analogy to the historical significance of the play you attend to one of the several historical periods that we covered. This paper encompasses the entire syllabus; make sure you hit every point within your rubrics to receive the maximum grade allowed.

### **LINKS:**

<https://www.timeout.com/theatre/best-streaming-theatre-shows-how-to-watch-online>

[https://www.whatsonstage.com/london-theatre/news/stage-shows-musicals-opera-free-stream-online\\_51198.html](https://www.whatsonstage.com/london-theatre/news/stage-shows-musicals-opera-free-stream-online_51198.html)

<http://www.filmedonstage.com/>

**You can also youtube most musicals on Broadway as well. Hamilton is going to be on Disney+ July 4th as well. That is the staged version.**

*Following is a sample Formative Assessment:*

Read Dante's *Inferno*: Canto III

<https://www.gutenberg.org/files/1001/1001-h/1001-h.htm#CantoIII>

Write a 2-3 page paper discussing the following:

Describe in narrative form, the setting and events in the chapter: where is Dante and why is he there?

What does the inscription on the gate to Hell mean? ("All hope abandon, ye who enter in?")

What are the different groups that Dante encounters in his journey to Hell and who do they represent?

Why does Dante faint at the end of the chapter?

How does this description of Hell agree or disagree with your vision of Hell?

# AMERICAN LITERATURE I                      MIDTERM EXAM

## Part I. Identification

Identify four characters, events, or passages from our readings from the choices given below. Provide as much factual data as you can. Then, in one well-written paragraph each, discuss the significance of the person, event, or idea in an emerging American identity.

- A. Mary Dyer
- B. King Phillip's War
- C. Mary Rowlandson
- D. Cotton Mather
- E. "The God that holds you over the pit of hell, much as one holds a spider, or some loathsome insect over a fire, abhors you."
- F. The trial of Martha Carrier.
- G. Susannah Rawson
- H. The Pequot War.
- I. "I am obnoxious to each carping tongue / Who says my hand a needle better fits."
- J. Judith Sargent Murray
- K. "A City upon a Hill"
- L. Phillip Freneau

## Part II. Short Answers

In several well written paragraphs, respond to two of these three questions:

- A. What are the main characteristics of the American "new made man," as defined by Crèvecoeur and Franklin?
- B. How does the view of Nature, in Bradford's Of Plymouth Plantation, contrast with that of Bradstreet, in "Contemplations"?
- C. How is the political uprising of the American Revolution anticipated in the social, ethical, literary, or cultural identity transformations in the work of any of the authors we have discussed from Bradford to Cooper?

## Part III. Analysis Essay

In *Walden* and in the short story "Wakefield," Thoreau and the character Wakefield can be seen as conducting experiments in leading a new kind of life. Using "Wakefield" and the "Conclusion" of *Walden*, write an essay (600 –1,250 words long) in which you discuss how these experiments differ, what the two protagonists seem to gain from them, and why they decide to "go back." What do the two accounts suggest about the relationship between the individual and society, as Hawthorne and Thoreau viewed them?

Current Score: 0/47 Due: Sun, Mar 7, 2021 11:59 PM MST

Question	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	Total
Points	0/2	0/1	0/2	0/1	0/1	0/4	0/4	0/3	0/3	0/1	0/1	0/2	0/3	0/2	0/1	0/1	0/1	0/1	0/2	0/1	0/2	0/3	0/1	0/2	0/1	0/47

1. 0/2 points

SerCP11 1.3.P.002. [3752557]

(a) Suppose that the displacement of an object is related to time according to the expression  $x = Bt^2$ . What are the dimensions of  $B$ ?

☐  $\frac{\sqrt{L}}{T}$

☐  $L/T$

☐  $L/T^2$

☐  $T^2/L$

☐  $L \times T^2$

☐  $L^2/L$

(b) A displacement is related to time as  $x = A \sin(2\pi ft)$ , where  $A$  and  $f$  are constants. Find the dimensions of  $A$ . (*Hint: A trigonometric function appearing in an equation must be dimensionless.*)

☐  $L \times T$

☐  $L/T$

☐  $T$

☐  $L$

☐  $T/L$

Need Help?

Read It

Newton's law of universal gravitation is represented by

$$F = G \frac{Mm}{r^2}$$

where  $F$  is the gravitational force,  $M$  and  $m$  are masses, and  $r$  is a length. Force has the SI units  $\text{kg} \cdot \text{m}/\text{s}^2$ . What are the SI units of the proportionality constant  $G$ ?

- ☐  $\frac{\text{m}^3}{\text{kg} \cdot \text{s}^3}$
- ☐  $\frac{\text{m}^2}{\text{kg} \cdot \text{s}^2}$
- ☐  $\frac{\text{m}^3}{\text{kg} \cdot \text{s}^2}$
- ☐  $\frac{\text{m}^2}{\text{kg} \cdot \text{s}^3}$

Need Help?

Read It

Kinetic energy  $KE$  has dimensions  $\text{kg} \cdot \text{m}^2/\text{s}^2$ . It can be written in terms of the momentum  $p$  and mass  $m$  as

$$KE = \frac{p^2}{2m}.$$

(a) Determine the proper units for momentum using dimensional analysis.

- ☐  $\text{kg} \cdot \text{m}/\text{s}^2$
- ☐  $\text{kg} \cdot \text{m}/\text{s}$
- ☐  $\text{kg} \cdot \text{m}^2/\text{s}$
- ☐  $\text{kg}^2 \cdot \text{m}/\text{s}$

(b) Force has the SI units  $\text{kg} \cdot \text{m}/\text{s}^2$ . Given the units of force, write a simple equation relating a constant force  $F$  exerted on an object, an interval of time  $t$  during which the force is applied, and the resulting momentum of the object,  $p$ . (Submit a file with a maximum size of 1 MB.)

Choose File No file chosen

Need Help?

Read It

4. 0/1 points

SerCP11 1.4.P.007. [3780490]

A rectangular airstrip measures 34.90 m by 250 m, with the width measured more accurately than the length. Find the area (in  $\text{m}^2$ ), taking into account significant figures.

HINT

4.0 ✓   $\text{m}^2$ 

Need Help?

Read It

Watch It

5. 0/1 points

SerCP11 1.4.P.008. [3775158]

Use the rules for significant figures to find the answer to the addition problem  $S = 23.4 + 16 + 13.17 + 8.403$ .

HINT

 $S =$  4.0 ✓ 

Need Help?

Read It

Watch It

6. 0/4 points

SerCP11 1.4.P.010. [3752316]

Use your calculator to determine  $(\sqrt{8})^3$  to three significant figures in two ways.

(a) Find  $\sqrt{8}$  to four significant figures; then cube this number and round to three significant figures.

4.0 ✓ 

(b) Find  $\sqrt{8}$  to three significant figures; then cube this number and round to three significant figures.

4.0 ✓ 

(c) Which answer is more accurate?

☐ a☐ b

Explain.

Need Help?

Read It

7. 0/4 points

SerCP11 1.4.P.011. [3752339]

How many significant figures are there in each of the following?

(a)  $60.0 \pm 0.6$

(b)  $3.3230 \times 10^9$

(c)  $2.38 \times 10^{-6}$

(d)  $0.0034$

Need Help?

Read It

8. 0/3 points

SerCP11 1.4.P.012. [3752428]

The speed of light is now defined to be  $c = 2.99792458 \times 10^8$  m/s.

(a) Express the speed of light to three significant figures.

4.0 ✓

 m/s

(b) Express the speed of light to five significant figures.

4.0 ✓

 m/s

(c) Express the speed of light to seven significant figures.

4.0 ✓

 m/s

Need Help?

Read It

9. 0/3 points

SerCP11 1.4.P.016. [3752147]

Carry out the following arithmetic operations. (Enter your answers to the correct number of significant figures.)

(a) the sum of the measured values  $545$ ,  $33.4$ ,  $0.90$ , and  $9.0$

4.0 ✓

(b) the product  $0.0055 \times 410.8$

4.0 ✓

(c) the product  $16.70 \times \pi$

4.0 ✓

Need Help?

Read It



10. 0/1 points

SerCP11 1.5.P.018. [3775172]

A house is advertised as having 1440 square feet under roof. What is the area of this house in square meters?

HINT

m<sup>2</sup>

Need Help?

Read It

Watch It

11. 0/1 points

SerCP11 1.5.P.020. [3752427]

A small turtle moves at a speed of 488 furlongs per fortnight. Find the speed of the turtle in centimeters per second. Note that 1 furlong = 220 yards and 1 fortnight = 14 days.

cm/s

Need Help?

Read It

12. 0/2 points

SerCP11 1.5.P.023. [3752214]

A car is traveling at a speed of 35.8 m/s on an interstate highway where the speed limit is 70.0 mi/h. Is the driver exceeding the speed limit?

☐ Yes

☐ No

Justify your answer.

Need Help?

Read It

13. 0/3 points

SerCP11 1.5.P.025. [3752220]

The diameter of a sphere is measured to be 4.40 in.

(a) Find the radius of the sphere in centimeters.

cm

(b) Find the surface area of the sphere in square centimeters.

cm<sup>2</sup>

(c) Find the volume of the sphere in cubic centimeters.

cm<sup>3</sup>

Need Help?

Read It

14. 0/2 points

SerCP11 1.5.P.028.MI. [3752526]

A house is 57.0 ft long and 30 ft wide, and has 8.0-ft-high ceilings. What is the volume of the interior of the house in cubic meters and cubic centimeters?

 m<sup>3</sup> cm<sup>3</sup>

Need Help?

Read It

Master It

15. 0/1 points

SerCP11 1.5.P.031. [3752378]

A quart container of ice cream is to be made in the form of a cube. What should be the length of a side, in centimeters? (Use the conversion 1 gallon = 3.786 liter.)

 cm

Need Help?

Read It

16. 0/1 points

SerCP11 1.6.P.033. [3752280]

Estimate the number of breaths taken by a human being during an average lifetime. (We estimate an average respiration rate of about 10 breaths per minute and a typical life span of 70 years.)

- ☐ 10<sup>6</sup> breaths
- ☐ 10<sup>8</sup> breaths
- ☐ 10<sup>10</sup> breaths
- ☐ 10<sup>12</sup> breaths
- ☐ 10<sup>14</sup> breaths

Need Help?

Read It

Watch It

17. 0/1 points

SerCP11 1.6.P.035. [3780500]

The habitable part of Earth's surface has been estimated to cover 60 trillion square meters. Estimate the percent of this area occupied by humans if Earth's current population stood packed together as people do in a crowded elevator.

HINT

- ☐ 10<sup>-3</sup>%
- ☐ 10<sup>-1</sup>%
- ☐ 10%
- ☐ 50%

Need Help?

Read It

Watch It

18. 0/1 points

SerCP11 1.6.P.037. [3752188]

An automobile tire is rated to last for 35,000 miles. Estimate the number of revolutions the tire will make in its lifetime.

- ☐  $10^{10}$  revolutions
- ☐  $10^7$  revolutions
- ☐  $10^6$  revolutions
- ☐  $10^3$  revolutions
- ☐  $10^{12}$  revolutions

Need Help?

Read It

19. 0/2 points

SerCP11 1.7.P.039.MI. [4499964]

A point is located in a polar coordinate system by the coordinates  $r = 2.4$  m and  $\theta = 24^\circ$ . Find the  $x$ - and  $y$ -coordinates of this point, assuming that the two coordinate systems have the same origin.

 $x =$   m $y =$   m

Need Help?

Read It

Master It

20. 0/1 points

SerCP11 1.7.P.040. [3752170]

A certain corner of a room is selected as the origin of a rectangular coordinate system. If a fly is crawling on an adjacent wall at a point having coordinates  $(2.4, 2.0)$ , where the units are meters, what is the distance of the fly from the corner of the room?

 m

Need Help?

Read It

21. 0/2 points

SerCP11 1.7.P.041. [3752356]

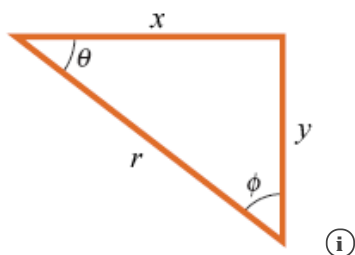
A certain corner of a room is selected as the origin of a rectangular coordinate system. A fly is crawling on an adjacent wall at a point having coordinates  $(2.3, 1.1)$ , where the units are meters. Express the location of the fly in polar coordinates.

 $r =$   m $\theta =$    $^\circ$ 

Need Help?

Read It

For the triangle shown in the figure below what are each of the following? (Let  $y = 36.0$  m and  $r = 45.0$  m. Assume the triangle is a right triangle.)



(a) the length of the unknown side  $x$

 m

(b) the tangent of  $\theta$

(c) the sin of  $\phi$

Need Help?

Read It

Master It

A high fountain of water is located at the center of a circular pool as shown in the figure below. Not wishing to get his feet wet, a student walks around the pool and measures its circumference to be  $10.0$  m. Next, the student stands at the edge of the pool and uses a protractor to gauge the angle of elevation at the bottom of the fountain to be  $55.0^\circ$ . How high is the fountain?

 m

Need Help?

Read It

Vector  $\vec{A}$  has a magnitude of 8.00 units and makes an angle of  $45.0^\circ$  with the positive x-axis. Vector  $\vec{B}$  also has a magnitude of 8.00 units and is directed along the negative x-axis.

(a) Using graphical methods, find the vector sum  $\vec{A} + \vec{B}$ . (Submit a file with a maximum size of 1 MB.)

No file chosen

(b) Using graphical methods, find the vector difference  $\vec{A} - \vec{B}$ . (Submit a file with a maximum size of 1 MB.)

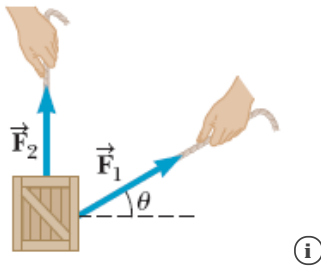
No file chosen

Need Help?

A force  $\vec{F}_1$  of magnitude 7.20 units acts on an object at the origin in a direction  $\theta = 45.0^\circ$  above the positive x-axis. (See the figure below.) A second force  $\vec{F}_2$  of magnitude 5.00 units acts on the object in the direction of the positive y-axis. Find graphically the magnitude and direction of the resultant force  $\vec{F}_1 + \vec{F}_2$ .

magnitude  units

direction   $^\circ$  counterclockwise from the +x-axis



Need Help?

#### Assignment Details

Name (AID): Chapter 1 Homework (15139855)

Submissions Allowed: 6

Category: Homework

Code:

Locked: Yes

Author: Cogdill, Cory ( [Cory.Cogdill@roswell.enmu.edu](mailto:Cory.Cogdill@roswell.enmu.edu) )

Last Saved: Jan 23, 2020 11:10 AM MST

Permission: Protected

Randomization: Different every time

Which graded: Question Part

#### Feedback Settings

Before due date

Question Score

Assignment Score

Publish Essay Scores

Question Part Score

Mark

Add Practice Button

Help/Hints

Response

Save Work

After due date

Question Score

Assignment Score

Publish Essay Scores

Key

Question Part Score

Solution

Mark

Help/Hints

Response

**PSYC-2310**  
**Drugs and Behavior**

**Literature research on drugs in society**

**Assignment type:** individual literature search based essay.

**Topic:** This literature research essay should compare different approaches to managing the drug problem focusing on a specific outcome. Some examples for comparison are shown below. If you do identify your own topic of interest, that is fine but check it for suitability with the instructor first.

- Harm reduction for drug users. How effective is the prohibition and punishment policy in the USA for harm reduction? Portugal is a good contrast, where a decriminalization and treatment approach replaced prohibition and punishment.
- Harm reduction for society. What are positive and negative consequences for society of a prohibition and punishment policy in the USA ? Or, what are positive and negative consequences for society of a decriminalization and treatment approach in Portugal. Consider the effect on number of problem drug users, drug related crime, drug trafficking violence and corruption, \$ cost of managing the drug problem this way.
- Treatment effectiveness. Compare two clinical approaches to treating individuals with a drug problem considering relapse rates, potential for such programs to be made widely available (is cost or need for expert personnel prohibitive?).

**Structure and content:** Use the rubric to ensure you have the required content. Expectation is a minimum of 1500 words.

**Feedback:** The instructor can provide feedback on essay structure and content before your final submission.

**Grading:** This research essay is worth 20% of your final grade so make your best effort and do take advantage of getting feedback before the final submission deadline. The following rubric will be used for grading.

Assignment component	Guidelines	Proportion of grade (%)
Organization	Follows a logical sequence from introduction through the series of points/comparisons/arguments, to conclusions	10

Statement of the problem	Clearly states what the problem is	10
Points of comparison  Five distinct points of comparison  Up to 10 points per comparison	Clearly details an argument for and against a specific system/approach, using evidence to justify position and for recommending alternatives.	50
Length	1500 words or more?	10
Writing	Writes in their own words. Uses clear language. Explains acronyms. Avoids use of jargon.	10
Bibliography	Uses and cites peer-reviewed research as sources	10

## CJUS 2140- Criminal Investigations

Choose a court case in the United States court system that you are interested in. Compose a five-page (not including Works Cited page) research paper on the topic. Provide details on evidence collection or factual materials on the case you selected. Utilize your textbook and website readings to form an argument. Discuss events of the case, including police investigative information. Provide explicit details of the case and your assessment of the evidence collection process. Provide an argument as to whether evidence collection and pre-trial procedures were fair and just. You must include a thesis, summary of the criminal case, argumentation and supporting evidence. Be sure to cite all resources. Your grade will be based on format, introduction, conclusion, paragraph structure/transitions/organization, development, language and mechanics.



