

# Humanities, Arts, and Social Sciences

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## Program Description

As the twenty-first century unfolds, individuals, communities, and nations face major challenges in energy, natural resources, and the environment. While these challenges demand practical ingenuity from engineers and applied scientists, solutions must also take into account social, political, economic, cultural, ethical, and global contexts. Mines students, as citizens and future professionals, confront a rapidly changing society that demands core technical skills complemented by flexible intelligence, original thought, and cultural sensitivity.

Courses in Humanities, Arts, and Social Sciences Department (HASS) expand students' professional and personal capacities by providing opportunities to explore the humanities, social sciences, and fine arts. Our curricula encourage the development of critical thinking skills that will help students make more informed choices as national and world citizens – promoting more complex understandings of justice, equality, culture, history, development, and sustainability. Students, for example, study ethical reasoning, compare and contrast different economies and cultures, develop arguments from data, and interrogate globalization. HASS courses also foster creativity by offering opportunities for self-discovery. Students conduct literary analyses, improve communication skills, play music, learn media theory, and write poetry. These experiences foster intellectual agility, personal maturity, and respect for the complexity of the world.

## Undergraduate Humanities and Social Science

### Educational Objectives

In addition to contributing to the educational objectives described in the Mines Graduate Profile and the ABET accreditation criteria, the coursework in the department of Humanities, Arts, and Social Sciences is designed to help Mines develop in students the ability to engage in life-long learning and recognize the value of doing so by acquiring the broad education necessary to

1. Understand the impact of engineering solutions in contemporary, global, international, societal, political, and ethical contexts.
2. Understand the role of Humanities and Social Sciences in identifying, formulating, and solving engineering problems.
3. Prepare to live and work in a complex world,
4. Understand the meaning and implications of "stewardship of the Earth."
5. Communicate effectively in writing and orally.

## Music (LIMU)

Courses in Music do not count toward the Culture and Society restricted-elective requirement, but may be taken for **free elective credit only**. **A maximum of 3 semester hours of concert band, chorus, physical education, athletics, or other activity credit combined may be used toward free elective credit in a degree-granting program.**

## Foreign Language (LIFL)

Typically, several foreign languages are taught through the department. In order to gain basic proficiency from their foreign language study, students are encouraged to enroll for at least two semesters in whatever language(s) they elect to take. **No student is permitted to take a foreign language that is either his/her native language or second language.**

## Undergraduate Minors

At the undergraduate level, Humanities, Arts, and Social Sciences offers minors in Culture, Creativity, and Communication; Environment and Sustainability Studies; Global Politics and Society; Music, Audio Engineering, and Recording Arts; and an Individualized Undergraduate minor. See the minor tab for details.

## Graduate Degree and Programs

At the graduate level, Humanities, Arts, and Social Sciences offers a 30-hour degree. It also offers graduate certificates and graduate minors in Natural Resources and Energy Policy (NREP). See the graduate catalog for details.

## Hennebach Program in the Humanities

The Hennebach Program in the Humanities, supported by a major endowment from Ralph Hennebach (CSM class of 1941), sponsors a regular series of Visiting Professors and the general enhancement of the humanities on campus. Recent visiting professors have included scholars in Classics, Creative Writing, Environmental Studies, Ethics, History, Literature, Philosophy, and Social Theory as well as the interdisciplinary fields of Environmental Policy and Science, Technology, and Society Studies. The program is dedicated to enriching the lives of both students and faculty through teaching and research, with visiting scholars offering courses, giving lectures, conducting workshops, and collaborating on projects. In addition, the Hennebach Program is exploring opportunities for meeting the needs of undergraduate students who would especially benefit from more focused study in the humanities that would appropriately complement technical degree curricula.

## Culture and Society

Culture and Society courses provide cultural and social perspectives to advance students' understanding of the contemporary, global world. These courses help students contextualize scientific and technical knowledge and practice to better understand their potential impacts on people, organizations, the economy, and the environment. Culture and Society courses also enhance students' abilities to communicate, explore diverse perspectives, and grapple with ethics and professional responsibilities. Ultimately, these courses provide the opportunity for students to explore what it means to be human in an interconnected world.

The 9 credits of mid-level and 400-level CAS electives must meet the following requirements:

- At least 3 credits must be at the 400-level.
- At least 3 credits must have a HASS course code.
- No more than 6 credits can have the LIFL (Foreign Languages) course code.
- Courses with the LIMU (Music) course code cannot be used to satisfy this requirement.