## CJUS 2140- Criminal Investigations Rubric

- 20 % Format (heading, margins, header, citations, etc.)
- 20 % Introduction (clear thesis & introductory summary)
- 10 % Conclusion (sense of finality)
- 10 % Paragraph Structure/Transitions/Organization
- 15 % Development (quality of discussion/analysis/essay length)
- 10 % Language (coherence, word usage/choice)
- 15 % Mechanics (grammar, punctuation, spelling)

## Lab 3: Counting by Measuring Mass

### Purpose

Determine the mass of several samples of chemical elements and compounds and use the data to count atoms.

### Procedure

Start *Virtual ChemLab* and select *Counting by Measuring Mass* from the list of assignments. The lab will open in the Calorimetry laboratory.

### Part 1, Measuring Metal

1. Click on the *Stockroom*. Click on the *Metals* sample cabinet. Open the top drawer by clicking on it. When you open the drawer, a petri dish will show up on the counter. Place the sample of gold (Au) in the sample dish by double-clicking on it. *Zoom Out*. Double-click on the petri dish to move it to the stockroom counter. Click the green arrow to *Return to Lab*.
2. Drag the petri dish to the spotlight near the balance. Click on the *Balance* area to zoom in. Drag the gold sample to the balance pan and record the mass in Table 1.
3. Click on the red disposal bucket to clear the lab after each sample. Repeat for lead (Pb), uranium (U), sodium (Na) and a metal of your choosing.

Table 1

	Gold (Au)	Lead (Pb)	Uranium (U)	Sodium (Na)	Your Choice
Mass (Grams)					
Molar Mass (g/mol)					
Moles of each element					
Atoms of each element					

### Analyze

1. Calculate the moles of Au contained in the sample and enter into Table 1.
2. Calculate the atoms of Au contained in the sample and enter into Table 1.
3. Repeat steps 1 and 2 for the other metals and fill in the table. Clear the laboratory when you are finished by clicking on the disposal bucket.

## Part 2, Measuring Compounds

1. Click on the *Stockroom*. Double-click on sodium chloride (NaCl) on the Salts shelf. The right and left arrows allow you to see additional bottles.
2. *Return to Lab*. Move the sample bottle to the spotlight near the balance area. Click on the *Balance* area to zoom in and open the bottle by clicking on the lid (*Remove Lid*). Drag a piece of weigh paper to the balance pan and *Tare* the balance.
3. Pick up the *Scoop* and scoop out some sample: as you drag your cursor and the scoop down the face of the bottle it picks up more. Select the largest sample possible and drag the scoop to the weigh paper until it snaps in place which will place the sample on the paper. Record the mass of the sample in Table 2.
4. Repeat steps 1-3 for table sugar (sucrose,  $C_{12}H_{22}O_{11}$ ),  $NH_4Cl$ ,  $C_6H_5OH$  (phenol), and a compound of your choice. Record the mass of each sample in Table 2.

**Table 2**

	NaCl	$C_{12}H_{22}O_{11}$	$NH_4Cl$	$C_6H_5OH$	Your Choice
Mass (grams)					
Molar Mass (g/mol)					
Moles of each element					
Atoms of each element					

### Analyze

1. Calculate the moles of  $C_{12}H_{22}O_{11}$  contained in the sample and record your results in Table 2.
2. Calculate the moles of each element in  $C_{12}H_{22}O_{11}$  and record your results in Table 2.
3. Calculate the atoms of each element in  $C_{12}H_{22}O_{11}$  and record your results in Table 2.
4. Repeat steps 1-3 for the other compounds and record your results in Table 2.
5. Which of the compounds contains the most total atoms?

### Thinking Outside the Box:

1. Compare and contrast atomic weight ratios and the number of moles.
2. Some people value gold and silver above other elements because of their rare accessibility and value. How does this sometimes get misunderstood with some people valuing other people based on their material worth?
3. If you could develop an inference on this lab, what would it be?

## Perguntas sobre o filme *Cidade de Deus* (disponível na Netflix)

Favor pensarem e responderem as seguintes perguntas sobre o filme “Cidade de Deus”. O que é importante é sua opinião. Vamos compartilhar suas respostas na aula depois do recesso de primavera. Favor consultarem o glossário abaixo, também.

## Questions about the film *City of God*

While watching the film, please think of the possible answers to the questions below. These are discussion questions, so what matters is your opinion. We will share these in class after Spring break. The questions are followed by a glossary to help you better understand what is being asked.

1. O que é uma favela?
2. Como surgiu a favela “Cidade de Deus”?
3. Qual é o tema principal (quais são os temas principais) do filme “Cidade de Deus”?
4. Qual é o papel do Buscapé (Rocket) no filme “Cidade de Deus”? O que ele quer fazer, qual é o sonho/plano (quais são os sonhos/planos) dele?
5. Descreva a transformação do personagem Dadinho (Lil’ Dice) em Zé Pequeno (Lil’ Zé). O que aconteceu com Dadinho, por que ele começou a envolver-se com o tráfico de drogas?
6. Por que o personagem Mané Galinha (Knockout Ned) se envolveu com os traficantes de drogas?
7. Você acha que a realidade do filme reflete a realidade do resto do Brasil?
8. Você acha que a violência representada no filme existe só no Brasil ou em outros países, também?

## Glossário:

**surgiu** – emerged, (the Preterit form, 3<sup>rd</sup> person singular, of the verb *surgir* – *to emerge, to arise*, e.g., about an idea/concept/doubt)

**o tema principal** – the principal theme

**envolvido** – involved (from the verb *envolver* – *to involve, envolver-se* – *to involve oneself*)

**envolveu-se** – involved oneself (the Preterit form, 3<sup>rd</sup> person singular, of the verb *envolver-se* – *to involve oneself*)

**o tráfico de drogas** – drug trafficking

**descreva** – describe (the imperative form of the verb *descrever* – *to describe*)

**o papel** – in this context: role, function

**o sonho** – dream

**o/a traficante de drogas** – drug-dealer

**a transformação** – transformation

**o/a personagem** – character (e.g., in a film/book)

**a classe econômica** – social class, (e.g., *classe média-baixa* – *lower-middle class*)

**reflete** – reflects (the Present form, 3<sup>rd</sup> person singular, of the verb *refletir* – *to reflect*)

**aconteceu** – happened (the Preterit form, 3<sup>rd</sup> person singular, of the verb *acontecer* – *to happen, to occur*)

**existe** – exists (the Present form, 3<sup>rd</sup> person singular, of the verb *existir* – *to exist, conjugates in the same way as the verb “assistir”*)

**só** – in this context: only, just

# Down Syndrome Assignment

Learning Outcome: Explain how information provided in this course can be applied to life in the real world.

Assignment Length: 3 -5 typed double space pages

Style: APA; list your resources used other than class information

Due Date: Two weeks from today's Instructor's Presentation of the Assignment

Use the information already covered in our PSYC 1110 course and then further Research the characteristics and lifestyle of a Down Syndrome person. Your assignment is to describe a typical three-day period for you if you had Down Syndrome. You would be the actual person, so you would be your current age, have your actual family, and live in your current town. This paper is to include, but not be limited to; family interactions, possible job, friends and social interactions, going to the store, pets, hobbies, how you deal with certain frustrations, what makes you happy, what makes you sad, what make you mad, and what do you think about. Once you have completed the included body of information, you are to include one to three paragraphs of the impact on this assignment to help you better understand Down Syndrome Persons and their lives. Have fun with this assignment.

To help prepare you for the assignment watch the following video: [Down Syndrome](#)

## ENG 201 C Introduction to Drama

### *Essay Assignment Due Week 10*

Gender roles and the mechanics of 'conflict'.

Your finished essay should be approximately four to five double-spaced pages, not counting your 'Works Cited' page.

Choose one female or male character from *Much Ado About Nothing*. Referencing specific passages from the play, analyze how the character's gender is articulated by the character him or herself, by other characters, and by the structure of the play. If the character breaks with gender norms, is that transgression celebrated, valorized, punished, condemned, or met in some mixed way? If the character conforms to gender norms, how does the play treat that conformity?

Secondarily, briefly consider a different character who inhabits the opposite end of the spectrum – (So, if your primary subject is a female character who defies the gender norms, look for a male character who largely conforms to those stereotypes). How are they positioned within the play? Are they performing oppositional or complimentary roles? What is the nature of their dramatic (character) and rhetorical relationships? Which has the more significant role? (Remember, this does not always mean the most lines).

In defining gender norms, you are welcome to consider both Elizabethan and modern expressions but be sure that you keep them clearly delineated within your discussion. Your task is not to provide a comprehensive reading of the play, but to create a thesis driven argument about how gender is articulated through one of its characters. You are welcome to elaborate on your personal reactions to the play, but keep in mind that opinions do not replace interpretation. For this paper, feel free to consult and appropriately cite any of the critical materials we have read so far. However, I prefer that you not use outside sources to develop your ideas or when writing this essay. Any additional sources you do happen to consult – whether from our in-class readings or not – must be appropriately documented using MLA format. Failure to acknowledge others' words, ideas, or organizational patterns may result in plagiarism.

## MUSC 1415 - MUSIC CONCERT REVIEW & CRITIQUE

In order to fulfill the assignment, you must attend an approved fine arts musical concert. The following are the structural elements to be contained within the paper, format of the paper and grading considerations.

### Structural Elements:

#### Get the Facts (0-15 Points):

- Name of the artist / ensemble
- Title of event / subject matter
- Date and location of event
- Size of ensemble and audience

#### Analyze (0-15 Points):

- Review the various aspects of the concert event and how they fit together aesthetically.
- Consider the ensemble and how it generally contributes to the individual selections within the concert.
- How does the ensemble influence the expression of the various individual compositions?
- Drawing upon your knowledge of music history, define how the musical selections fit into the time period in which they were created.
- Discuss the musical form of the individual works.

#### Evaluate (0-15 Points):

- Discuss the overall composition of the concert event.
- How was the musical material programmed? Did the material cohesively flow from one selection to the next?
- How were the program and ensemble musically effective?

#### Personal Opinion (0-15 Points):

Support your opinions utilizing terminology and understanding of music gleaned from information covered in this course.

- Provide your opinion and impression of the event.
- What were the specific aspects of the concert that you liked or disliked?
- What did you learn?
- Why did you select *this concert event* to attend?

#### Format (0-15):

Must be proofed at the "Writing Lab" prior to submission or they will receive a "0" grade.

- Papers will be at least 1 page in length, but not more than 2, with a minimum of two reputable sources recorded in an APA format (References will be appropriately cited throughout the paper).
- Papers will be single-spaced in a block format; double space between paragraphs; Garamond-12 font; and 1" margins on all sides.
- Attach a ticket stub and/or printed program.

#### Grading Considerations:

- Accuracy of the content and connectivity of the concert material to era and/or culture
- Support of your opinion of the event – Beyond "I like it"
- Readability of paper – No fragments; run on sentences; or unsupported pathways to nowhere
- Following defined format and site source quotes and concepts appropriately within the paper
- Composition, spelling, punctuation or other general errors





**Part I. Identification**

Identify four characters, events, or passages from our readings from the choices given below. Provide as much factual data as you can. Then, in one well-written paragraph each, discuss the significance of the person, event, or idea – and perhaps how it relates to a specific cultural identity or tradition.

- A. Enheduanna
- B. The stele of Hammurabi
- C. *Ramayana*
- D. Hesiod
- E. Herodotus
- F. *Mahabharata*
- G. *Iliad*
- H. Josepus/Matthias
- I. *Talmud*
- J. *Book of the Dead*
- K. The Hundred Schools of Thought
- L. *I Ching*

**Part II. Short Answers**

In several well written paragraphs, respond to two of these four questions:

- A. Describe/discuss the character and significance of Inanna. What are some of the aspects of her persona which manifest in later pantheons?
- B. Who was Valmiki? What evidence is there for his actual existence, and what is his role within his own works?
- C. Compare the different beliefs about death/rebirth/afterlife among two of the cultures we have looked at.
- D. As best you can, explain the argument for The JEDP Theory (also referred to as the 'Four Authors' theory).

### **Part III. Analysis Essay (600 – 1200 words)**

Compare and contrast the versions of the ‘Story of the Flood’ as conveyed in The Epic of Gilgamesh and the Old Testament. (You may wish to reference the ‘Atrahasis Epic’ and/or the ‘Eridu Genesis’ as well, but these will not be your central texts). Consider the cultural and moral imperatives behind each story. How does each address the relationship between man and god and/or the purpose of suffering? You may wish to frame your comparisons in the context of similarities and differences between monotheistic and polytheistic world views.

## CJUS 1110- Introduction to Criminal Justice Assignment

Choose a court case in the United States court system that you are interested in. Compose a five-page (not including Works Cited page) research paper on the topic. Provide details on evidence collection or factual materials on the case you selected. Utilize your textbook and website readings to form an argument. You must provide an argument as to whether evidence collection and trial procedures were fair and just. You must also provide details about the case by discussing events of the case, the prosecution of the case and sentencing. Provide explicit details and assess the entire criminal justice process. Be sure to cite all resources. Your grade will be based on format, introduction, conclusion, paragraph structure/transitions/organization, development, language and mechanics.

## CJUS 1110- Introduction to Criminal Justice Assessment Rubric

20 %	Format (heading, margins, header, citations, etc.)
20 %	Introduction (clear thesis & introductory summary)
10 %	Conclusion (sense of finality)
10 %	Paragraph Structure/Transitions/Organization
15 %	Development (quality of discussion/analysis/essay length)
10 %	Language (coherence, word usage/choice)
15 %	Mechanics (grammar, punctuation, spelling)

## **Assignment / ARTH 2110: History of Art I**

### **LIVE ART REVIEW**

Due to the Covid-19 virus shutting down all entertainment and museums, it will be difficult for many of you to complete this assignment. To help you with that, I am attaching VIRTUAL TOUR LINKS to museums that you can still accomplish the below assignment. The due date for this will be the Friday of Week 16, MAY 6th still. If you have questions, please let me know:

<https://www.nationalgallery.org.uk/visiting/virtual-tours/google-virtual-tour>

<https://www.louvre.fr/en/visites-en-ligne>

[https://artsandculture.google.com/streetview/solomon-r-guggenheim-museum-interior-streetview/jAHfbv3JGM2KaQ?hl=en&sv\\_lng=-73.95902634325634&sv\\_lat=40.78285751667664&sv\\_h=100.63659236884682&sv\\_p=0.0000021305855234098357&sv\\_pid=MfnUmHRyOSzMtY3vtYU05g&sv\\_z=0.13858257768272864](https://artsandculture.google.com/streetview/solomon-r-guggenheim-museum-interior-streetview/jAHfbv3JGM2KaQ?hl=en&sv_lng=-73.95902634325634&sv_lat=40.78285751667664&sv_h=100.63659236884682&sv_p=0.0000021305855234098357&sv_pid=MfnUmHRyOSzMtY3vtYU05g&sv_z=0.13858257768272864)

Hello All,

**You are responsible for 2 response papers to the book's works and 1 Art Gallery paper in 3 documents in all this semester.** You will be responsible for visiting a museum, art gallery, or art showcase and writing a compare and contrast paper. There is no way to appreciate art from the book thoroughly. You need to go and experience it for yourself. I will not accept any paper about art or a museum visit you went to in the past. You will need to provide the date, time, place, and any other proof of attendance.

Now you can attend any Museum, Art Gallery, ShowCase, or Street Art vendor you choose. I will not allow any papers that are commenting on K-12 art; please visit someplace with PROFESSIONAL art you can have a much broader discussion about.

When you compare the two pieces within the museum, utilize all the key factors we have learned within the art course, such as Movement, Unity, Harmony, Variety, Balance, Contrast, Proportion, and Pattern? What are the elements such as Texture, Form, Space, Shape, Color, Value, and Line- you must touch on all of these as well as the following questions:

- Who is the artist?
- What is the medium he/she is using?
- What is the historical significance of the two pieces, how do those two histories counter, collage, or mesh one another?
- What do you notice first?
- Why do you notice it?
- What is the second thing you notice?
- Why?
- What feelings do you get from work?
- Why?
- What do you think were the intentions of the artist?

- Were the intentions obvious or obscure?
- 

Here in Roswell, NM, we have TWO museums that you can visit; they are both FREE. We also have a national artist in residency that has existed since the 1970s. The links are below. I will not tell you what to choose, but you will need to use terminology from the book within your paper and use any other sources you may find to support your comparison and contrast for this assignment.

Links to the Roswell NM Museums:

The Anderson Museum of Contemporary Art <http://roswellamoca.org/>

Roswell Museum and Art Center: <http://roswell-nm.gov/308/Roswell-Museum-Art-Center>

POLS 2160

Discussion Posts:

This is your task for Week 11

Given that the Coronavirus has interrupted our life, we should talk to about it.

1. Go to the New Mexico Governor website. Find the Executive Orders and Public Health Orders that have been implemented since the health threat. Offer some discussion on how effective the orders are working.
2. Do we need more or fewer restrictions?
3. What can be implemented to make it easier on the people of New Mexico.
4. Offer some solutions that might help the national crisis-both in our state and the country.

Don't forget Week Quiz 11

Your task for this week 12.

1. Define 'Shadow Government'.
2. Find some research on how our state's relationship with the Federal Government. In what ways do we have a good or bad relationship?
3. During the Coronavirus health crisis, has the Federal Government imposed rules and regulations or have they largely left us to make our own decisions? Give me some examples.

Respond to 3 classmates!

Don't forget Week 12 Quiz!



**Case Study 1:****COVID-19 Vaccine Trials in US Prisons**

Due: Mon. 9/14 (before class)

Prompt: As expert in biomedicine and philosophy (how impressive!), you are a member of an ethics taskforce for the National Academy of Medicine (NAM). The US Department of Health and Human Services has requested that the NAM provide ethical guidance for the pharmaceutical industry in its clinical trials on COVID-19 vaccines. While the US government is trying to expedite the development of safe and effective vaccines (Operation Warp Speed), your report focuses on the various ethical issues with the pandemic that deserve important consideration.

Currently, your team is working on the chapter about vaccine trials in prisons. In the US, the largest outbreaks have been in correctional facilities, and the rate of infection among incarcerated people is over five times higher than the general population. Furthermore, the rate of spread is much higher within prison than outside them. This puts prisoners at higher risk, as well as prison guards, doctors, and social workers. There are several reasons for these disparities: prisoners are often confined and overcrowded, rendering social distancing impossible. In addition, prisons have poor sanitary conditions, with prohibitions on alcohol-based hand sanitizer and limited access to hand-washing stations.

Furthermore, correctional facilities have a disproportionate number of marginalized groups with poor health, including disabled people, poor people, and people of color—all of whom face higher risks of diabetes, hypertension, and cardiac disease. These marginalized groups are overrepresented in prisons largely because of structural inequalities and uneven practices of policing (such as racial profiling), the criminalization of poverty (such as anti-homelessness ordinances), and the lack of social services (such as reductions in public housing for disabled people). Your report dedicates an earlier chapter to the disproportionate impact of the virus on disabled, poor, Black, Latinx, and Native American populations. Of particular concern here regarding race are reports of vaccine trials in early August suggesting that people of color are substantially underrepresented in the samples of trials. Furthermore, no genetic or biological factors are currently associated with the disease, so the report concludes that most racial disparities are of social and structural cause.

Your task force is currently deliberating over whether the federal government ought to allow, or even encourage, vaccine trials in correctional facilities because prisoners are at such high risk of contracting and dying from infections. Accordingly, a vaccine may directly benefit them. However, since the publication of the Belmont Report (1979), there has been a moratorium on research in correctional facilities. These restrictions came from the recognition that many incarcerated people were often enrolled without their consent, knowledge of the trial, and oversight by the federal government. Issues of exploitation are of particular concern for those with less resources and social power and with cognitive disabilities.

As the member of this task force, you need to make a proposal to your team about whether you think vaccine trials ought to be allowed in prisoners and why, especially on ethical grounds. In

addition, you should explain the conditions (if any) under which clinical trials in prisons could proceed in an ethical manner (even if these would not be satisfied here).

Instructions: Case studies should include the following three elements: (1) Make an argument (claim, judgment, and grounds) as to whether it is morally acceptable or not to allow COVID-19 vaccine trials in correctional facilities. Ground your judgment on ethical reasons, such as from class and the readings. (2) Explain what conditions need to be fulfilled for such a trial to be ethically acceptable, and connect these with your argument. This will show how the trial should proceed to fulfil ethical requirement, or it will show how it cannot proceed ethically. (3) Discuss the strengths and weaknesses of your argument, such as raising and responding to objections or providing additional grounds for your argument.

Papers must be *at least* 2 full pages, with double spacing, 12-point font, and 1-in margins. This paper is 7.5% of your final grade. Students should use techniques from skill workshop 1 on logic to convey their arguments. Papers will be graded according to three criteria: completeness, clarity, and resourcefulness.

1. Completeness (5 points):
  - a. Length: 2 full pages (not including citations)
  - b. Structure: Contains the following 3 elements:
    - i. An ethical argument, with a clear judgment (for/against) and grounds (ethical reasons and empirical support)
    - ii. Discussion of conditions for an ethical trial, with a clear judgment and ethical grounds, and connections to the argument
    - iii. Discussion of strengths and weaknesses, such as objections, responses, counterarguments, and additional supporting arguments
2. Clarity (3 points)
  - a. Position and judgment
    - i. Coherence and consistency throughout
    - ii. Intelligibility throughout
  - b. Logic
    - i. Appropriate use of grounds
    - ii. Well targeted objections and responses
    - iii. Avoids logical fallacies
3. Resourcefulness (2 points):
  - a. Able to deal skillfully with new situations and their nuances
  - b. Skill use of ethical grounds for arguments, including
    - i. Ethical principles and guidelines
    - ii. Other moral and practical considerations
    - iii. Strengths and weaknesses of an approach
    - iv. Different stakeholders

Late paper policy: For essays and papers, a late penalty of 1% per day (out of the assignment's 100 total points) is imposed on papers submitted after the due date without legitimate excuse. For instance, a paper turned in 10 days late has a starting grade of 90%. For papers late by over 3 weeks, students are responsible for contacting the professor to arrange a plan for completion.

## **Research Paper Assignment**

### *Learning Objectives:*

*For students to understand the content or meaning of a work of art through a sociocultural lens, effectively gather evidence and use Chicago Manual Style correctly.*

Your research should focus on the artworks historical and biographical context, including its stylistic period or culture, iconography, biography of artist (if relevant), and media. To present this information, use scholarly tone, appropriate vocabulary, Chicago Manual Style for citations and your annotated bibliography.

### **Pre-Paper Research**

1. Choose from one of the approved artworks (15<sup>th</sup> century European art through Contemporary art) in LMS
2. Search for resources
3. Formulate your Thesis Statement
4. Read your resources
5. Create an annotated bibliography of your resources

### **Writing Annotated Bibliography**

- An annotated bibliography is a list of citations including, books, articles and document. Each of the citations is followed by a brief description and evaluative paragraph of about 150 words, this is the annotation
- The point of creating an annotated bibliography is to inform the reader of the relevance, accuracy, and quality of your sources

### **Research Paper**

- 3-4 pages (not including header information)
- 12 point font
- Double spaced
- 1 inch margins
- Formatting in Chicago Manual Style

## **Group Comparative Paper**

*Learning Objectives: For students to work and communicated successfully in a group setting to quantify similarities between artworks including their media, and content or meaning.*

The group comparative paper should address the media of your works, the formal elements of the work and content of your artworks. This paper should also address the different ways in which the artworks content functions socially and/or culturally. The paper should be written in scholarly tone using Chicago Manual Style for citations. Each group member must turn in a copy of the group comparative paper with an additional paragraph stating your personal reflection.

### **Group Discussions**

1. Read all of the group member's papers by accessing them in LMS.
2. As a group come together to discuss and make notes about your papers and art objects
3. Specifically discuss the following:
  - a. Compare the cultures and artists who created the works
  - b. Compare the time periods the pieces were made in and how that relates to their meaning
  - c. Compare how the mediums are used to best express the contexts of the works of art, does one medium seem to work better than another, do two media equally express the same message, ect.
4. Through your discussion and notes, write a group paper addressing these issues

### **Personal Reflection Paragraph**

You should address the following questions in your personal reflection:

- Considering the cultures researched by your group, how does your experience of art and content (meanings) of the works compare?
- How did the content (meaning) address pertinent issues with in the society or culture?
- How has the art's content (meaning) shaped your worldview compared to your group's cultural research?
- Do you feel the content of your work has a civic responsibility within the community?

### **Group Comparative Paper**

- 1 – 2 pages
- 12 point font
- Double spaced
- 1 inch margins
- Formatting in Chicago Manual Style

**The day the assignment is due, you will fill out a Team Assessment**

<b>Sample Rubric</b>				
	Novice (1)	Emerging (2)	Developing (3)	Proficient (4)
<b>Communication</b>				
Written work is appropriate for audience, intent, and context				
Group communication is appropriate for interpersonal communication, intent and context				
<b>Critical Thinking</b>				
Formulation of a Thesis statement				
Relevant information is identified to address the Thesis statement				
Acquisition of evidence and evaluation of evidence				
Response develops to a conclusion that reflects an informed argument				
<b>Personal and Social Responsibility</b>				
Small groups complete group essay to include a variety of social and cultural relationships				
Evaluation of personal and social justice issues are relative to the context in which they are being used				
Evidence is based on organizational, cultural, economic, biographical or political factors of local or global problems				
Compares multiple ways in which artists have addressed a problem				

## Assignment / ENGL 2640 – British Literature II

### **Final Essay**

Read carefully through the following seven “Possible Thesis Statements” for an essay about Christopher Marlowe’s play, *The Tragical History of Doctor Faustus*.

Then, write a four-page essay in MLA format in which you argue for one of the seven thesis statements. You can either use the entire thesis statement that you choose word-by-word, or you could paraphrase it in your own words.

In order to help you think about the play more deeply, and to support your essay’s argument and credibility, you must incorporate at least one scholarly journal article into your essay. Use our library’s online databases to search for journal articles that discuss Marlowe’s Doctor Faustus, or a related issue in your essay, and find (at least) one to use in your own essay as a secondary source.

Since you are using MLA format for this essay, you’ll need to include MLA in-text citations and a Works Cited entry for the journal article and the play itself. Your textbook is an “anthology,” so when you’re looking up how to cite the play in your essay, look in a guide for the format to cite “a work in an anthology.” Also, be aware that your MLA Works Cited page does not count as one of your four required pages.

### *Possible Thesis Statements*

1. Doctor Faustus is the tragedy of a man who in striving boundlessly misdirects great gifts of mind and spirit and hence he progressively loses his soul by disintegration as well as by capture.
2. Marlowe’s Faustus is a martyr to everything that the Renaissance prized-- power, curious knowledge, enterprise, wealth, and beauty.
3. Faustus is no ordinary sinner, but rather an impenitent and willful miscreant.
4. The only knowledge which Faustus achieves is of the chimerical, of phantasm, of false shows and masquerades, of cheap tricks and dumb shows.
5. Marlowe’s play is primarily a study of the mind of Faustus himself: a psychomachia dramatizing the internal and simultaneously eternal battle between good and evil -- in Faustus and in all of us.
6. Instability is fundamental in Doctor Faustus, as a theme and as a characteristic of Faustus himself. Doctor Faustus is a play of violent contrasts within a rigorous structural unity. Hilarity and agony, seriousness and irresponsibility, the extremes of optimism and depression,

enthusiasm and hatred, commitment to Hell and aspiration to Heaven, pride and shame -- these are the swings of the pendulum in Faustus' world.

7. The great reversal from the first scene of Doctor Faustus to the last can be defined in different ways: from presumption to despair, from doubt of the existence of hell to belief in the reality of nothing else, from a desire to be more than man to the recognition that he has excluded himself from the promise of redemption for all mankind in Christ, from haste to sign the bond to desire for delay when the moment comes to honor it, from aspiration to deity and omnipotence to longing for extinction.

## **COMM 2120: Interpersonal Communication Critical Thinking Essay**

### **Analysis of an Interpersonal Conflict**

Select one significant conflict inside an interpersonal relationship to analyze. The conflict should not have ended well. The relationship can be with a family member, friend, romantic partner, or work colleague.

### **Structure of Your Essay**

**Introduction.** Take a paragraph to lay the foundation for the role of conflict in interpersonal relationships in general. Only briefly introduce the relationship you will analyze and the basic nature of its conflict. End this paragraph with a thesis. The thesis should be a statement of what you learned about yourself and/or your partner because of this one conflict.

#### **Main Point 1: Describe the Relationship.**

Describe the relationship more fully. Although you can give a short narrative, remember to think critically about the relationship in terms of course concepts. You might want to refer to relationship theory and to research relevant to the particular type of relationship (friendship, romance, family, workplace).

#### **Main Point 2: Describe and Define the Conflict.**

A. Describe what the conflict was about at the surface level. Think critically: how did it meet Wilmot & Hocker's definition of interpersonal conflict: interdependence; expressed struggle, incompatible goals, scarce resources, interference in obtaining goals.

B. Analyze the conflict for underlying issues. Conflict is like an onion; the disagreement was about something on top, but if you peel away layers, there are additional dissatisfactions and old wounds. For example, beneath the apparent subject of the conflict, there might be other issues involved, such as identity, the needs/imbbalances inside the relationship, or inequity in power and decision making.

#### **Main Point 3: Identify and Analyze Conflict Styles.**

Using Wilmot & Hocker's conflict styles research, what conflict styles did you and your partner use to manage this particular conflict? Were there incidents of unfair fighting: name-calling, blaming, gunny-sacking, steamrolling, aggressive behavior? Illustrate with specific examples. What were the results? How did the conflict end?

#### **Main Point 4: What if You Could Do It Over?**

Imagine that you could go back and solve the conflict again; what would you do differently? What goal would you want to achieve for this conflict and its relationship? What strategies would you use? Apply Jack Gibbs' supportive and



defensive communication behaviors and other recommendations from Chapter 11: Managing Conflict and Power.

**Conclusion.** Summarize your main points and restate the thesis. Leave the audience with something significant to think about in terms of conflict and relationships.

**Requirements:**

- **Structure:** use the specified organizational pattern.
- **Length:** the essay should be 4-5 typed pages, double-spaced.
- **Format:** follow MLA requirements: double-spacing, 12 point Courier or Times New Roman font, 1-inch margins.
- **Research:** you must refer to your experiences with the relationship, to the results from the Wilmot & Hocker conflict styles instrument, and to the research in your textbook. Additionally you may refer to sources from the SFCC data bases and approved web-based podcasts, video presentations, documentaries, and periodicals.
- **Citation:** use MLA in-text, parenthetical citation and include a Works Cited page.

Sample rubric for assessing critical thinking.

<b>CRITICAL THINKING RUBRIC</b>			
<b>Component Skill</b>	<b>Emerging</b>	<b>Developing</b>	<b>Proficient</b>
<b>Problem Setting:</b> Delineate a problem or question.	Students state problem/question appropriate to the context.	Students state and define an open ended problem/question appropriate to the context.	Students state, define, and describe components of an open ended problem/question appropriate to the context.
<b>Evidence Acquisition:</b> Identify and gather the information/data necessary to address the problem or question.	Students gather evidence addressing the problem/question from a mix of sources.	Students gather evidence addressing the problem/question from sources appropriate to the context while demonstrating some awareness of acquisition process, including personal assumptions.	Students gather an appropriate scope and depth of evidence sufficient to address a problem/question in context while demonstrating awareness of acquisition process, including personal assumptions.
<b>Evidence Evaluation:</b> Evaluate evidence/data for credibility (e.g. bias, reliability, validity), probable truth, and relevance to a situation.	Students are able to describe appropriate sources.	Students are sometimes able to evaluate credibility and relevance of sources in addition to demonstrating some awareness of the evaluation process, including personal assumptions.	Students are able to evaluate credibility and relevance of sources in addition to demonstrating an awareness of the evaluation process, including personal assumptions.
<b>Reasoning/Conclusion:</b> Develop conclusions, solutions, and outcomes that reflect an informed, well-reasoned evaluation.	Students can sometimes identify common logical flaws. Students can sometimes describe weak and strong arguments.	Students can identify common logical flaws. Students can sometimes differentiate weak and strong arguments. Students can sometimes identify and employ evidence and reasoning to build an argument and reach probable conclusions/solutions based on the evidence.	Students can identify common logical fallacies. Students can differentiate weak and strong arguments. Students can identify and employ evidence and reasoning to build an argument and reach probable conclusions/solutions based on the evidence.

**Clovis Community College**  
**MATH 2430 – Discrete Mathematics – Section 301**  
**Fall 2021**

**INSTRUCTOR:** Brandon J. Finney  
**OFFICE:** Faculty Office 4, Room B (403-B)  
**OFFICE PHONE:** (575) 769-4933  
**MESSAGE PHONE:** (575) 769-4945 (Faculty Office 4 Secretary)  
**OFFICE HOURS:** TBA  
**E-MAIL:** brandon.fnney@clovis.edu

**TEXTBOOK:**

This course uses *A Discrete Transition to Advanced Mathematics* by Bettina and Thomas Richmond. The ISBN for the book is 0-534-40518-5.

**MATERIALS REQUIRED:**

For this course, students should have the following:

1. Access to the textbook (see above)
2. Scientific Calculator (optional)
3. Spiral/Notebook/Paper to take notes
4. Pencil and Eraser – Students should avoid using pen in this course
5. Graph paper

**COURSE DESCRIPTION:**

An introductory course encompassing set theory, logic, induction, number theory, matrices, combinatorics, graph theory, trees, and models of computation.

**COURSE OBJECTIVES:**

Students that successfully complete the course will, by the end of the course, be able to:

- a. Mathematical Logic and Mathematical Reasoning
  1. Know what propositions are and how to obtain their truth values.
  2. Be able to test for propositional equivalences using truth tables.
  3. Be able to work with predicates and quantifiers and give their truth values.
  4. Be able to prove and/or disprove basic results involving integers utilizing direct methods, contradiction, contra position and/or counter example.
  5. Be able to prove results using mathematical induction.
- b. Elementary Set Theory & Integer-Valued Functions
  1. Be able to construct sets from basic properties and test for set membership.
  2. Be able to perform the basic operations on sets including union, intersection, and complementation.
  3. Understand the meaning of cardinality of finite sets and certain infinite sets.
  4. Be able to represent sets using bit strings.
  5. Be able to evaluate integer-valued functions.
  6. Be able to find the nth term of sequences given by formulas or by recurrence relations.
  7. Be able to find the sums of finite series.
- c. Factorization, Prime Numbers, Modular Arithmetic, and Matrices
  1. Be able to apply prime factorizations of numbers to find greatest common divisors and least common multiples.
  2. Be able to use the Euclidean algorithm to find greatest common divisors.
  3. Be able to use modular arithmetic in applications.