- HASS498 special topic courses can be used to satisfy this requirement. #EBGN498 and #EDNS498 special topic courses will be determined to satisfy this requirement on a course-by-course basis, and that determination will be made prior to the beginning of the term the course is offered.
- Except for foreign languages, no AP or IB credit can be used to meet this requirement. (AP/IB credits will be applied as free electives.)
- Single majors in Economics cannot use courses with the EBGN course code to satisfy this requirement.

## Culture and Society Electives

HASSXXX	All courses with the HASS prefix are eligible for CAS credit	
LIFLXXX	All LIFL courses are eligible for CAS (midlevel) credit	
HNRSXXX	All HNRS courses are eligible for CAS credit (see your advisor)	
<b>Economics and Business Courses approved for CAS credit</b>		
EBGN201	PRINCIPLES OF ECONOMICS	3.0
EBGN301	INTERMEDIATE MICROECONOMICS	3.0
EBGN302	INTERMEDIATE MACROECONOMICS	3.0
EBGN310	ENVIRONMENTAL AND RESOURCE ECONOMICS	3.0
EBGN320	ECONOMICS AND TECHNOLOGY	3.0
EBGN330	ENERGY ECONOMICS	3.0
EBGN340	ENERGY AND ENVIRONMENTAL POLICY	3.0
EBGN430	ADVANCED ENERGY ECONOMICS	3.0
EBGN434	PROPERTY RIGHTS AND NATURAL RESOURCES	3.0
EBGN437	REGIONAL ECONOMICS	3.0
EBGN441	INTERNATIONAL ECONOMICS	3.0
EBGN443	PUBLIC ECONOMICS	3.0
EBGN470	ENVIRONMENTAL ECONOMICS	3.0
<b>Engineering, Design, and Society courses approved for CAS credit</b>		
EDNS315	ENGINEERING FOR SOCIAL AND ENVIRONMENTAL RESPONSIBILITY	3.0
EDNS477	ENGINEERING AND SUSTAINABLE COMMUNITY DEVELOPMENT	3.0
EDNS478	ENGINEERING AND SOCIAL JUSTICE	3.0
EDNS479	COMMUNITY-BASED RESEARCH	3.0
EDNS480	ANTHROPOLOGY OF DEVELOPMENT	3.0
<b>Other courses approved for CAS credit</b>		
MNGN335	COMMUNITIES AND NATURAL RESOURCE DEVELOPMENT	3.0
PEGN430	ENVIRONMENTAL LAW AND SUSTAINABILITY	3.0
SCED333	EDUCATIONAL PSYCHOLOGY AND ASSESSMENT	3.0
SCED363	DYNAMIC TEACHING: MOTIVATION, CLASSROOM MANAGEMENT, AND DIFFERENTIATION OF INSTRUCTION	3.0
SCED415	SCIENTIFIC PRACTICES VS ENGINEERING DESIGN AND THE NATURE OF SCIENCE	3.0

The Mines guidelines for Minor/ASI can be found in the Undergraduate Information section of the Mines Catalog.

## Minor Programs

The Department of Humanities, Arts, and Social Sciences Studies (HASS) offers several minor programs. Students who elect to pursue a minor **usually** will satisfy the Culture and Society (CAS) requirements; however, the Music Technology ASI will not satisfy these requirements. Students will need to use free elective hours to complete a minor.

A minor requires a minimum of 18 credit hours; an area of special interest (ASI) requires a minimum of 12 credit hours. No more than half the credits to be applied toward a Humanities, Arts, and Social Sciences minor or ASI may be transfer credits. The Humanities, Arts, and Social Sciences undergraduate faculty advisor must approve all transfer credits that will be used for a Humanities, Arts, and Social Sciences minor or ASI.

The student must fill out a Minor/Area of Special Interest Declaration (available in the Registrar's Office) and obtain approval signatures from the student's Mines advisor, from the head or director of the student's major department or division, and from the Humanities, Arts, and Social Sciences faculty undergraduate advisor. Students should consult the listed program directors for the specific requirements of each minor.

The available minors or ASI's are listed below with their program directors.

Culture, Creativity, and Communication (CCC), Paul Farca; Environment and Sustainability Studies (ESS), Tina Gianquitto; Global Politics and Society (GPS), Derrick Hudson; Individualized Minor, Sandy Woodson.