4. Be able to add, subtract, and multiply matrices.
5. Be able to perform basic operations and Boolean products for zero-one matrices.
- d. Binary Systems
  1. Be able to convert decimal representations to binary and vice-versa.
  2. Be able to perform basic arithmetic in binary representation.
  3. Be able to convert binary representation to octal and hexadecimal representations and vice-versa.
- e. Combinatorics & Basic Probability
  1. Be able to perform basic counting arguments involving addition and multiplication.
  2. Be able to use the pigeon-hole principle.
  3. Be able to solve basic problems involving permutations and combinations.
  4. Be able to calculate elementary discrete probabilities.
- f. Graph Theory
  1. Be able to identify certain basic types of simple graphs (i.e., complete, cycles, bipartite, etc.)
  2. Be able to construct graphs from adjacency matrices and incidence matrices and vice versa.
  3. Be able to identify when certain types of graphs are isomorphic.

### **ATTENDANCE REQUIREMENTS:**

Attendance is required at all sessions in each course. When circumstances make attendance impossible, you should notify the instructor of your absence. You are responsible for making sure you are caught up with the class lectures and assignments, so you're able to attend the next class session prepared.

### **WITHDRAW:**

If you are unable to attend the required sessions or complete the assignments and quizzes/tests successfully for a course, you should withdraw from the class after you have spoken with your instructor and academic advisor. **Instructors do not withdraw students.** Dual credit students must contact their high school counselor.

### **STUDENT EMAIL:**

Any announcements or messages sent through Canvas will also be sent to students' CCC email address. Students should check their CCC email at least daily in order to stay up-to-date on course information.

### **CANVAS SHELL:**

The Canvas Shell for this course will be used to post grades, send announcements, communicate via messaging, post homework assignments, and post handouts. Students should sign into the Canvas Shell at least once per day to ensure they are up-to-date with course information.

### **TECHNOLOGY REQUIREMENTS:**

Canvas is designed for maximum compatibility and minimal requirements. It is recommended to use a computer that is 5 years old or newer. Please [click here](#) to see basic computer specifications for Canvas.

### **COMPUTERS ON CAMPUS:**

Computers for student use are available on campus in the Center for Student Success (Room 171) or the Library. Staff will not instruct and/or tutor students regarding assignments. When in doubt, **CONTACT YOUR INSTRUCTOR**. Students needing tutoring assistance should go to the Tutoring Center (Room 415A).

### **STARFISH:**

Clovis Community College uses **Starfish Early Alert** as a communication tool between students, faculty and campus support services. Throughout the term, you may receive emails in your CCC email account from Starfish regarding your course grades or academic performance. These emails are intended

to help you be successful in your CCC courses. Please open the emails and follow the recommendations. Additionally, to make sure you are receiving the support you need, your instructor or your advisor may ask to meet with you to discuss your course progress or refer you to a campus service.

To access Starfish, log into Canvas and click the Starfish link. To learn more about Starfish, visit “Starfish for Students” at <http://www.clovis.edu/students/starfish.aspx> . If you need assistance with Starfish, email the help desk at [helpdesk@clovis.edu](mailto:helpdesk@clovis.edu).

### **MAKE-UP WORK:**

No make-up work is available for this course, but each student’s two lowest homework grades will be dropped and will not count towards their final course grade. If a student must be absent on the day of an exam, they should let the instructor know before the scheduled test time so that a make-up exam can be scheduled.

### **GRADING POLICY:**

Grades in this course will be based on the following:

1. Homework Assignments – Homework assignments will be assigned on MyMathLab. There will be one homework assignment for each section covered in the textbook. Homework will be due on Sunday at 11:59pm each work. No late work will be accepted. Each question on the homework will hold equal weight, with the points-per-question being determined by the total number of questions. The lowest two homework grades will be dropped.
2. Unit Exams – This course is separated into three units. The first unit consists of Chapters 1 and 2; the second unit consists of Chapters 3, 4, and 5; and the third unit consists of Chapters 6 and 7. The first two units will have an accompanying Unit Exam. The third unit will not have a separate exam due to time constraints. Each Unit Exam will only consist of questions from that unit. The exams will be held in class on the listed date. Point values for the questions on the exam will be listed on the exam itself. Each Unit Exam will have a review which will count as a homework grade.
3. Final Exam – The Final Exam for this course will be comprehensive, meaning it will consist of questions from the entire semester. Students must take the exam at the assigned day/time, which is listed in the syllabus. There will be a review for the Final Exam which will count as a homework grade

### **ASSIGNMENTS: POINTS /PERCENT OF COURSE GRADE:**

Homework	35%
Unit Exams	40%
Final Exam	25%

**GRADING SCALE:** Student final grades are based on overall performance in class.

900-1000 points	A
800-899 points	B
700-799 points	C
600-699 points	D
599 and below	F

### **QUALIFIED STUDENTS WITH DISABILITIES:**

Qualified students who have a disability that may require some special arrangements in order to meet course requirements should contact the Special Services Office (769-4099) in the Dr. H. A. Miller

Student Services Center as soon as possible to ensure that their needs are appropriately met. In an effort to ensure students have the support necessary to be successful, Clovis Community College has an Early Alert Referral Program through Starfish. Instructors may make a referral for students that could benefit from additional support outside the classroom. Students may also request a referral.

**COPYRIGHT:**

It is the policy of Clovis Community College to respect the right of those who create and publish intellectual property in the form of printed matter, film, video, audio recordings, computer software and the like. The items posted on the website for this course are copyright by the Publisher and by CCC. No student has the right to use the material for any means other than originally intended. CCC respects copyright laws and insists that its faculty, staff and students do likewise. Students should not distribute email document attachments or post information on any CCC site containing copyrighted material unless the right to do so has been granted by the copyright holder.

**EMERGENCY ALERT:**

In case of campus closure, a recording will be placed on the switchboard (575-769-2811) and the CCC website ([www.clovis.edu](http://www.clovis.edu)) to announce the cancellation of classes or closure of the college. You may sign up for text and email alerts at [www.clovis.edu/getrave](http://www.clovis.edu/getrave).

**ACADEMIC DISHONESTY:**

Academic dishonesty includes plagiarism and other forms of cheating behavior as described in the college catalog. Academic dishonesty is unacceptable at Clovis Community College and in this course. Students committing acts of academic dishonesty shall be penalized by the assignment of lowered or failing grades on assignments and/or for the entire course, depending upon the instructor's evaluation of the severity of the dishonest act. Consult the college catalog for more information on the institutional policy on academic integrity.

**TECHNICAL SUPPORT:**

CCC Help Desk (Room 119) support is available by emailing [helpdesk@clovis.edu](mailto:helpdesk@clovis.edu) or by calling 575-769-4969. Be sure to visit the [Canvas Student Orientation](#) site if you need help navigating our online classroom. You may also find answers to common questions / problems on [Canvas FAQs](#). To see the Help Desk hours of operation, please visit <http://www.clovis.edu/helpdesk/>.

## COURSE SCHEDULE / CALENDAR

Week #	In-Class Lessons and Homework Due on Sunday at 11:59pm
1	<ol style="list-style-type: none"> <li>1. Course Introduction</li> <li>2. Section 1.1: Sets</li> <li>3. Section 1.2: Set Operations</li> </ol>
2	<ol style="list-style-type: none"> <li>1. Section 1.3: Partitions</li> <li>2. Section 1.4: Logic and Truth Tables</li> <li>3. Section 1.5: Quantifiers</li> </ol>
3	<ol style="list-style-type: none"> <li>1. Section 1.6: Implications</li> <li>2. Section 2.1: Proof Techniques</li> </ol>
4	<ol style="list-style-type: none"> <li>1. Section 2.2: Mathematical Induction</li> <li>2. Section 2.3: The Pigeonhole Principle</li> <li>3. Complete Unit Exam #1 Review on MyMathLab</li> </ol>
5	<ol style="list-style-type: none"> <li>1. <b>Unit Exam #1 on Monday</b></li> <li>2. Section 3.1: Divisibility</li> </ol>
6	<ol style="list-style-type: none"> <li>1. Section 3.2: The Euclidean Algorithm</li> <li>2. Section 3.3: The Fundamental Theorem of Arithmetic</li> <li>3. Section 3.4: Divisibility Tests</li> </ol>
7	<ol style="list-style-type: none"> <li>1. Section 3.5: Number Patterns</li> <li>2. Section 4.1: Going from Point A to Point B</li> </ol>
8	<ol style="list-style-type: none"> <li>1. Section 4.2: The Fundamental Principle of Counting</li> <li>2. Section 4.3: A formula for the Binomial Coefficients</li> </ol>
9	<ol style="list-style-type: none"> <li>1. Section 4.4: Combinatorics with Indistinguishable Objects</li> <li>2. Section 4.5: Probability</li> </ol>
10	<ol style="list-style-type: none"> <li>1. Section 5.1: Relations</li> <li>2. Section 5.2: Equivalence Relations</li> </ol>
11	<ol style="list-style-type: none"> <li>1. Section 5.3: Partial Orders</li> <li>2. Section 5.4: Quotient Spaces</li> <li>3. Complete Unit Exam #2 Review on MyMathLab</li> </ol>
12	<ol style="list-style-type: none"> <li>1. <b>Unit Exam #2 on Monday</b></li> <li>2. Section 6.1: Functions</li> </ol>
13	<ol style="list-style-type: none"> <li>1. Section 6.2: Inverse Relations and Inverse Functions</li> <li>2. Section 6.3: Cardinality of Infinite Sets</li> <li>3. Section 6.4: An order Relation for Cardinal Numbers</li> </ol>
14	<ol style="list-style-type: none"> <li>1. Section 7.1: Graphs</li> <li>2. Section 7.2: Matrices, Digraphs, and Relations</li> </ol>
15	<ol style="list-style-type: none"> <li>1. Section 7.3: Shortest Paths in Weighted Graphs</li> <li>2. Section 7.4: Trees</li> <li>3. Review for Final Exam</li> <li>4. Complete Final Exam Review on MyMathLab</li> </ol>
16	<ol style="list-style-type: none"> <li>1. <b>FINAL EXAM ON MONDAY</b></li> </ol>





## General Education Competency Communication – Oral Communication

Speaker: \_\_\_\_\_

Rubric

Topic: \_\_\_\_\_

Criteria	Excellent (5-4.5)	Proficient (4-3.5)	Adequate (3-2.5)	Inadequate (2-0)
<b>Introduction</b>  <b>Attention Getter</b>  <b>Purpose</b>	<ul style="list-style-type: none"> <li>Attention-getter grabs the audience, creates information hunger. A clear explanation of topic leads audience smoothly into the speech</li> </ul>	<ul style="list-style-type: none"> <li>Attention-getter gets audience involved (mentally or physically). Explanation of topic leads us into the speech</li> </ul>	<ul style="list-style-type: none"> <li>Attention-getter is present but limited. The explanation of topic is late, weak or makes it harder for us to follow you into the speech</li> </ul>	<ul style="list-style-type: none"> <li>Attention getter isn't present. Topic statement isn't present</li> </ul>
<b>Provides a well organized speech with appropriate introduction and conclusion.</b>	<ul style="list-style-type: none"> <li>Very well organized.</li> <li>Attention grabbing introduction.</li> <li>Convincing conclusion</li> </ul>	<ul style="list-style-type: none"> <li>Well organized.</li> <li>Suitable introduction.</li> <li>Appropriate conclusion.</li> </ul>	<ul style="list-style-type: none"> <li>Organized</li> <li>Has an introduction.</li> <li>Has a conclusion.</li> </ul>	<ul style="list-style-type: none"> <li>Lacks organization</li> <li>Poor introduction</li> <li>Poor conclusion</li> </ul>
<b>Provides main points that are well-documented, compelling, supported with facts, developed clearly and concisely, and focused on the topic.</b>	<ul style="list-style-type: none"> <li>All main points are well-documented and supported by numerous, compelling facts.</li> <li>Clearly and concisely presented.</li> </ul>	<ul style="list-style-type: none"> <li>All main points are documented and supported by fact.</li> <li>Clearly and concisely presented most of the time</li> </ul>	<ul style="list-style-type: none"> <li>Main points somewhat supported.</li> <li>Clearly and concisely presented some of the time</li> <li>Remains focused on</li> </ul>	<ul style="list-style-type: none"> <li>Little to no support of main points.</li> <li>Not clearly and/or concisely presented.</li> <li>Little to no focus on topic.</li> </ul>

	<ul style="list-style-type: none"> <li>• Remains focused on topic throughout entire presentation.</li> </ul>	<ul style="list-style-type: none"> <li>• Remains focused on topic during most of presentation</li> </ul>	<ul style="list-style-type: none"> <li>• topic during some of presentation</li> </ul>	
<b>Speaks clearly and understandably using standard, edited English with correct mechanics (pronunciation, sentence structure and grammar) relative to audience.</b>	<ul style="list-style-type: none"> <li>• Excellent mechanics throughout.</li> <li>• Very appropriate presentation relative to audience.</li> <li>• Tone is respectful and civil.</li> </ul>	<ul style="list-style-type: none"> <li>• Few mechanical errors.</li> <li>• Majority of presentation appropriate to audience.</li> <li>• Tone is somewhat respectful and civil</li> </ul>	<ul style="list-style-type: none"> <li>• Some mechanical errors.</li> <li>• Presentation inappropriate to some members of the audience.</li> <li>• Neutral tone</li> </ul>	<ul style="list-style-type: none"> <li>• Many/ numerous mechanical errors.</li> <li>• Inappropriate presentation relative to audience.</li> <li>• Tone was disrespectful.</li> </ul>
<b>Provides appropriate handouts and/or visual aids.</b>	<ul style="list-style-type: none"> <li>• Provides entire audience with useful, presentation quality handouts</li> <li>• Audiovisual aids contain appropriate amount of information.</li> <li>• Grammatically correct material.</li> </ul>	<ul style="list-style-type: none"> <li>• Provides entire audience with handouts</li> <li>• Most audiovisual aids contained appropriate amounts of information.</li> <li>• Few grammatical errors.</li> </ul>	<ul style="list-style-type: none"> <li>• Provides majority of audience with handouts</li> <li>• Audiovisual aids contained too much or too little information.</li> <li>• Some grammatical errors.</li> </ul>	<ul style="list-style-type: none"> <li>• Did not provide audience with handouts</li> <li>• No audiovisual aids.</li> <li>• Many/ numerous grammatical errors.</li> </ul>

<b>Conclusion</b>	<ul style="list-style-type: none"> <li>You provided a concluding statement that summarized the main points, referred back to the introduction or supplied a looking forward statement to bring speech full circle and left audience with lasting impression.</li> </ul>	<ul style="list-style-type: none"> <li>You concluded the speech by adequately summarizing the main points, mentioning a previous anecdote, or mentioning future research.</li> </ul>	<ul style="list-style-type: none"> <li>Development of each main point is spotty.</li> </ul>	<ul style="list-style-type: none"> <li>Little development of main points.</li> </ul>
<b>Preparedness Composure Polish</b>	<ul style="list-style-type: none"> <li>You appeared well-prepared, practiced, confident, comfortable, which enhanced your credibility.</li> </ul>	<ul style="list-style-type: none"> <li>You seemed fairly comfortable, practiced, and confident</li> </ul>	<ul style="list-style-type: none"> <li>Your presentation seemed to need more practice to make it polished and confident</li> </ul>	<ul style="list-style-type: none"> <li>You lack confidence, practice, preparedness, polish. It was obvious you were not well prepared.</li> </ul>
<b>Time</b>	<ul style="list-style-type: none"> <li>Effectively and appropriately met the time limit</li> </ul>	<ul style="list-style-type: none"> <li>Less than 30 seconds over/under time limit</li> </ul>	<ul style="list-style-type: none"> <li>More than 30 seconds over/under time limit</li> </ul>	<ul style="list-style-type: none"> <li>Significantly failed to meet time limit</li> </ul>
<b>Sources</b>	<ul style="list-style-type: none"> <li></li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>
<b>Outline</b>	<ul style="list-style-type: none"> <li></li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>

# General Education Competency Communication – Oral Communication

Speaker: \_\_\_\_\_

Rubric

Topic: \_\_\_\_\_

Criteria	Excellent (5-4.5)	Proficient (4-3.5)	Adequate (3-2.5)	Inadequate (2-0)
<b>Introduction</b>  <b>Attention Getter</b>  <b>Purpose</b>	<ul style="list-style-type: none"> <li>Attention-getter grabs the audience, creates information hunger. A clear explanation of topic leads audience smoothly into the speech</li> </ul>	<ul style="list-style-type: none"> <li>Attention-getter gets audience involved (mentally or physically). Explanation of topic leads us into the speech</li> </ul>	<ul style="list-style-type: none"> <li>Attention-getter is present but limited. The explanation of topic is late, weak or makes it harder for us to follow you into the speech</li> </ul>	<ul style="list-style-type: none"> <li>Attention getter isn't present. Topic statement isn't present</li> </ul>
<b>Provides a well organized speech with appropriate introduction and conclusion.</b>	<ul style="list-style-type: none"> <li>Very well organized.</li> <li>Attention grabbing introduction.</li> <li>Convincing conclusion</li> </ul>	<ul style="list-style-type: none"> <li>Well organized.</li> <li>Suitable introduction.</li> <li>Appropriate conclusion.</li> </ul>	<ul style="list-style-type: none"> <li>Organized</li> <li>Has an introduction.</li> <li>Has a conclusion.</li> </ul>	<ul style="list-style-type: none"> <li>Lacks organization</li> <li>Poor introduction</li> <li>Poor conclusion</li> </ul>
<b>Provides main points that are well-documented, compelling, supported with facts, developed clearly and concisely, and focused on the topic.</b>	<ul style="list-style-type: none"> <li>All main points are well-documented and supported by numerous, compelling facts.</li> <li>Clearly and concisely presented.</li> </ul>	<ul style="list-style-type: none"> <li>All main points are documented and supported by fact.</li> <li>Clearly and concisely presented most of the time</li> </ul>	<ul style="list-style-type: none"> <li>Main points somewhat supported.</li> <li>Clearly and concisely presented some of the time</li> <li>Remains focused on</li> </ul>	<ul style="list-style-type: none"> <li>Little to no support of main points.</li> <li>Not clearly and/or concisely presented.</li> <li>Little to no focus on topic.</li> </ul>