## Minor in Culture, Creativity, and Communication

Given the diverse disciplinary and interdisciplinary interests of Mines students, the Culture, Creativity, Communication minor provides a flexible, interdisciplinary range of options so students can follow particular passions bolstered by distinctive, signature experiences. Students will take courses below as part of a pathway in Literature and Creative Writing, a pathway in Communication Studies, or an intellectually coherent pathway in both.

The CCC minor elevates student capacity for empathy, contextual understanding, intellectual versatility, creative cognition, and expressive clarity. This minor will help students who feel a passion for culture and the arts, and who yearn to explore diverse fields of literary studies, creative writing, and communication studies.

Students in the Culture, Creativity, Communication minor must complete 18 hours of coursework, selected with the guidance of a faculty advisor, from the courses below.

## Midlevel courses:

HASS303	FOUNDATIONS: THE ART AND CRAFT OF THE CREATIVE WRITING WORKSHOP	3.0
HASS201/303	WORKSHOP FOUNDATIONS: THE ART AND CRAFT OF CREATIVE WRITING (HASS201 new course number Spring2022->changed to HASS303)	3.0
or HASS303	FOUNDATIONS: THE ART AND CRAFT OF THE CREATIVE WRITING WORKSHOP	

HASS302	FOUNDATIONS IN CREATIVE WRITING	3.0
HASS300/300	INTERMEDIATE FICTION (Course number change Spring 2022->Now HASS302)	3.0
or HASS300	INTERMEDIATE FICTION	
HASS301	INTERMEDIATE POETRY WRITING WORKSHOP	3.0
HASS305	AMERICAN LITERATURE: COLONIAL PERIOD TO THE PRESENT	3.0
HASS307	EXPLORATIONS IN COMPARATIVE LITERATURE	3.0
HASS309	LITERATURE AND SOCIETY	3.0
HASS320	ETHICS	3.0
HASS323	INTRODUCTION TO SCIENCE COMMUNICATION	3.0

### 400-level courses (minimum of two):

HASS400	ADVANCED SHORT FICTION WRITING WORKSHOP	3.0
HASS401	ADVANCED POETRY WRITING WORKSHOP	3.0
HASS404	WOMEN, LITERATURE, AND SOCIETY	3.0
HASS406	THE LITERATURE OF WAR AND REMEMBRANCE	3.0
HASS407	SCIENCE IN LITERATURE	3.0
HASS408	CREATIVE NONFICTION WRITING: LIFE STORIES	3.0
HASS410	CRITICAL PERSPECTIVES ON 20TH CENTURY LITERATURE	3.0
HASS411	LITERATURES OF THE AFRICAN WORLD	3.0
HASS412	LITERATURE AND THE ENVIRONMENT	3.0
HASS415	MASS MEDIA STUDIES	3.0
HASS416	FILM STUDIES	3.0
HASS418	NARRATING THE NATION	3.0
HASS419	ENVIRONMENTAL COMMUNICATION	3.0
HASS423	ADVANCED SCIENCE COMMUNICATION	3.0
HASS425	INTERCULTURAL COMMUNICATION	3.0
HASS433	SHAKESPEARE AND THE SCIENTIFIC REVOLUTION	3.0

## Minor in Environment and Sustainability Studies

As environmental challenges mount across the world, governmental agencies, policy makers, industry, and others will look to engineers and scientists to develop innovative solutions to meet these pressing demands.

The Environment and Sustainability Studies minor provides political, social, cultural, economic, and historical perspectives on modern environmental challenges and equips students with the critical and analytical tools required to address contemporary environmental challenges. The curriculum further encourages students to transcend disciplinary boundaries by providing opportunities to integrate and synthesize the many strands of knowledge that bear on environmental issues. When combined with their technical, engineering, and/or scientific degrees, graduates will have added marketable skills, which can also be translated into environmental careers, or post-graduate programs.

The Minor in Environment and Sustainability Studies requires 18 credits of coursework:

- 15 credits of Culture and Society (CAS) electives, and
- 3 credits of restricted environmental science and engineering electives\*

\*Faculty involved in the Environment and Sustainability Studies minor will work with colleagues across campus to identify upper-division electives in environmental science and engineering that can fulfill this requirement.

Students may also include up to 3 credits of independent study with the approval of the ESS Director.

### Courses

HASS200: Global Studies: Environment: Students interested in the ESS Minor are encouraged to sign up for the Global Studies section focused on the environment. Please contact ESS Minor director for information on when this course is offered each semester.

## Minor requirements

- Choose five courses from the CAS list. At least three courses must be from HASS, with one at the 400-level. Up to two courses can be from Economics and Business (EBGN), Engineering, Design, and Society (EDNS), or the approved courses from Geology and Geophysics (GEOC) and Petroleum Engineering (PEGN).
- Choose one course from the restricted STEM electives. Other courses may be approved by the ESS director.

## Minor in Global Politics and Society (GPS)

The GPS minor (18 credits) prepares engineers and scientists with the knowledge and experience they need to tackle complex global issues and become leaders in their professional and personal lives within their own countries and in the global community. Drawing primarily from the social sciences, our classes link theories with real-world problems while enhancing students' analytical and communication skills. Courses provide the political, social, and historical contexts to better understand world regions, particularly ones with significant natural resource endowments. Topics include war, trade, energy, corruption, and religion. Fitting the Mines' mission, our courses bring a stronger focus to natural resources and energy issues than similar programs at other universities.

### Required Course: One of the following two courses

HASS460	GEOPOLITICS OF NATURAL RESOURCES	3.0
HASS344	INTERNATIONAL RELATIONS	3.0

### Electives

The remaining credits must come from the following courses. AT LEAST one must be a 400-level class.

#### Regional Focus

HASS339	MIDDLE EAST: POLITICS & SOCIETY	3.0
HASS411	LITERATURES OF THE AFRICAN WORLD	3.0
HASS437	ASIAN DEVELOPMENT	3.0
HASS439	MIDDLE EAST DEVELOPMENT	3.0

#### Global Focus

HASS307	EXPLORATIONS IN COMPARATIVE LITERATURE	3.0
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HASS431	MORAL PSYCHOLOGY, RELIGION, AND AMERICAN SOCIETY	3.0
HASS490	ENERGY AND SOCIETY	3.0
<b>Politics and Policy Focus</b>		
HASS486	SCIENCE AND TECHNOLOGY POLICY	3.0
HASS488	GLOBAL WATER POLITICS AND POLICY	3.0
HASS491	ENERGY POLITICS	3.0
<b>Foreign Languages</b>		
LIFL1XX	FOREIGN LANGUAGE <sup>Up to six hours</sup>	3-6

## Minor in Music, Audio Engineering, and the Recording Arts

Program Advisor: Jonathan Cullison

The Music, Audio Engineering, and the Recording Arts minor is designed for students interested in the crossover field between music and related technical skills. Technical emphasis within this minor creates an opportunity for the student to research/experience the impact of their specific majors upon both music as an art form and music as an industry.

Throughout the minor, students are exposed to the refinements and developments that technology has created in the field of recording, production, sound reinforcement, and product design as well as the interplay between the arts and technology. The discovery of connections between current music and sound engineering practices is stressed. The final outcome is a skilled and informed studio musician/technician in present-day studio conditions. Finally, this minor is not designed to expand any current engineering curriculum, but to complement a student's education.

Students desiring a Music, Audio Engineering, and the Recording Arts Minor must complete 18 credits of courses as follows:

Four *required* music courses (12 credits):

HASS324	AUDIO/ACOUSTICAL ENGINEERING AND SCIENCE	3.0
HASS327	MUSIC TECHNOLOGY	3.0
HASS315	MUSICAL TRADITIONS OF THE WESTERN WORLD	3.0
HASS330	MUSIC TECHNOLOGY CAPSTONE	3.0
<b>Total Semester Hrs</b>		<b>12.0</b>

One 400-level *required* course (3 credits):

HASS429	REAL WORLD RECORDING/RESEARCH	3.0
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Three additional credits:

HASS326	MUSIC THEORY	3.0
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### Performance Enhancement (3 credits total)

LIMU	ENSEMBLE <sup>Two semesters</sup>	
LIMU189	INDIVIDUAL INSTRUMENTAL OR VOCAL MUSIC INSTRUCTION <sup>One semester</sup>	

## Individualized Undergraduate Minor

Program Advisor: Prof. Sandy Woodson. Students declaring an Undergraduate Individual Minor in LAIS must choose 18 restricted-elective credits in LAIS with a coherent rationale reflecting some explicit focus of study that the student wishes to pursue. A student desiring this

minor must design it in consultation with a member of the LAIS faculty who approves the rationale and the choice of courses, e.g., pre-law or pre-med courses.