	<ul style="list-style-type: none"> <li>• Remains focused on topic throughout entire presentation.</li> </ul>	<ul style="list-style-type: none"> <li>• Remains focused on topic during most of presentation</li> </ul>	<ul style="list-style-type: none"> <li>• topic during some of presentation</li> </ul>	
<b>Speaks clearly and understandably using standard, edited English with correct mechanics (pronunciation, sentence structure and grammar) relative to audience.</b>	<ul style="list-style-type: none"> <li>• Excellent mechanics throughout.</li> <li>• Very appropriate presentation relative to audience.</li> <li>• Tone is respectful and civil.</li> </ul>	<ul style="list-style-type: none"> <li>• Few mechanical errors.</li> <li>• Majority of presentation appropriate to audience.</li> <li>• Tone is somewhat respectful and civil</li> </ul>	<ul style="list-style-type: none"> <li>• Some mechanical errors.</li> <li>• Presentation inappropriate to some members of the audience.</li> <li>• Neutral tone</li> </ul>	<ul style="list-style-type: none"> <li>• Many/ numerous mechanical errors.</li> <li>• Inappropriate presentation relative to audience.</li> <li>• Tone was disrespectful.</li> </ul>
<b>Provides appropriate handouts and/or visual aids.</b>	<ul style="list-style-type: none"> <li>• Provides entire audience with useful, presentation quality handouts</li> <li>• Audiovisual aids contain appropriate amount of information.</li> <li>• Grammatically correct material.</li> </ul>	<ul style="list-style-type: none"> <li>• Provides entire audience with handouts</li> <li>• Most audiovisual aids contained appropriate amounts of information.</li> <li>• Few grammatical errors.</li> </ul>	<ul style="list-style-type: none"> <li>• Provides majority of audience with handouts</li> <li>• Audiovisual aids contained too much or too little information.</li> <li>• Some grammatical errors.</li> </ul>	<ul style="list-style-type: none"> <li>• Did not provide audience with handouts</li> <li>• No audiovisual aids.</li> <li>• Many/ numerous grammatical errors.</li> </ul>

<b>Conclusion</b>	<ul style="list-style-type: none"> <li>You provided a concluding statement that summarized the main points, referred back to the introduction or supplied a looking forward statement to bring speech full circle and left audience with lasting impression.</li> </ul>	<ul style="list-style-type: none"> <li>You concluded the speech by adequately summarizing the main points, mentioning a previous anecdote, or mentioning future research.</li> </ul>	<ul style="list-style-type: none"> <li>Development of each main point is spotty.</li> </ul>	<ul style="list-style-type: none"> <li>Little development of main points.</li> </ul>
<b>Preparedness Composure Polish</b>	<ul style="list-style-type: none"> <li>You appeared well-prepared, practiced, confident, comfortable, which enhanced your credibility.</li> </ul>	<ul style="list-style-type: none"> <li>You seemed fairly comfortable, practiced, and confident</li> </ul>	<ul style="list-style-type: none"> <li>Your presentation seemed to need more practice to make it polished and confident</li> </ul>	<ul style="list-style-type: none"> <li>You lack confidence, practice, preparedness, polish. It was obvious you were not well prepared.</li> </ul>
<b>Time</b>	<ul style="list-style-type: none"> <li>Effectively and appropriately met the time limit</li> </ul>	<ul style="list-style-type: none"> <li>Less than 30 seconds over/under time limit</li> </ul>	<ul style="list-style-type: none"> <li>More than 30 seconds over/under time limit</li> </ul>	<ul style="list-style-type: none"> <li>Significantly failed to meet time limit</li> </ul>
<b>Sources</b>	<ul style="list-style-type: none"> <li></li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>
<b>Outline</b>	<ul style="list-style-type: none"> <li></li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>

*Rubrics will be used to assess group scene performances to evaluate if the acting skills have been learned and how well they're utilized in performances. Creating low-stakes assessments and giving immediate, positive feedback helps students to directly experience successful developments of the skills they learned which in turn promotes a "growth" mindset that supports internal motivation*

## **THEA 1210 Introduction to Acting - NMT**

### **Scene Performance Rubric**

(100 points total)

Names \_\_\_\_\_

CRITERIA	EXCELLENT 8	VERY GOOD 7	GOOD 6	FAIR 5	POOR 4
Tension and Emotion (8 points)	Tension is motivated and constant throughout – both characters' objectives and needs are fully played in the scene. Emotion is believable and matches the character, play and style.	Tension is mostly motivated – both characters' objectives and needs are played in the scene most of the time. Emotion is believable and mostly matches two of the three (character, play and style).	Tension is not always motivated or consistent throughout – some of the characters' objectives and needs are played in the scene. Emotion is somewhat believable and sometimes matches one of the three (character, play and style).	Tension is not consistent at all – characters' objectives and needs are not fully played in the scene. Emotion is not motivated and does not match character, play or style.	Tension is missing – characters' objectives and needs are missing in the scene. Emotion is missing.
Memorization (2 points)	All lines are correct, fluid and display a command of the scene. 2	All but a few lines are correct and the scene is fluid. 1.5	Some choppiness and some lack of fluidity, needs more rehearsal. 1	Scene is choppy, many line errors, needs much more rehearsal. .5	Scene is not memorized. 0
Characterization (8 points)	Strong choices are made to create character fully.	Good choices are made to create character.	Character is not constant and/or choices were not strong.	Limited characterization-breaking of character during the scene.	Character is not present.
Movement and Blocking (8 points)	Specific choices are made as to how and when to move based on the characters needs and style of the scene.	General choices are made as to how and when to move based on the characters needs and style of the scene.	Some choices are made as to how and when to move but some unmotivated movement as well.	Movement is choppy and feels unmotivated overall and/or does not relate to the character or the style of the scene at all.	Very little movement and/or movement that does not relate to the character or the style of the scene at all.
Diction, Projection and Vocal Variety (8 points)	Scene is easy to understand and hear. All words are clear and loud enough to hear with good vocal variety.	Most of the scene is easy to hear and understand but needs work on one of the following (vocal variety, projection or diction).	Most of the scene is easy to understand but needs more work on two or more of the following (vocal variety, projection or diction).	Trouble hearing and understanding the scene from anywhere beyond the front of the theatre and/or scene lacks any vocal variety.	Scene cannot be heard or understood and is monotone.
Tempo and Rhythm (8 points)	Tempo and rhythm are appropriate and the scene has a logical build.	Tempo and rhythm are good, some build but not strong or clear enough.	Tempo and rhythm are good, but no clear build.	Tempo is too fast or too slow and there is no build.	Tempo is so fast or so slow that it distracts from the scene.

Focus and Give and Take (8 points)	Performance is very focused all the time. Actors are giving and taking throughout.	Performance is focused most of the time. Actors are giving and taking most of the time.	Performance is focused some of the time. Actors are giving and taking some of the time.	Performance is focused a small percentage of the time. Actors are not giving and taking.	Performance is not focused at all. There is no give and take between actors.
------------------------------------	--	---	---	--	--

**TOTAL** \_\_\_\_\_ **X 2 =** \_\_\_\_\_

Written by Stephen Gundersheim

## ***Scene Assignment***

- 1. You are to choose a scene from one of the plays that you have read in class, 5 minutes in length, and must be approved by me.***
- 2. You will memorize the scene and rehearse on your own with your scene partner(s).***
- 3. You will perform it once in class for a grade and will receive feedback from both instructor and classmates.***





## Grading Rubric for Case Study 1 (Healthworks Software Audit)

10-point scale

**Overall:**

**1. Completeness: /5**

**2. Clarity: /3**

**3. Resourcefulness: /2**

### 1. Completeness (5 points):

- Length: 2 full pages (not including citations)
- Structure: contains the following 6 elements
  - For each of the two findings, an ethical argument with a clear judgment (for/against) and grounds (ethical reasons and empirical support);
  - For each of the two findings, a proposal for the action that HealthWorks ought to take, with a clear judgment and ethical grounds, and connections to the previous evaluation; [if no action, need justification for inaction]
  - For each of the two findings, raise one strong objection to either the evaluation, proposal, or both and then provide a strong response in defense.
- **Complete:** 5- Structurally complete, with pointed objections and responses. Case study carefully examines different aspects of each finding, proposes appropriate actions, then provides an objection and response for each argument/proposal.
- **Minor issues with completeness:** 4.5- All elements present, but paper too short by half a page (gratuitous spacing) OR Nearly complete, only missing one element, namely one proposal of action, or an objection-response pair,
- **Major issues with completeness:** 4- Missing two major elements, namely two proposals of action, or two pairs of objection-response for each of the arguments/actions proposed.
- **Severely incomplete:** 3.5- Missing 2 proposals and 2 objections with responses. OR Missing 2 proposals and 1 objection-response pair and too short by half a page.

### 2. Clarity (3 points):

- Position and judgment
  - Coherence and consistency throughout
  - Intelligibility throughout
- Logic

- Appropriate use of grounds
  - Well targeted objections and responses
  - Avoids logical fallacies
- **Very clear:** 3- Clearly argued, and nicely engaged with different ethical aspects of the case.
- **Minor issues with clarity:** 2.5- Pretty clearly argued and well structured; lacking in clarity of your position toward arguments raised, or some elaboration of arguments, proposed actions, objection-responses, particularly in ethical terms, or some weakness in argumentation, including 1 fallacy.
- **Major issues with clarity:** 2- Argument proposal significantly unclear, either in terms of grounds or claim, including 2 fallacies.

### 3. Resourcefulness (2 points)

- Able to deal skillfully with new situations and their nuances
- Avoids black/white thinking, exposes tensions
- Skill use of ethical grounds for arguments, including
  - Ethical principles and guidelines and frameworks
  - Other moral and practical considerations
  - Strengths and weaknesses of an approach
  - Different stakeholders
- **Very resourceful:** 2- Adroit engagement with the case and its ethical nuances, and skillful use of ethical frameworks/principles for argumentation with thorough, creative proposals for action.
- **Minor issues with resourcefulness:** 1.5- Adequate engagement with case and reasonable proposal for action, but a bit black/white argumentation: missing some attention to nuance and missing more articulation and justification of proposed actions.
- **Major issues with resourcefulness:** 1- No significant attempt to engage with the nuances of the case.

### Overall

10/10 (100% A+) **Excellent case study.** Keep up the stellar work, especially in terms of

9.5/10 (95% A) **Very good case study.** Complete, clear, and resourceful in nearly all elements. Keep up the great work!

9/10 (90% A-) **Good case study.** Good work in terms of \_\_\_\_; case study needs a bit more attention to elaboration of ethical grounds and more nuanced thinking.

8.5/10 (**85% B**) **Average quality case study.** Good work in some areas, such as \_\_\_\_; case study needs more \_\_\_\_.

8/10 (**80% B-**) **Below average case study.** The case study is off to a good start, but the paper remains incomplete (missing proposals for action, a set of objection-response, and ½ page of writing) and unclear at times (see comments below). See me for more advice.

7.5/10 (**75% C**) **Low quality case study.** The argument is [very rushed,] as well as the objections and responses. I know you can provide a much more compelling and detailed analysis. See me for more advice.

7/10 (**70% C-**) **Poor quality case study.** The argument is based on a severe misunderstanding ..... Ethical grounds are also unclear and need more elaboration and connection to moral principles. See me for more advice as how to avoid these mistakes in your next paper.

6.5/10 (**65% D**)

6      60

5.5    55

5      50

## Grades

**A** (100-93%),

**A-** (92-90%),

**B+** (89-87%),

**B** (86-83%),

**B-** (82-80%),

**C+** (79-77%),

**C** (76-73%),

**C-** (72-70%),

**D** (69-60%), and

**F** (<60%).

## Survey of ECON Discussion

Survey of ECON Discussion				
Criteria	Ratings			Pts
This criterion is linked to a Learning Outcome	5 to >3.0 pts	3 to >1.0 pts	1 to >0 pts	
Presentation	Very well	Well written	Needs work	
Discussions are posted using well formed sentences, complete with proper grammar, punctuation and capitalization.	written Sentences are complete and well phrased.	Some elements of grammar and style are missing.	Post contains incomplete sentences, and/or lacks most of the required qualities.	5 pts
This criterion is linked to a Learning Outcome	5 to >3.0 pts	3 to >1.0 pts	1 to >0 pts	
Personal Thought	Very well explained	Somewhat explained	Needs work	
Post contains reflection and application of concepts from the text.	Post presents personal thought and/or example	Post did not indicate much reflection and/or lacked clarity.	Post lacks any personal reflection or example.	5 pts
This criterion is linked to a Learning Outcome	10 to >7.0 pts	7 to >3.0 pts	3 to >0 pts	
Reply to classmate's post	Very well explained	Somewhat explained	Needs work	
Post adds additional thought and perspective to explain agreement or disagreement using concepts or terms from the textbook and the application is explained.	Post contains a textbook example, and a clear explanation of the application.	Post contains a textbook example, but the explanation of the application lacks clarity.	Post lacks any textbook concepts or terms, or lacks explanation.	10 pts

## Essay Grading Rubric

Grade	Thesis	Conceptual	Structuring	Language
A	Essay is anchored with a strong and clear thesis at the beginning of the essay. All key terms are defined and explained carefully.	Demonstrates exceptional understanding of the basic ideas and information involved in the assignment; essay is free of factual, interpretive, and/or conceptual errors.	Smooth transitions; appropriate and <u>streamlined</u> discussion; ideas in paragraph are well developed and unified.	Clear, unambiguous, and sophisticated sentences; no or little grammatical errors.
B	Essay is anchored with a general thesis that may not be quite clear. Most key terms are defined and explained carefully.	Understands the majority of the basic ideas and information involved in the assignment; commits a few minor factual, interpretive, and/or conceptual errors.	Mostly smooth transitions; most discussion was appropriate; ideas in paragraphs were well-developed, but may need to be more unified.	A few grammatical errors, but essay possesses, for the most part, clear and well-written sentences. May have used one or two clichés, but overall writing avoids conversational voice.
C	Student attempts to anchor essay with an appropriate general thesis or controlling idea. Some key terms are not defined or explained carefully.	Shows some understanding of the basic ideas and information involved in the assignment; may have some factual, interpretive, and/or conceptual errors.	Some awkward transitions; extraneous discussion; brief, un-unified, or undeveloped paragraphs.	Unclear or awkward sentences that distract from the argument. Several grammatical errors that interfere with the argument. Language occasionally slips into a conversational or informal tone.
D	Essay lacks an appropriate general thesis. Few key terms are defined or explained carefully.	Shows little understanding of the basic ideas and information involved in the assignment; commits many factual interpretive, or conceptual errors.	Awkward transitions; discussion was scattered and irrelevant; brief, un-unified, or undeveloped paragraphs.	Poor and awkward sentence structure; many distracting grammatical errors. Language frequently weakened by clichés and/or colloquialisms.
F	Student lacks a general thesis. No key terms are defined or explained.	Demonstrates a lack of understanding of the basic ideas and information involved in the assignment.	No transitions; paragraphs are incoherent; suggests poor planning or no serious revision.	Demonstrates no understanding of sentence structure or grammar. Entire paper is written in an informal tone.

**CLOVIS COMMUNITY COLLEGE**  
**BIOL 2110C Principles of Biology: Cellular and Molecular Biology**  
**xxxx Semester xxxx**

**Instructor:** Don Scroggins

**Office:** Rm 202A   **Hours:** MW – 10am-12noon and 2pm-3pm, TR – By appointment

**Office Phone:** 575-769-4909

**E-Mail:** Please use the Canvas message system for all correspondence

**Text Book:** **Biology Laboratory Manual** 12<sup>th</sup> Edition By Darrell Vodopich and Randy Moore

ISBN10: 1260200728

ISBN13: 9781260200720

**Materials Required:** Pencil, notebook, college ruled paper, and a scientific calculator

### **Course Description**

The combined lecture and laboratory components of this course introduces students to major topics in general biology. This course focuses on the principles of structure and function of living things at the molecular, cellular and organismic levels of organization. Major topics included are introduction to the scientific process, chemistry of cells, organization of cells, cellular respiration, photosynthesis, cell division, DNA replication, transcription, and translation.

### **Student Learning Outcomes (lecture)**

1. Apply the scientific method to develop and evaluate hypotheses and propose an experiment to test a scientific hypothesis related to cell biology and molecular biology.
2. Describe the distinguishing characteristics of various biological molecules (water, carbohydrates, lipids, proteins, and nucleic acids). (HED Area 3, Competency 3)
3. Compare and contrast the basic features of cells and how prokaryotic cells differ from eukaryotic cells. (HED Area 3, Competency 3)
4. Understand how organisms maintain homeostasis in a dynamic environment.
5. Describe how biological molecules are acquired and how they are subsequently used to meet the metabolic needs of organisms. (HED Area 3, Competency 3)
6. Describe membrane structure and function.
7. Describe and analyze the nature of bioenergetic transformations and metabolism within the cell.
8. Describe the processes of cellular respiration and photosynthesis.
9. Analyze with specific detail the processes of DNA replication, transcription, and translation.
10. Analyze with specific detail the types, mechanisms, and regulation of cellular division.
11. Assess important applications of cell and molecular biology to energy use, medicine, and other day-to-day

processes. (HED Area 3, Competency 1,3,4,5)

### **Student Learning Outcomes (laboratory)**

1. Describe and apply the scientific method to solve problems in biological context
2. Demonstrate knowledge of laboratory safety skills and procedures.
3. Practice principles of scientific method while conducting laboratory activities and experiments.
4. Perform laboratory activities using relevant laboratory equipment, chemical reagents, and supplies to observe biological specimens, to measure variables, and to design and conduct experiments.
5. Operate light microscopes, prepare wet mount slides, and use stains.
6. Exhibit ability to use pipettes and other volumetric measuring devices, chemical glassware, balances, pH meters or test papers, spectrophotometers, and separation techniques, such as chromatography and/or electrophoresis to perform activities relevant to other course competencies.
7. Analyze and report data generated during laboratory activities and experiments.