## Area of Special Interest in Music Technology

Program Advisor: Prof. Bob Klimek. The Area of Special Interest in Music Technology is comprised of a sequence of courses that allows students to combine interests and abilities in both the science and theory of music production. Completion of this ASI will train students in the technical aspects of the music recording industry, including sound and video recording, sound effects, and software design.

## Courses

### HASS100. NATURE AND HUMAN VALUES. 3.0 Semester Hrs.

Equivalent with

CSM191, CSM192, HNRS105, HNRS115, HNRS198A, LAIS100, Nature and Human Values (NHV) is a writing-intensive course, workshop, and discussion seminar that focuses on ethics and inquiry and uses humanities perspectives to examine big questions about the interdependence of human life, society, and the environment. The class links personal, professional, and environmental ethics to engineering, energy, and emerging technologies. Written and oral communication are stressed as a crucial component of professional and civic dialogue, while encouraging critical reading, thinking, and conversation about students' ethical obligations as world citizens with broader moral, social, and environmental responsibilities to stakeholders. The culminating research paper asks that students consider the ethical dimensions of their arguments within science and engineering contexts while engaging different viewpoints, evaluating sources, and supporting an original position. 3 hours seminar; 3 semester hours. Prerequisites: None. Corequisites: None.

### Course Learning Outcomes

1. Demonstrate understanding of major ethical theories and concepts and apply them to current and past debates on technology, resource use, and environmental issues.
2. Read and think critically about course reading assignments and lecture topics; discover personal biases and values, diverse perspectives, and rhetorical strategies.
3. Construct original written and oral arguments about course topics that are supported by relevant experts and accurately cited evidence.
4. Find and employ relevant research to writing assignments on engineering, ethics, and the environment; consistently and correctly cite use of sources in-text and in bibliographies.
5. Develop clear, readable, grammatical written work through a process of drafting and revision to produce strong summaries, analyses of texts, and researched arguments.
6. Demonstrate understanding of the impact of engineering and applied science in social, ethical, and environmental contexts.
7. Develop habits of mind while completing the coursework, such as curiosity, openness, engagement, creativity, persistence, responsibility, academic integrity, flexibility, and metacognition to help in a variety of learning contexts.

### HASS101. ACADEMIC ENGLISH PROFICIENCY. 3.0 Semester Hrs.

Academic English Proficiency will help non-native English speakers understand and apply advanced reading and writing skills required for success at the university level. Working with content from a wide range of academic and professional disciplines, students will master advanced grammar, inference, analysis, and vocabulary. The course will teach



students how to incorporate complex sentence structure, diverse clauses, and word forms to improve their composition abilities in multiple writing contexts. To support these components, students will also improve their reading fluency and comprehension through academic texts specifically chosen to engage English language learners. Content and coursework will promote critical thinking and responses in English. Overall, students will learn about the cultural expectations associated with academic writing in American universities.

#### Course Learning Outcomes

- 1. Construct and incorporate appropriate tenses and advanced grammar including, but not limited to, passive vs. active voice, subject-verb agreement, and conditional clauses
- 2. Understand American collegiate expectations and culture
- 3. Understand intellectual property and apply this concept to appropriate source citation
- 4. Accurately interpret oral and written information for research purposes
- 5. Integrate sources using reporting verbs and rhetorically correct vocabulary
- 6. Use adverbials, tense agreement and other linking techniques to improve cohesion in academic papers
- 7. Incorporate academic vocabulary and evaluate appropriate word choice and form
- 8. Read fluently and accurately by understanding inference and context

#### HASS111. NATURE AND HUMAN VALUES SHORT FORM. 2.0 Semester Hrs.

Nature and Human Values will focus on diverse views and critical questions concerning traditional and contemporary issues linking the quality of human life and Nature, and their interdependence. The course will examine various disciplinary and interdisciplinary approaches regarding two major questions: 1) How has Nature affected the quality of human life and the formulation of human values and ethics? (2) How have human actions, values, and ethics affected Nature? Themes will include professional ethics, environmental ethics, and ethics of justice. This course that will assess research skills and written argumentation and requires in-class discussion and written reflection on course content. Prerequisites: HASS110 or AP English score of 5.

#### Course Learning Outcomes

- 1. Identify and explain the historical, social, and cultural contexts that influence professions in science, technology, engineering, and mathematics and examine the impact of such work on social, environmental, and ethical systems
- 2. Identify issues key to the future of STEM fields such as equity, implicit bias, climate change, and environmental racism and discuss these issues in a professional context.
- 3. Analyze course reading assignments and lecture topics; (compare, contrast, and criticize); successfully interpret and demonstrate rhetorical strategies
- 4. Construct written and oral arguments about course topics that are supported by relevant experts and evidence
- 5. Find and employ relevant research to writing assignments; consistently cite use of sources in-text and in bibliographies

#### HASS125. BEGINNING DRAWING AND PAINTING. 1.0 Semester Hr.

This course is designed to be a friendly, practical introduction to drawing, painting, charcoal and mixed media approaches to creating art. In this class students learn basic approaches to creating visual art, which include color theory, composition, observation, and different kinds of subjects, e.g., landscape. The class is open to all skill levels, but is designed for beginners. Prerequisite: None. Co-requisite: None.

#### Course Learning Outcomes

- • Learn the basic elements of artistic compositions, e.g., sketching, color and value, shading and blending
- • Produce work using different media, e.g., pencil, charcoal, acrylic paint, found objects, paper, etc.
- • Incorporate/evaluate feedback and coaching
- • Articulate and justify artistic vision

#### HASS198. SPECIAL TOPICS. 1-6 Semester Hr.

(I, II) Pilot course or special topics course. Topics chosen from special interests of instructor(s) and student(s). Usually the course is offered only once. Prerequisite: none. Variable credit; 1 to 6 credit hours. Repeatable for credit under different titles.

#### HASS199. INDEPENDENT STUDY. 1-6 Semester Hr.

(I, II) Individual research or special problem projects supervised by a faculty member, also, when a student and instructor agree on a subject matter, content, and credit hours. Prerequisite: ?Independent Study? form must be completed and submitted to the Registrar. Variable credit; 1 to 6 credit hours. Repeatable for credit.

#### HASS200. GLOBAL STUDIES. 3.0 Semester Hrs.

Equivalent with LAIS200,SYGN200,  
Part of the Mines core curriculum, following the first-year requirement of HASS 100 (Nature and Human Values). Modern scientists and engineers operate in an increasingly interconnected world. This course is designed to enhance student capacity to understand, appreciate, and critically analyze the global contexts in which they will live and work. Course material examines the modern world through specific thematic lenses, with an emphasis on the major patterns of cultural, political, and/or environmental change. Students will develop original analysis through comparative empirical research on diverse societies and regions, and will communicate this analysis orally and in writing. Prerequisite: HASS100. 3 hours lecture; 3 semester hours.

#### Course Learning Outcomes

- 1. Examine and critically assess major cultural, political, and/or environmental patterns in the emergence of the modern world, with an emphasis on analytical comparisons across diverse regions and societies.
- 2. Identify and evaluate relevant empirical evidence from selected fields of study, and create persuasive arguments linking this evidence to larger trends, concepts, and themes covered in class.
- 3. Articulate and defend persuasive arguments related to the above subject matter, orally and in writing.

#### HASS201. WORKSHOP FOUNDATIONS: THE ART AND CRAFT OF CREATIVE WRITING. 3.0 Semester Hrs.

Equivalent with LAIS201,  
(WI) This course examines the major patterns of modern and contemporary written forms. Topics analyzed include poetics, prose and creative nonfiction, and the personal or lyric essay. Poetics will focus on writing from imagism to modernism to beat and hippy writing, up to contemporary and postmodern poetry. Prose writing will examine the development of the shorts story from inception to contemporary approaches. Analysis of historical trends and change will also serve as a basis for developing student writing habits and strategies. Over the course of the semester, these subjects will be addressed through seminars, readings, workshops, and in-class discussion and activities. Prerequisites: HASS100. Corequisite: HASS200. 3 hours seminar; 3 semester hours.

**HASS202. TECHNICAL COMMUNICATION. 3.0 Semester Hrs.**

(I) Technical Communication introduces students to the written and oral communication of technical information, and prepares students for effective professional communication. The course covers workplace writing, such as memos, proposals, and reports, visual communication, best practices for layout and design, ethical practices in the workplace, multimodal communication technologies, and oral presentations. 3 hours lecture; 3 semester hours.

**HASS220. INTRODUCTION TO PHILOSOPHY. 3.0 Semester Hrs.**

Equivalent with LAIS220,

A general introduction to philosophy that explores historical and analytic traditions. Historical exploration may compare and contrast ancient and modern, rationalist and empiricist, European and Asian approaches to philosophy. Analytic exploration may consider such basic problems as the distinction between illusion and reality, the one and the many, the structure of knowledge, the existence of God, the nature of mind or self. Prerequisite: HASS 100. Corequisite: HASS 200. 3 hours lecture; 3 credit hours.