**Attendance Requirements:** Attendance is required at all sessions in each course. When circumstances make attendance impossible, students should notify the instructor of their absence. Students are responsible for making sure they are caught up with the class lectures and assignments, so they are able to attend the next class session prepared.

**Withdraw:** If students are unable to attend the required sessions or complete the assignments and quizzes/tests successfully for a course, they should withdraw from the class after they have spoken with their instructor and academic advisor. **Instructors do not withdraw students.** Dual credit students must contact their high school counselor. The last day to withdraw from this course is November 8, 2019.

**Student Email:** The instructor will use the student's CCC email address or the Canvas messaging system when using email to correspond with a student via email. Students will use the Canvas email system when using email to correspond with the instructor.

**Canvas Shell:** The instructor will create and maintain a Canvas Shell for BIOL 2110C. Students will submit their assignments during class. When the assignments have been graded, the instructor will enter the grades into the Canvas Shell where students will be able to see their grades for individual assignments and their overall class grade.

**Technology Requirements:** Canvas is designed for maximum compatibility and minimal requirements. It is recommended to use a computer that is 5 years old or newer. Please keep in mind that computers are available for student use in the library. The Firefox browser works best with Canvas.

**Starfish:** Clovis Community College uses **Starfish Early Alert** as a communication tool between students, faculty and campus support services. Throughout the term, you may receive emails in your CCC email account from Starfish regarding your course grades or academic performance. These emails are intended to help you be successful in your CCC courses. Please open the emails and follow the recommendations. Additionally, to make sure you are receiving the support you need, your instructor or your advisor may ask to meet with you to discuss your course progress or refer you to a campus service.

To access Starfish, log into Canvas and click the Starfish link. To learn more about Starfish, visit "Starfish for Students" at <http://www.clovis.edu/students/starfish.aspx>. If you need assistance with Starfish, email the help desk at [helpdesk@clovis.edu](mailto:helpdesk@clovis.edu).

**Makeup Work:** Refer to the BIOL 2110C Course Schedule below for the homework, lab reports, and tests that must be completed for this course. Students are responsible for completing any and all homework assignments by the date they are due. To preserve the integrity of the assessment process, there will be **no makeup exams or lab assignments allowed**. Since unforeseeable circumstances do arise, the final exam may be used to replace the lowest unit exam grade.

**Grading Policy:** Students will receive homework assignments for each chapter, which will be due the following class. Exams are administered in class. Laboratories exercises will include a written report that will be due the week after the laboratory is accomplished. A final comprehensive exam will be completed in class during the final class session. Individual homework assignments, tests, laboratories, and exams, are each graded using a 100-point scale. The following weights will be assigned in order to determine the overall grade:

**Graded Components and Weights**

Homework and Quizzes:	15%
Tests:	30%
Laboratory Reports:	25%
Final Exam:	30%
Total	100%

**Grading Scale**

90 – 100%	=	A
80 – 89%	=	B
70 – 79%	=	C
60 – 69%	=	D
Below 60%	=	F

**Late Work:** Homework and Lab Reports will be collected during the class period indicated on the course calendar/schedule. Students may turn in these assignments one class period late with no penalty.



Homework and Lab Reports turned in after this time will have ten points deducted for every class period the assignment is late. Homework and Lab Reports that are not turned in will receive a grade of zero.

**Qualified Students with Disabilities:** Qualified students who have a disability that may require some special arrangements in order to meet course requirements should contact the Special Services Office (769-4099) in the Dr. H. A. Miller Student Services Center as soon as possible to ensure that their needs are appropriately met. In an effort to ensure students have the support necessary to be successful, Clovis Community College has an Early Alert Referral Program through Starfish. Instructors may make a referral for students that could benefit from additional support outside the classroom. Students may also request a referral.

**Copyright:** It is the policy of Clovis Community College to respect the right of those who create and publish intellectual property in the form of printed matter, film, video, audio recordings, computer software and the like. The items posted on the website for this course are copyright by the Publisher and by CCC. No student has the right to use the material for any means other than originally intended. CCC respects copyright laws and insists that its faculty, staff and students do likewise. Students should not distribute email document attachments or post information on any CCC site containing copyrighted material unless the right to do so has been granted by the copyright holder.

**Emergency Alert:** In case of campus closure, a recording will be placed on the switchboard (575-769-2811) and the CCC website ([www.clovis.edu](http://www.clovis.edu)) to announce the cancellation of classes or closure of the college. Students may sign up for text and email alerts at [www.clovis.edu/getrave](http://www.clovis.edu/getrave).

**Academic Dishonesty:** Academic dishonesty includes plagiarism and other forms of cheating behavior as described in the college catalog. Academic dishonesty is unacceptable at Clovis Community College and in this course. Students committing acts of academic dishonesty shall be penalized by the assignment of lowered or failing grades on assignments and/or for the entire course, depending upon the instructor's evaluation of the severity of the dishonest act. Consult the college catalog for more information on the institutional policy on academic integrity.

**Technical Support:** CCC Help Desk support is available by emailing [helpdesk@clovis.edu](mailto:helpdesk@clovis.edu) or by calling 575-769-4747. Be sure to visit the Canvas Student Orientation site if you need help navigating our online classroom. You may also find answers to common questions / problems on Canvas FAQs.

**Help Desk Hours:**

Monday-Thursday 7 a.m. to 7 p.m.

Friday 7 a.m. to 4:30 p.m.

Interim, Monday-Friday 7 a.m. to 4:30 p.m.

**Computers on Campus:** Computers for student use are available on campus in the Center for Student Success (room 171). Please call 575.769.4095 for more information. The Center is open Monday-Thursday from 8 a.m. to 8 p.m. and 8 a.m. to 4:30 p.m. on Fridays. It is closed weekends and holidays. The employees in the Center are there to assist students and faculty with computer functions such as power-up, keyboard operations, printer operations, and software problem determination. They are not expected, however, to instruct students or be a substitute for a faculty member. Any help from assistants should be considered a suggested solution and may be different from the solution expected by the instructor. When in doubt, CONTACT YOUR INSTRUCTOR.

# BIOL 2110C Course Schedule

<b>Week</b>	<b>Lecture Topic</b>	<b>Lab Assignment</b>
1.	Introduction and Scientific Inquiry	Lab 1 Using the Scientific Method
2.	Biochemistry Basics	Lab 2 Macromolecules
3.	Cellular morphology and function	Lab 3 Survey of Cell types
4.	Homeostasis	Lab 4 Salt and Water Balance
5.	Biological molecule acquisition in the cell	Lab 5 Absorption and Distribution
6.	Cellular Membrane Structure and Function	Lab 6 Osmosis
7.	Enzymatic action and Metabolism	Lab 7 Catalase action
8.	Cellular Respiration	Lab 8 ATP and ADP cycle
9.	Photosynthesis	Lab 9 Photosynthesis
10.	DNA Replication	Lab 10 DNA Polymerase
11.	Transcription, Translation, and Protein Synthesis	Lab 11 Protein Synthesis
12.	The Cell Cycle	Lab 12 Mitosis
13.	Cell Regulation	Lab 13 Cell Growth
14.	Cellular Biology Applications	Lab 14 Apples and Oranges
15.	Molecular Biology Applications	Lab 15 Vaccines
16.	Final Exam	

**Rubric for Assessment of Essential Skills Outcome (ESO): Critical Thinking Course: COMM 2120 Interpersonal Communication**  
**SFCC Department of English, Reading, and Speech**

Component Skill	Not Observed	Emerging-below standard	Developing-meets standard	Proficient-exceeds standard
Student's position (perspective, thesis/hypothesis)	The document <u>does not identify</u> a perspective, problem, thesis, or hypothesis.	The document <u>identifies</u> a perspective, problem, thesis, or hypothesis, but the perspective may be simplistic and/or obvious, needing further description or clarification.	The document identifies and <u>sufficiently describes and clarifies</u> a perspective, problem, thesis, or hypothesis. Opposing or differing perspectives may be acknowledged.	The document identifies and <u>comprehensively describes</u> the student's perspective, problem, thesis, or hypothesis. Opposing or differing perspectives are clearly acknowledged. Complexity and nuances of the position are acknowledged and/or explored.
Evidence (selecting and using information to investigate or support a position)	Student <u>does not use evidence to investigate or support a position</u> , OR the <u>evidence presented is not relevant</u> to the issue, perspective, problem, question, or thesis.	Student <u>uses relevant evidence</u> to investigate or support a position. Evidence may be drawn from an <u>insufficient number or mix of sources</u> , OR there may be <u>insufficient elaboration on how the evidence relates to the stated position</u> .	Student gathers and uses <u>sufficient, relevant evidence from an appropriate mix of sources</u> . A <u>sufficient quality of elaboration</u> shows the relationship between the evidence and the stated position.	Student <u>gathers and comprehensively elaborates upon an appropriate scope and depth of relevant evidence</u> to investigate or support the stated position.
Influence of context and assumptions	Influences of contexts and assumptions are not considered. Biases are not identified.	Student <u>begins to identify contexts of and possible biases in the evidence presented</u> . <u>May demonstrate some awareness of assumptions in others' views, but may not acknowledge own assumptions</u> .	Student <u>sufficiently identifies own and others' assumptions and several relevant contexts</u> when presenting a position. Possible biases are acknowledged.	Student <u>thoroughly (systematically and methodically) analyzes own and others' assumptions and carefully evaluates the relevance of biases and contexts</u> when presenting a position.
Conclusions and related outcomes (implications and consequences)	Conclusion is unrelated or inconsistently tied to the information discussed. Discussion of implications and consequences may be circular, oversimplified, or illogical.	Students can sometimes identify common logical flaws. Students can sometimes describe weak and strong arguments. <u>Conclusion may be logical, but perhaps only because information is chosen to fit the desired conclusion</u> .	Student can <u>sufficiently employ evidence and reasoning to build an argument and to reach probable conclusions</u> and implications. Conclusion is tied to a range of information that may include varying viewpoints.	Conclusions and related outcomes (consequences and implications) are <u>logical</u> and reflect student's <u>informed, well-reasoned evaluation</u> . Conclusions are tied to a range of information, including opposing viewpoints.

Student's Name: \_\_\_\_\_

**Concert Review and Critique Rubric**

<b>Criteria</b>	<b>Exemplary (15)</b>	<b>Developed (10)</b>	<b>Limited (0-5)</b>
<b>Structural Elements</b>	All of the relevant information listed in the assignment is correct and included.	One piece of relevant information is missing from the assignment.	More than one piece or all of the information is missing from the assignment.
<b>Analyze</b>	All five topics in the category are addressed in the review.	One category is missing.	More than one category is missing.
<b>Evaluate</b>	The evaluation is thorough, thoughtful, and demonstrates a working understanding of the purpose of fine arts performance.	The evaluation is limited in scope or length; demonstrates limited understanding.	The evaluation is incomplete, missing, or does not address the questions in the assignment.
<b>Personal Opinion</b>	Opinion address all four questions in the assignment clearly.	One question is unaddressed.	More than one question is unaddressed.
<b>Format and Considerations</b>	Student meets all editing and format criteria. Syntax/grammar/spelling errors are limited or non-existent.	Some minor errors are present in grammar/syntax/spelling.	Paper is unedited and format has not been followed.

Grade: \_\_\_\_\_/75 points =

<b>Points Range</b>	<b>% Range</b>	<b>Grade</b>
68-75	100% - 90%	A
60-67	89% - 80%	B
53-66	79% - 70%	C
45-52	69% - 60%	D

**Rúbrica:**

<b>Categoría</b>	<b>Puntos</b>
<b>La propuesta.</b> Your proposal includes the requested information (a specific topic and country in America Latina), and formulates a clear research question that you plan to investigate in your research and presentation.	/10
<b>El esbozo y la bibliografía.</b> Your outline contains a thesis statement that indicates your reflection on the topic and responds to your research question. You include the requested number of main points and sub-points for the body of your presentation. Your bibliography includes appropriate sources, including basic information from Wikipedia and other, more specialized sources.	/15
<b>La presentación Google Slides/PowerPoint.</b> Your presentation is well organized and contains an initial “thesis slide,” 5-7 slides for the body of your presentation, and a “conclusion slide” that sums up your presentation and re-frames it to speak to broader, region-wide or global issues. Your text is well edited and incorporates vocabulary and grammatical structures from our lessons this semester. You incorporate extensive visuals: each slide should have some sort of visual information to complement the text. Finally, you cite textual and visual sources, either via hyperlink or using MLA format.	/45
<b>El video de la presentación.</b> Your video recording shows evidence that you have rehearsed and practiced the material. Your delivery is natural, and you utilize the formal register in addressing yourself to your audience. You do not simply read off of the slides—you expand each point, and add to the textual information in your presentation. (Note: no more than 15-20% of your words should be present on the slides themselves). You utilize your visual materials effectively. They are not merely decorative.	/30
<b>Total</b>	<b>/100</b>

Student's Name: \_\_\_\_\_

**Concert Review and Critique Rubric**

<b>Criteria</b>	<b>Exemplary (15)</b>	<b>Developed (10)</b>	<b>Limited (0-5)</b>
<b>Structural Elements</b>	All of the relevant information listed in the assignment is correct and included.	One piece of relevant information is missing from the assignment.	More than one piece or all of the information is missing from the assignment.
<b>Analyze</b>	All five topics in the category are addressed in the review.	One category is missing.	More than one category is missing.
<b>Evaluate</b>	The evaluation is thorough, thoughtful, and demonstrates a working understanding of the purpose of fine arts performance.	The evaluation is limited in scope or length; demonstrates limited understanding.	The evaluation is incomplete, missing, or does not address the questions in the assignment.
<b>Personal Opinion</b>	Opinion address all four questions in the assignment clearly.	One question is unaddressed.	More than one question is unaddressed.
<b>Format and Considerations</b>	Student meets all editing and format criteria. Syntax/grammar/spelling errors are limited or non-existent.	Some minor errors are present in grammar/syntax/spelling.	Paper is unedited and format has not been followed.

Grade: \_\_\_\_\_/75 points =

<b>Points Range</b>	<b>% Range</b>	<b>Grade</b>
68-75	100% - 90%	A
60-67	89% - 80%	B
53-66	79% - 70%	C
45-52	69% - 60%	D

10 possible points  
**Grading Rubric for PHIL 130 Analytic Papers**

**Overall:**

1. **Completeness:** /5
2. **Charity:** /2
3. **Clarity:** /3

**1. Completeness (5 points):**

- Length: at least 2 full pages, not including any citations
    - Two lines at the end OK, but 3 or more is a no-no
  - Structure: 6 elements
    - Claim and a stance (for/against)
    - Grounds (reasons)
    - 2 objections
    - 2 responses
  - Citations with proper formatting (APA or at least consistent)
- 
- **Complete:** 5- Structurally complete, with pointed objections and responses. Examines different aspects of the claim, then provides at least 2 objections and 2 responses.
  - **Nearly complete:** 4.5- Mostly complete, only missing one element OR All elements present but too short (<2 full pages). In future, avoid gratuitous spacing to fill up the full page limit (citations not included). OR Mostly, complete, only missing both significance (why do we care about this topic?) and references (APA format).
    - **Minus .25 for missing significance:** 4.75- Mostly complete, only missing one element, namely the significance of the argument (why should we care about this topic?).
    - **Minus 0.25 for missing references:** 4.75- Mostly complete, only missing one element, namely a list of references in APA format.
    - **Minus 0.25 for claim not in assigned materials:** 4.75- Mostly complete, only missing one element, namely a claim from one of the assigned materials (e.g., readings, podcasts, documentaries, etc.).
  - **Adequately complete:** 4- Missing two elements (namely a second set of objections and responses to the later arguments) but length adequate OR Shorter than two full pages and missing one major element, namely a claim with a citation from the assigned material. OR Shorter than two full pages and missing two minor elements, namely significance (why do we care about this topic?) and references (APA format). OR Missing one full page.
    - 4.25- Shorter than two full pages and missing one minor element, namely a list of references in APA format.

- **Issues with completeness:** 3.5- Missing two elements and shorter than 3 pages (by more than ½ page).
- **Major issues with completeness:** 3- Major issues: Missing four major elements, namely any objections and responses (need at least 2). No discussion of weaknesses.
- **Severely incomplete:** 2.5- Missing four
- 2-

## 2. Charity (2 points)

- Charitability
  - i. To the original claim (primary)
    - 1. Avoid strawman fallacy
    - 2. Avoid misconstruing author's position
- **Very charitable:** 2- Paper follows the Principle of Charity such that the author would recognize the claim as their own.
- **Minor issues with charity:** 1.5- Paper does not quite commit a strawman fallacy, but it does not display the principle of charity (assume the best, most rational interpretation of the claim).
- **Major issues with charity:** 1- Commits a strawman fallacy: Artificially weak position constructed that does not convey the force of the original claim.

## 3. Clarity (3 points):

- Position and stance
  - i. Consistency
  - ii. Intelligibility
- Coherence of AOR
  - i. targeted objections
  - ii. targeted responses
- Grounds for arguments and support
  - i. Elaborated acc to
    - 1. Ethical principles and guidelines
    - 2. Other moral considerations
    - 3. Strengths and weaknesses of an approach
    - 4. Stakeholders
  - ii. Based on empirical research (NOT NECESSARY THIS TIME)
    - 1. Citations of scholarly research
    - 2. Formatting
- More than 5 significant errors in spelling/grammar



- **Very clear:** 3- Very clearly argued, and nicely engaged with different ethical aspects of the case.
- **Mostly clear:** 2.5- Pretty clearly argued and well structured, only lacking in some lucidity and strength of arguments, objections, or responses, including one fallacy or inconsistency.
- **Somewhat clear:** 2- Some (though not all) arguments, objections, responses not supported, well developed, or well targeted, including 2 fallacies.
- **Major issues with clarity:** 1.5- Stance not clear (possibly inconsistent at times), and some (though not all) argument/objections/responses not supported, well developed, or well targeted, including three fallacies.
- **Severely unclear:** 1- Many elements unclear, inconsistent, or incoherent

## Overall

10/10 (**100% A+**) **Excellent analysis.** Keep up the stellar work, especially in terms of \_\_\_\_.

9.5/10 (**95% A**) **Very good analysis.** Complete, clear, and charitable in nearly all elements. Keep up the good work.

9/10 (**90% A-**) **Good analysis.** Good start to an analytic paper in terms of \_\_\_\_, but needs more attention to \_\_\_\_.

8.5/10 (**85% B**) **Average quality analysis.** Good work in many areas, but needs more \_\_\_\_.

8/10 (**80% B-**) **Below average analysis.** Good work in some areas, but needs more \_\_\_\_.

7.5/10 (**75% C**) **Low quality analysis.** The argument is [very rushed,] as well as the objections and responses. I know you can provide a much more compelling and detailed analysis. See me for more advice.

7/10 (**70% C-**) **Poor quality analysis.** The argument is based on a severe mischaracterization of the author's original claim, rendering the analysis uncharitable and, at times, fallacious. Ethical grounds are also unclear and need more elaboration and connection to moral principles. See me for more advice as how to avoid these mistakes in your next paper.

6.5/10 (**65% D**)

6      60

## Grades

**A** (100-93%),

**A-** (92-90%),

**B+** (89-87%),

**B** (86-83%),

**B-** (82-80%),

**C+** (79-77%),

**C** (76-73%),

**C-** (72-70%),

**D** (69-60%), and

**F** (<60%).

**Clovis Community College**  
**MATH 2420 – Applied Linear Algebra – Section 301**  
**Fall 2021**

**INSTRUCTOR:** Brandon J. Finney  
**OFFICE:** Faculty Office 4, Room B (403-B)  
**OFFICE PHONE:** (575) 769-4933  
**MESSAGE PHONE:** (575) 769-4945 (Faculty Office 4 Secretary)  
**OFFICE HOURS:** TBA  
**E-MAIL:** brandon.finney@clovis.edu

**TEXTBOOK:**

This course uses *Linear Algebra and its Applications, 6<sup>th</sup> Edition* by Lay, McDonald, and Lay. Students are required to at least have access to the ebook, which includes MyMathLab access.

**Required:** MyMathLab Access ISBN: 9780135851203 (18-week access)  
OR  
MyMathLab Access ISBN: 9780136661924 (24-month access)  
**Optional:** Physical Textbook ISBN: 9780135851258

**MATERIALS REQUIRED:**

For this course, students should have the following:

1. Access to the textbook (see above)
2. Scientific Calculator (optional)
3. Spiral/Notebook/Paper to take notes
4. Pencil and Eraser – Students should avoid using pen in this course
5. Graph paper

**COURSE DESCRIPTION:**

An introductory study of the analysis and application of systems of linear equations, vector spaces, matrices, and linear transformations, including computer-based linear algebra.

**COURSE OBJECTIVES:**

Students that successfully complete the course will, by the end of the course, be able to:

1. Analyze and solve systems of equations.
  - a. Determine if a system is linear.
  - b. Determine if a system is consistent and whether or not solutions are unique.
  - c. Solve systems using row reduction and analyze the system using pivot positions and free variables.
  - d. Solve systems using matrix factorizations.
  - e. Solve systems using matrix inverses.
  - f. Apply Cramer's rule.
2. Analyze and use the properties of vectors and vector spaces.
  - a. Use vector algebra
  - b. Determine whether or not a set of vectors is linearly independent.
  - c. Determine whether or not a set of vectors and its operations constitute a vector space.
  - d. Determine whether or not a subset of a vector space is a subspace.
  - e. Determine whether or not a set of vectors spans or is a basis for a vector space.
  - f. Compute a basis for and determine the dimension of a vector space.
  - g. Compute the coordinates of a vector with respect to a basis.
  - h. Compute the transition matrix between two bases.

- i. Determine whether a set and its product constitute an inner product space.
- j. Compute lengths, angles, distances, and orthogonal projections of vectors.
- k. Verify orthonormal bases and compute them using the Gram-Schmidt process.
- 3. Analyze and use the properties of matrices and linear transformations.
  - a. Use matrix algebra.
  - b. Compute the inverse, determinant, transpose, and eigenpairs of a matrix.
  - c. Compute and apply decompositions of matrices, such as LU decompositions, singular-value decompositions, diagonalizations, and orthogonal diagonalizations of symmetric matrices.
  - d. Use the Invertible Matrix Theorem.
  - e. Compute a basis for the row, column, and null spaces of a matrix.
  - f. Determine the rank and nullity of a matrix and know how they are related.
  - g. Determine whether or not a transformation is linear.
  - h. Determine whether or not a transformation is injective (one-to-one), surjective (onto), or bijective (both).
  - i. Compute the standard matrix, kernel, and range of a linear transformation.
- 4. Solve applied problems and use technology.
  - a. Set up and solve applied problems such as flow networks, electric circuits, population dynamics, Markov chains, etc.
  - b. Solve least-squares problems.
  - c. Use a computer program to perform the computational outcomes above.

### **ATTENDANCE REQUIREMENTS:**

Attendance is required at all sessions in each course. When circumstances make attendance impossible, you should notify the instructor of your absence. You are responsible for making sure you are caught up with the class lectures and assignments, so you're able to attend the next class session prepared.

### **WITHDRAW:**

If you are unable to attend the required sessions or complete the assignments and quizzes/tests successfully for a course, you should withdraw from the class after you have spoken with your instructor and academic advisor. **Instructors do not withdraw students.** Dual credit students must contact their high school counselor.

### **STUDENT EMAIL:**

Any announcements or messages sent through Canvas will also be sent to students' CCC email address. Students should check their CCC email at least daily in order to stay up-to-date on course information.

### **CANVAS SHELL:**

The Canvas Shell for this course will be used to post grades, send announcements, communicate via messaging, post homework assignments, and post handouts. Students should sign into the Canvas Shell at least once per day to ensure they are up-to-date with course information.

### **TECHNOLOGY REQUIREMENTS:**

Canvas is designed for maximum compatibility and minimal requirements. It is recommended to use a computer that is 5 years old or newer. Please [click here](#) to see basic computer specifications for Canvas.

### **COMPUTERS ON CAMPUS:**

Computers for student use are available on campus in the Center for Student Success (Room 171) or the Library. Staff will not instruct and/or tutor students regarding assignments. When in doubt, **CONTACT YOUR INSTRUCTOR**. Students needing tutoring assistance should go to the Tutoring Center (Room 415A).

**STARFISH:**

Clovis Community College uses **Starfish Early Alert** as a communication tool between students, faculty and campus support services. Throughout the term, you may receive emails in your CCC email account from Starfish regarding your course grades or academic performance. These emails are intended to help you be successful in your CCC courses. Please open the emails and follow the recommendations. Additionally, to make sure you are receiving the support you need, your instructor or your advisor may ask to meet with you to discuss your course progress or refer you to a campus service.

To access Starfish, log into Canvas and click the Starfish link. To learn more about Starfish, visit “Starfish for Students” at <http://www.clovis.edu/students/starfish.aspx> . If you need assistance with Starfish, email the help desk at [helpdesk@clovis.edu](mailto:helpdesk@clovis.edu).

**MAKE-UP WORK:**

No make-up work is available for this course, but each student’s two lowest homework grades will be dropped and will not count towards their final course grade. If a student must be absent on the day of an exam, they should let the instructor know before the scheduled test time so that a make-up exam can be scheduled.

**GRADING POLICY:**

Grades in this course will be based on the following:

1. Homework Assignments – Homework assignments will be assigned on MyMathLab. There will be one homework assignment for each section covered in the textbook. Homework will be due on Sunday at 11:59pm each work. No late work will be accepted. Each question on the homework will hold equal weight, with the points-per-question being determined by the total number of questions. The lowest two homework grades will be dropped.
2. Unit Exams – This course is separated into three units. The first unit consists of Chapters 1 and 2; the second unit consists of Chapters 3, 4, and 5; and the third unit consists of Chapters 6 and 7. The first two units will have an accompanying Unit Exam. The third unit will not have a separate exam due to time constraints. Each Unit Exam will only consist of questions from that unit. The exams will be held in class on the listed date. Point values for the questions on the exam will be listed on the exam itself. Each Unit Exam will have a review which will count as a homework grade.
3. Final Exam – The Final Exam for this course will be comprehensive, meaning it will consist of questions from the entire semester. Students must take the exam at the assigned day/time, which is listed in the syllabus. There will be a review for the Final Exam which will count as a homework grade

**ASSIGNMENTS: POINTS /PERCENT OF COURSE GRADE:**

Homework	35%
Unit Exams	40%
Final Exam	25%

**GRADING SCALE:** Student final grades are based on overall performance in class.

900-1000 points	A
800-899 points	B
700-799 points	C
600-699 points	D
599 and below	F

**QUALIFIED STUDENTS WITH DISABILITIES:**

Qualified students who have a disability that may require some special arrangements in order to meet course requirements should contact the Special Services Office (769-4099) in the Dr. H. A. Miller Student Services Center as soon as possible to ensure that their needs are appropriately met. In an effort to ensure students have the support necessary to be successful, Clovis Community College has an Early Alert Referral Program through Starfish. Instructors may make a referral for students that could benefit from additional support outside the classroom. Students may also request a referral.

**COPYRIGHT:**

It is the policy of Clovis Community College to respect the right of those who create and publish intellectual property in the form of printed matter, film, video, audio recordings, computer software and the like. The items posted on the website for this course are copyright by the Publisher and by CCC. No student has the right to use the material for any means other than originally intended. CCC respects copyright laws and insists that its faculty, staff and students do likewise. Students should not distribute email document attachments or post information on any CCC site containing copyrighted material unless the right to do so has been granted by the copyright holder.

**EMERGENCY ALERT:**

In case of campus closure, a recording will be placed on the switchboard (575-769-2811) and the CCC website ([www.clovis.edu](http://www.clovis.edu)) to announce the cancellation of classes or closure of the college. You may sign up for text and email alerts at [www.clovis.edu/getrave](http://www.clovis.edu/getrave).

**ACADEMIC DISHONESTY:**

Academic dishonesty includes plagiarism and other forms of cheating behavior as described in the college catalog. Academic dishonesty is unacceptable at Clovis Community College and in this course. Students committing acts of academic dishonesty shall be penalized by the assignment of lowered or failing grades on assignments and/or for the entire course, depending upon the instructor's evaluation of the severity of the dishonest act. Consult the college catalog for more information on the institutional policy on academic integrity.

**TECHNICAL SUPPORT:**

CCC Help Desk (Room 119) support is available by emailing [helpdesk@clovis.edu](mailto:helpdesk@clovis.edu) or by calling 575-769-4969. Be sure to visit the [Canvas Student Orientation](#) site if you need help navigating our online classroom. You may also find answers to common questions / problems on [Canvas FAQs](#). To see the Help Desk hours of operation, please visit <http://www.clovis.edu/helpdesk/>.

## COURSE SCHEDULE / CALENDAR

Week #	In-Class Lessons and Homework Due on Sunday at 11:59pm
1	<ol style="list-style-type: none"> <li>1. Course Introduction</li> <li>2. Section 1.1: Systems of Linear Equations</li> <li>3. Section 1.2: Row Reduction and Echelon Forms</li> </ol>
2	<ol style="list-style-type: none"> <li>1. Section 1.3: Vector Equations</li> <li>2. Section 1.4: The matrix Equation <math>Ax=b</math></li> <li>3. Section 1.5: Solution Sets of Linear Systems</li> </ol>
3	<ol style="list-style-type: none"> <li>1. Section 1.6: Applications of Linear Systems</li> <li>2. Section 1.7: Linear Independence</li> <li>3. Section 1.8: Introduction to Linear Transformations</li> </ol>
4	<ol style="list-style-type: none"> <li>1. Section 1.9: The Matrix of a Linear Transformation</li> <li>2. Section 1.10: Linear Models in Business, Science, and Engineering</li> <li>3. Section 2.1: Matrix Operations</li> </ol>
5	<ol style="list-style-type: none"> <li>1. Section 2.2: The Inverse of a Matrix</li> <li>2. Section 2.3: Characterizations of Invertible matrices</li> <li>3. Section 2.4: Partitioned Matrices</li> </ol>
6	<ol style="list-style-type: none"> <li>1. Section 2.5: Matrix Factorizations</li> <li>2. Section 2.8: Subspaces of <math>R_n</math></li> <li>3. Section 2.9: Dimension and Rank</li> <li>4. Complete Unit Exam #1 Review on MyMathLab</li> </ol>
7	<ol style="list-style-type: none"> <li>1. <b>Unit Exam #1 on Monday</b></li> <li>2. Section 3.1: Introduction to Determinants</li> </ol>
8	<ol style="list-style-type: none"> <li>1. Section 3.2: Properties of Determinants</li> <li>2. Section 3.3: Cramer's Rule, Volume, and Linear Transformations</li> <li>3. Section 4.1: Vector Spaces and Subspaces</li> </ol>
9	<ol style="list-style-type: none"> <li>1. Section 4.2: Null Spaces, Column Spaces, and Linear Transformations</li> <li>2. Section 4.3: Linearly Independent Sets; Bases</li> <li>3. Section 4.4: Coordinate Spaces</li> </ol>
10	<ol style="list-style-type: none"> <li>1. Section 4.5: The Dimension of a Vector Space</li> <li>2. Section 4.6: Change of Bases</li> <li>3. Section 5.1: Eigenvectors and Eigenvalues</li> </ol>
11	<ol style="list-style-type: none"> <li>1. Section 5.2: The Characteristic Equation</li> <li>2. Section 5.3: Diagonalization</li> <li>3. Section 5.4: Complex Eigenvalues</li> <li>4. Complete Unit Exam #2 Review on MyMathLab</li> </ol>
12	<ol style="list-style-type: none"> <li>1. <b>Unit Exam #2 on Monday</b></li> <li>2. Section 6.1: Inner Product, Length, and Orthogonality</li> </ol>
13	<ol style="list-style-type: none"> <li>1. Section 6.2: Orthogonal Sets</li> <li>2. Section 6.3: Orthogonal Projections</li> <li>3. Section 6.4: The Gram-Schmidt Process</li> </ol>

<b>14</b>	<ol style="list-style-type: none"> <li>1. Section 6.5: Least-Squares Problem</li> <li>2. Section 6.6: Machine Learning and Linear Models</li> <li>3. Section 7.1: Diagonalization of Symmetric Matrices</li> </ol>
<b>15</b>	<ol style="list-style-type: none"> <li>1. Section 7.2: Quadratic Forms</li> <li>2. Review for Final Exam</li> <li>3. Complete Final Exam Review on MyMathLab</li> </ol>
<b>16</b>	<b>1. FINAL EXAM ON MONDAY</b>

## **Rubric for Essay Papers/Term Paper (Graded On A 100 Point Scale):**

**The Essay Rubric:** This rubric is used for grading certain written assignments, such as the term paper. Follow all instructions for the individual assignments (provided separately from this rubric). This is a longer and more complex rubric than the others used for this course. Because of its complexity take extra time to study to give yourself an idea of what will count towards your paper grade. Look in the syllabus for an explanation of how to read a rubric.

The four categories of Writing & Organization, Research & Factual Understanding, Analysis, and Synthesis (diverse perspectives) are weighted equally towards the 100 points. Thesis is a subcategory of Writing & Organization, and the 5 maximum points for the thesis are added to the 20 maximum points of Writing and Organization.

**Unsatisfactory:** If any category fails to meet the minimum requirements for *Needs Work*, it will be considered unsatisfactory and will earn 0 points. Note that if there is no attempt to include citations or some sort of list of sources the research category will be unsatisfactory and earn a grade of 0. If the paper is on an inappropriate topic (not something covered that semester) it may also earn 0 points total.

**Paper grade:** The final paper grade is the total of the points awarded for each category added together. Remember that categories are somewhat dependent upon each other. For example, it will be difficult to have an accomplished analysis if the research and factual understanding are only at the *Needs Work* level.