**HASS221. INTRODUCTION TO RELIGIONS. 3.0 Semester Hrs.**

Equivalent with LAIS221,

This course has two focuses. We will look at selected religions emphasizing their popular, institutional, and contemplative forms; these will be four or five of the most common religions: Hinduism, Buddhism, Judaism, Christianity, and/or Islam. The second point of the course focuses on how the Humanities and Social Sciences work. We will use methods from various disciplines to study religion-history of religions and religious thought, sociology, anthropology and ethnography, art history, study of myth, philosophy, analysis of religious texts and artifacts (both contemporary and historical), analysis of material culture and the role it plays in religion, and other disciplines and methodologies. We will look at the question of objectivity; is it possible to be objective? We will approach this methodological question using the concept ?standpoint.? For selected readings, films, and your own writings, we will analyze what the ?standpoint? is. Prerequisite: HASS 100. Corequisite: HASS 200. 3 hours lecture; 3 semester hours.

**HASS226. BEGINNING CLASS PIANO AND FUNDAMENTALS OF MUSIC. 3.0 Semester Hrs.**

Equivalent with LAIS226,

HASS 226 is a beginning keyboard class. Students will learn to read music, develop fundamental keyboard skills, grasp basic music theory and history concepts, and understand the communal nature of music through ensemble preparation and public performance. Assessment will be based on class participation, written exams, student reflection papers, written and aural homework assignments, and public performances in class. The course will be a recommended, but not required, prerequisite for HASS 326 (Music Theory) and HASS 328 (Basic Music Composition and Arranging). Prerequisite: HASS100. Corequisite: HASS 200. 3 hours lecture; 3 semester hours.

**HASS227. BEGINNING ORCHESTRAL STRINGS AND FUNDAMENTALS OF MUSIC. 3.0 Semester Hrs.**

HASS 227 is a beginning orchestral ensemble class. Students will learn to read music, develop fundamental playing skills on one of four instruments available (violin, viola, cello, or bass), grasp basic music theory and history concepts, and understand the communal nature of music through ensemble participation and public performance. Assessment will be based on in-class peer and instructor critique, written exams, daily journal assignments, written, aural, and playing homework assignments, and public performances in class. Prerequisite: HASS100. Co-requisite: HASS200.

**Course Learning Outcomes**

- a. Read music fluently in a limited range b. Develop fundamental applied playing skills on one of four instruments: violin, viola, cello, or bass c. Play with physical freedom and ease in order to avoid long-term pain or injury d. Understand basic music theory concepts related the the act of playing and the structure of notated music e. Recognize, notate, and play back aural patterns f. Be familiar with important historical events and figures for string instruments such as the evolution of the orchestra, formal classical Western music traditions, and a few folk traditions g. Confidently play with accuracy and precision as an individual and also in small and moderately sized groups

**HASS286. GLOBAL POLITICS & SOCIETY. 3.0 Semester Hrs.**

Equivalent with LAIS286,

This is a beginning- level course intended to familiarize students with the study of politics across societies. The method is comparative in that it approaches the task of studying the world's different political systems by contrasting and comparing them along different dimensions, and by seeking generalizations about them. The class focuses on cases, topics, and methodologies in American and comparative politics. The course is part of the Global Politics & Society Minor. 3 hours lecture; 3 semester hours. Prerequisite: HASS100. Co-requisite: HASS200.

**Course Learning Outcomes**

- No change

**HASS298. SPECIAL TOPICS. 1-6 Semester Hr.**

Pilot course or special topics course. Topics chosen from special interests of instructor(s) and student(s). Usually the course is offered only once. Prerequisite: HASS100. Corequisite: HASS200. Variable credit; 1 to 6 credit hours. Repeatable for credit under different titles.

**HASS298. SPECIAL TOPICS. 6.0 Semester Hrs.**

Equivalent with LAIS298B,

Pilot course or special topics course. Topics chosen from special interests of instructor(s) and student(s). Usually the course is offered only once. Prerequisite: HASS100. Corequisite: HASS200. Variable credit; 1 to 6 credit hours. Repeatable for credit under different titles.

**HASS298. SPECIAL TOPICS. 6.0 Semester Hrs.**

Equivalent with LAIS298C,

Pilot course or special topics course. Topics chosen from special interests of instructor(s) and student(s). Usually the course is offered only once. Prerequisite: HASS100. Corequisite: HASS200. Variable credit; 1 to 6 credit hours. Repeatable for credit under different titles.