<b>Dimensions:</b>	<b>(24-25) Accomplished if all:</b>	<b>(21-22) Competent if all</b>	<b>(18-19) Acceptable if all:</b>	<b>(15-16) Needs work if ANY</b>
Writing & Organization (20 of 25 pts)	All directions followed. No writing errors. Writing enhances understanding of paper.	All directions followed. Only minor writing errors that do not detract from understanding.	Directions not completely followed, or writing errors that do detract from overall understanding, but in either case paper still meets acceptable standard.	Directions not followed. Significant writing errors that detract from understanding. Fails to meet basic standard of writing.
Thesis Statement (5 of 25) CLO:1,2; ESO:CRT	Thesis as competent but also demonstrates insight and sophisticated understanding.	Thesis includes all required elements, is on appropriate topic, and is clearly written.	Thesis includes all required elements and is on appropriate topic, but may not be clearly written.	Thesis does not include all necessary elements, and/or is not on appropriate topic, and/or is unclear.
Research & Factual Understanding  CLO:1,3; ESO:INF&DIG (25 pts)	Citations and bibliography complete with no errors. Research exceeds requirements and enhances understanding. No factual errors and demonstrates strong factual understanding going beyond what was presented in class. Understanding of relevant facts and context fully supports thesis and enhances analysis.	Citations include all necessary information with only minor errors. Research meets all requirements and does not detract from understanding. No serious factual errors and some evaluation of facts demonstrates some factual understanding. Understanding of relevant facts and context sufficient to support analysis and thesis.	Citations include all necessary information with only minor errors, but may be incomplete. Research meets requirements at a minimum level. No serious factual errors and some evaluation of facts demonstrates some factual understanding. Basic understanding of relevant facts and context sufficient to support a partial analysis and thesis.	Significantly incomplete or improper citations and/or bibliography. Research does not meet requirements. Some sources not reliable or relevant or appropriate and detract from understanding. Poor/no factual understanding, which does not reflect what was presented in class/readings. Understanding of facts does not support thesis & analysis.



Analysis (CLO:2,4; ESO:CRT (25 pts)	Analysis supported by strong research and logical thinking. Strong conclusion. Analysis exceeds what was presented in class, demonstrates sophistication and/or insight or creative thinking. Historical awareness evident throughout analysis.	Analysis supported by appropriate research and some logical thinking. Clear conclusion meets requirements. Partially developed but coherent analysis with some interpretation/evaluation, but may not be thorough or complete. Some historical awareness evident.	Incomplete analysis supported by some research and some logical thinking. Conclusion partially developed, meets minimum requirements. Partially developed analysis with some interpretation/evaluation, but may not be thorough or complete. Some historical awareness evident.	Analysis is not supported by appropriate research, and/or insufficient logical thinking. Conclusion either too general, unfocused, or unsupported. Insufficient analysis and/or evaluation. Analysis may be simplistic, inappropriate, or not relevant. Little/no historical awareness evident.
Synthesis (diverse perspectives) (25 pts) CLO:1-4; ESO:PSR	Fully integrates multiple viewpoints and diverse perspectives completely, accurately, and insightfully. May demonstrate creative or innovative thinking.	Some integration of multiple viewpoints, and some integration and comparison of diverse perspectives, but may be incomplete.	Limited integration of multiple viewpoints, and limited integration and comparison of diverse perspectives, but may be incomplete.	Sources are only loosely associated, and if more than one idea present, alternatives are not integrated. Ideas or perspectives adopted with little question. May treat other positions superficially or misrepresent them..

## **Rubric Integration with Course and Essential Skills Outcomes**

This table shows the links between rubric items and Course and Essential Skills outcomes, along with associated ESO rubric items that have been incorporated into this term paper rubric.

<i>Rubric dimension</i>	<i>CLO</i>	<i>ESO</i>
Writing & organization (thesis statement)	1,2	<b>Critical Thinking:</b> a) Problem setting (thesis statement)
Research & factual understanding	1,3	<b>Inf &amp; Dig literacy:</b> a) Authority and value of information; b) Information structures; d) Research as Inquiry <b>Critical thinking:</b> b) acquire evidence (not assessed separately from Inf Lit above)
Analysis	2,4	<b>Critical thinking:</b> c) Evidence Evaluation; d) Reasoning/Conclusion
Synthesis (of diverse perspectives)	1,2,3,4	<b>Personal and Social responsibility</b> a) Intercultural reasoning and competence; e) Civic knowledge and engagement

## New Mexico Tech—ARTH 2210 FCS Assignment.Assessment.Example.2

### FCS Assignment

(Communication through Visual Arts rather than through writing — emphasis on Creativity; Critical Thinking)

IMPORTANT: You are NOT graded on artistic ability. You are graded on how well your rendering shows the major aspects of each art style.

#### **Assignment Directions:**

1. Choose one of the following paintings:

Bellini, The Doge Leonardo Loredan, 1501-04

[https://en.wikipedia.org/wiki/Portrait\\_of\\_Doge\\_Leonardo\\_Loredan#/media/File:Giovanni\\_Bellini,\\_portrait\\_of\\_Doge\\_Leonardo\\_Loredan.jpg](https://en.wikipedia.org/wiki/Portrait_of_Doge_Leonardo_Loredan#/media/File:Giovanni_Bellini,_portrait_of_Doge_Leonardo_Loredan.jpg) (Links to an external site.)

OR

Vermeer, View of Delft, 1660-61

[https://en.wikipedia.org/wiki/View\\_of\\_Delft#/media/File:Vermeer-view-of-delft.jpg](https://en.wikipedia.org/wiki/View_of_Delft#/media/File:Vermeer-view-of-delft.jpg) (Links to an external site.)

2. Render it in three ways, a page for each rendering (This means you draw for each and use color if the style calls for it. You can do this with markers, paints, crayons, pastels, or digitally. You must make a jpeg for each.)

1. Create it in the Fauvist style
2. Create it in the Cubist style
3. Create it in the Surrealist style

I will evaluate your knowledge of the three above styles by how well you execute

the styles in your rendering of the painting you choose, not on your artistic ability.

**3. Make each of the three renderings a jpeg (not a pdf) and PASTE on your reply to this Discussion post.**

4. Then, describe in bullet points for each rendering these three things. And do this for each of the three renderings:

- your experience in rendering the art in that style
- what you accomplished “saying” or “expressing”
- the primary aspects of the painting style

**5. There is an opportunity for some extra credit points with this assignment in two ways:**

1. Your dedication to this assignment, meaning taking it seriously.
2. Commenting in supportive ways on at least 6 submissions by peers. Use their names when replying so I can follow to whom you are replying supportively.

<b>Critical Thinking for ARTH 2120 History of Art II</b> <b>Critical Thinking Component Skill:</b>	<b><u>Under-developed</u></b> Students do not demonstrate the ability to critically evaluate and problem solve issues relating to this course.	<b><u>Satisfactory level</u></b> Students are able to critically evaluate and problem solve using concepts and information introduced in this course	<b><u>Advanced level</u></b> Students demonstrate facility to critically evaluate and problem solve at a level beyond this level of Art History study
<b><u>Problem Setting:</u></b> How do I know what I am looking at- its cultural and historic context, and worldview?			
<b><u>Evidence Acquisition:</u></b> <b>Critical Content</b> What visual aspects of the artwork itself and/information from course readings, lectures and discussion can inform my answer?			
<b><u>Evidence Evaluation:</u></b> <b>Critical Content</b> How do the visual aspects of the artwork itself and/information from course readings, lectures and discussion inform my answer?			
<b><u>Reasoning Conclusion:</u></b> <b>Synthesis/Engagement</b> From this evidence, what is my formal analysis and the significant aspects of this artwork and why?			

# General Education Competency

## Scientific Reasoning Rubric

(Scientific method and problem solving.)

Criteria	Excellent (4)	Proficient (3)	Adequate (2)	Inadequate (1)
<b>Problem is recognized and investigative question is formulated</b>	<ul style="list-style-type: none"> <li>Problem is recognized and explained in detail.</li> <li>Investigative question is clearly formulated.</li> </ul>	<ul style="list-style-type: none"> <li>Problem is recognized and essentials are explained.</li> <li>Investigative question is formulated.</li> </ul>	<ul style="list-style-type: none"> <li>Problem is recognized and stated.</li> <li>Investigative question is outlined</li> </ul>	<ul style="list-style-type: none"> <li>Problem is not recognized or only parts of problem are recognized.</li> <li>Investigative question is not formulated, unclear or incomplete.</li> </ul>
<b>Reasonable, testable hypothesis is presented</b>	<ul style="list-style-type: none"> <li>Hypothesis is reasonable, clearly stated, and fully explains question.</li> </ul>	<ul style="list-style-type: none"> <li>Hypothesis is reasonable and answers question.</li> </ul>	<ul style="list-style-type: none"> <li>Hypothesis is reasonable, and somewhat addresses question.</li> </ul>	<ul style="list-style-type: none"> <li>Hypothesis does not answer question, is untestable or is not presented.</li> </ul>
<b>Prediction is formulated as logical consequence of the hypothesis</b>	<ul style="list-style-type: none"> <li>Prediction is logical and fully explained.</li> </ul>	<ul style="list-style-type: none"> <li>Prediction is logical and well formulated.</li> </ul>	<ul style="list-style-type: none"> <li>Prediction is logical and reasonably outlined.</li> </ul>	<ul style="list-style-type: none"> <li>Prediction is unclear, does not follow logically from hypothesis or is not presented.</li> </ul>
<b>Data/observations to test hypothesis are gathered or compiled</b>	<ul style="list-style-type: none"> <li>High quality data and/or high quantity of suitable data gathered and presented professionally (list or table).</li> </ul>	<ul style="list-style-type: none"> <li>Quality/ quantity of suitable data gathered that fully justifies conclusion.</li> </ul>	<ul style="list-style-type: none"> <li>Quality/ quantity of suitable data gathered and sufficiently presented to justify conclusion, but student may have overlooked some data.</li> </ul>	<ul style="list-style-type: none"> <li>Data unsuitable to test hypothesis; little or no data gathered.</li> </ul>

<b>Formulation of a conclusion</b>	<ul style="list-style-type: none"> <li>• Conclusion is logical and well formulated.</li> <li>• Conclusion explains in detail the degree of correctness of the hypothesis and identifies further avenues of testing, or formulates new hypothesis.</li> </ul>	<ul style="list-style-type: none"> <li>• Conclusion is logical.</li> <li>• Conclusion explains the degree of correctness of the hypothesis.</li> </ul>	<ul style="list-style-type: none"> <li>• Conclusion is coherent.</li> <li>• Conclusion addresses the degree of correctness of the hypothesis.</li> </ul>	<ul style="list-style-type: none"> <li>• Conclusion is incoherent or not presented.</li> <li>• Conclusion does not explain the degree of correctness of the hypothesis.</li> </ul>
------------------------------------	--	--	--	--

## Economic Geography

### Directions and Grading Rubric for Critical Analysis Papers

**Directions:** *Your paper should be divided into sections as follows. Include the title of each section.*

2 pt. **“Title”** – *based on your assessment not the title of the article.*

10 pts. **Economic Context** – What type of economics (subject)? Is the author valid? Where is it being written? *Include the short range objective from your syllabus that relates to the article and why.*

20 pts. **Thesis** – *Author’s thesis in your own words. (Identify and summarize the problem or question)*

26 pts. **Evidence to Support Thesis:**

1. *Include the author’s evidence (in quotes) then interpret (in your own words) how the evidence supports the author’s thesis.*
- 2.
- 3.

16 pts. **Conclusion** – *Author’s conclusion (deduction.) What did the author determine (in your own words)? Justify all key results and/or procedures.*

26 pts. **Thesis Assessment** – *Student states if they agree/don’t agree and why. Make and explain assumptions and reasons that lead to conclusions.*

**Grammar and spelling** – 1-3 mistakes (-3pts), 4-6 mistakes (-5pts), 7-10 mistakes (-10pts) 11+ mistakes (-25pts)

Paper should not be more than one page with one-inch margins. Font should be Times New Roman 12 point. Papers are due at the beginning of class on the due date.

**\*\*\*Papers must be submitted on Canvas. \*\*\***

**Rúbrica:**

<b>Categoría</b>	<b>Puntos</b>
<b>La propuesta.</b> Your proposal includes the requested information (a specific topic and country in America Latina), and formulates a clear research question that you plan to investigate in your research and presentation.	/10
<b>El esbozo y la bibliografía.</b> Your outline contains a thesis statement that indicates your reflection on the topic and responds to your research question. You include the requested number of main points and sub-points for the body of your presentation. Your bibliography includes appropriate sources, including basic information from Wikipedia and other, more specialized sources.	/15
<b>La presentación Google Slides/PowerPoint.</b> Your presentation is well organized and contains an initial “thesis slide,” 5-7 slides for the body of your presentation, and a “conclusion slide” that sums up your presentation and re-frames it to speak to broader, region-wide or global issues. Your text is well edited and incorporates vocabulary and grammatical structures from our lessons this semester. You incorporate extensive visuals: each slide should have some sort of visual information to complement the text. Finally, you cite textual and visual sources, either via hyperlink or using MLA format.	/45
<b>El video de la presentación.</b> Your video recording shows evidence that you have rehearsed and practiced the material. Your delivery is natural, and you utilize the formal register in addressing yourself to your audience. You do not simply read off of the slides—you expand each point, and add to the textual information in your presentation. (Note: no more than 15-20% of your words should be present on the slides themselves). You utilize your visual materials effectively. They are not merely decorative.	/30
<b>Total</b>	<b>/100</b>



Student's Name: \_\_\_\_\_

**Concert Review and Critique Rubric**

<b>Criteria</b>	<b>Exemplary (15)</b>	<b>Developed (10)</b>	<b>Limited (0-5)</b>
<b>Structural Elements</b>	All of the relevant information listed in the assignment is correct and included.	One piece of relevant information is missing from the assignment.	More than one piece or all of the information is missing from the assignment.
<b>Analyze</b>	All five topics in the category are addressed in the review.	One category is missing.	More than one category is missing.
<b>Evaluate</b>	The evaluation is thorough, thoughtful, and demonstrates a working understanding of the purpose of fine arts performance.	The evaluation is limited in scope or length; demonstrates limited understanding.	The evaluation is incomplete, missing, or does not address the questions in the assignment.
<b>Personal Opinion</b>	Opinion address all four questions in the assignment clearly.	One question is unaddressed.	More than one question is unaddressed.
<b>Format and Considerations</b>	Student meets all editing and format criteria. Syntax/grammar/spelling errors are limited or non-existent.	Some minor errors are present in grammar/syntax/spelling.	Paper is unedited and format has not been followed.

Grade: \_\_\_\_\_/75 points =

<b>Points Range</b>	<b>% Range</b>	<b>Grade</b>
68-75	100% - 90%	A
60-67	89% - 80%	B
53-66	79% - 70%	C
45-52	69% - 60%	D

## Grading Rubric for Case Study 1 (Vaccine Trials)

10-point scale

### Overall:

1. **Completeness:** /5

2. **Clarity:** /3

3. **Resourcefulness:** /2

### 1. Completeness (5 points):

- Length: 2 full pages (not including citations)
- Structure: Contains the following 3 elements:
  - An ethical argument, with a clear judgment (for/against) and grounds (ethical reasons and empirical support)
  - Discussion of conditions for an ethical trial, with a clear judgment and ethical grounds, and connections to the argument
  - Discussion of strengths and weaknesses, such as objections, responses, counterarguments, and additional supporting arguments
- **Complete:** 5- Structurally complete. Case study carefully examines different aspects of human subjects research, proposes a clear ethical argument, along with conditions for an ethical trial, then critically discusses the strengths and weaknesses of their position.
- **Minor issues with completeness:** 4.5- All elements present, but paper too short by half a page (gratuitous spacing) OR Nearly complete, only missing one element, namely a proposal of action, or discussion of weaknesses
- **Major issues with completeness:** 4- Missing two major elements, namely a proposal of action, or an objection-response pair,

### 2. Clarity (3 points):

- Position and judgment
  - i. Coherence and consistency throughout
  - ii. Intelligibility throughout
- Logic
  - i. Appropriate use of grounds

- ii. Well targeted objections and responses
- iii. Avoids logical fallacies

- **Very clear:** 3- Clearly argued and consistent, with detailed engagement on the different ethical aspects of the case.
- **Minor issues with clarity:** 2.5- Clearly argued and well structured, only lacking in some elaboration of arguments, particularly in ethical terms, or some weakness in argumentation, including 1 fallacy.
- **Major issues with clarity:** 2- Argument proposal not clear, either in terms of grounds or claim, including 2 fallacies.

### 3. Resourcefulness (2 points)

- Able to deal skillfully with new situations and their nuances
- Avoids black/white thinking, exposes tensions
- Skill use of ethical grounds for arguments, including
  - Ethical principles and guidelines
  - Other moral and practical considerations
  - Strengths and weaknesses of an approach
  - Different stakeholders
- **Very resourceful:** 2- Adroit engagement with the case and its ethical nuances, and skillful use of ethical grounds for argumentation.
- **Minor issues with resourcefulness:** 1.5- Adequate engagement with case and reasonable proposal for action, but a bit black/white argumentation: missing some attention to nuance and lacking some skill in practical reasoning.
- **Major issues with resourcefulness:** 1- No significant attempt to engage with the nuances of the case.

### Overall

10/10 (100% A+) **Excellent case study.** Keep up the stellar work, especially in terms of

9.5/10 (95% A) **Very good case study.** Complete, clear, and resourceful in nearly all elements. Keep up the great work!

9/10 (90% A-) **Good case study.** Good work in terms of \_\_\_\_\_, but case study needs more attention to elaboration of ethical grounds and more nuanced thinking.

8.5/10 (85% B) **Average quality case study.** Good work in some areas, but case study needs more \_\_\_\_\_.

8/10 (80% B-) **Below average case study.**

Revised 9/28/20

7.5/10 (75% **C**) **Low quality case study.** The argument is [very rushed,] as well as the objections and responses. I know you can provide a much more compelling and detailed analysis. See me for more advice.

7/10 (70% **C-**) **Poor quality case study.** The argument is based on a severe misunderstanding ..... Ethical grounds are also unclear and need more elaboration and connection to moral principles. See me for more advice as how to avoid these mistakes in your next paper.

6.5/10 (65% **D**)

6        60

5.5     55

5        50

## **Grades**

**A** (100-93%),

**A-** (92-90%),

**B+** (89-87%),

**B** (86-83%),

**B-** (82-80%),

**C+** (79-77%),

**C** (76-73%),

**C-** (72-70%),

**D** (69-60%), and

**F** (<60%).