**HASS299. INDEPENDENT STUDY. 1-6 Semester Hr.**

Individual research or special problem projects supervised by a faculty member, also, when a student and instructor agree on a subject matter, content, and credit hours. Prerequisite: ?Independent Study? form must be completed and submitted to the Registrar. Prerequisite: HASS100. Corequisite: HASS200. Variable credit; 1 to 6 credit hours. Repeatable for credit.

**HASS299. INDEPENDENT STUDY. 1-6 Semester Hr.**

Equivalent with LAIS299B,

Individual research or special problem projects supervised by a faculty member, also, when a student and instructor agree on a subject matter, content, and credit hours. Prerequisite: ?Independent Study? form must be completed and submitted to the Registrar. Prerequisite: HASS100. Corequisite: HASS200. Variable credit; 1 to 6 credit hours. Repeatable for credit.

**HASS299. INDEPENDENT STUDY. 1-6 Semester Hr.**

Equivalent with LAIS299C,

Individual research or special problem projects supervised by a faculty member, also, when a student and instructor agree on a subject matter, content, and credit hours. Prerequisite: ?Independent Study? form must be completed and submitted to the Registrar. Prerequisite: HASS100. Corequisite: HASS200. Variable credit; 1 to 6 credit hours. Repeatable for credit.

**HASS299. INDEPENDENT STUDY. 1-6 Semester Hr.**

Equivalent with LAIS299D,

Individual research or special problem projects supervised by a faculty member, also, when a student and instructor agree on a subject matter, content, and credit hours. Prerequisite: ?Independent Study? form must be completed and submitted to the Registrar. Prerequisite: HASS100. Corequisite: HASS200. Variable credit; 1 to 6 credit hours. Repeatable for credit.

**HASS300. INTERMEDIATE FICTION. 3.0 Semester Hrs.**

Equivalent with LAIS300,

Students will write weekly exercises and read their work for the pleasure and edification of the class. The midterm in this course will be the production of a short story. The final will consist of a completed, revised short story. The best of these works may be printed in a future collection. 3 hours lecture; 3 semester hours. Prerequisite: HASS100. Co-requisite: HASS200.

**HASS301. INTERMEDIATE POETRY WRITING WORKSHOP. 3.0 Semester Hrs.**

Equivalent with LAIS301,

This course focuses on reading and writing poetry and asks students to develop new approaches and skills that will translate into a public art. Students will learn many different poetic forms to compliment prosody, craft, lyric, and technique. Aesthetic preferences will be developed as the class reads, discusses, and models some of the great American poets. Weekly exercises reflect specific poetic craft tools, encourage the writing of literary poetry, and stimulate the development of the student's craft in poetry and compositional ability. The purpose of the course is to experience the literature and its place in a multicultural society, while students "try on" various styles and contexts in order to develop their own voice. Prerequisite: HASS100. Co-requisite: HASS200.

**HASS302. FOUNDATIONS IN CREATIVE WRITING. 3.0 Semester Hrs.**

This mid-level HASS course is a writing workshop for literary short fiction. Students will be asked to write two new pieces of short fiction while they are introduced to the major patterns of modern and contemporary masters of the story form, and students will be expected to show progress in their own approach to creative writing and creative cognition and revision. Students will peer-review and critique new works (and have their own work peer reviewed), using their new knowledge gained from discussion topics such as: contemporary literature versus genre fiction inquiries, new organizational approaches to fiction, plot, character, setting, and all the many aspects of craft in professional creative writing. Students will also examine the short story form from inception to contemporary approaches, focusing on clear and chronological narratives. Analysis of historical trends and change will also serve as a basis for developing student writing habits and strategies. Over the course of the semester, these subjects will be addressed through seminars discussion, readings, workshops, and in-class discussion and activities. the production of a short story. Prerequisite: HASS100, HASS200. Co-requisite: HASS303 or instructor approval.

**Course Learning Outcomes**

- Possess a growing understanding of the development, and craft approaches, for narrative theory and their own fiction writing. • Expand skills in revision and editing. • Discuss the ways in which major movements have impacted the development of the short fiction

form from Chekhov to contemporary masters. • Be able to think critically about contemporary short fiction and be able to analyze and review peer writing from this new perspective. • Understand and mimic organizational theory and principles of short fiction and be ready to apply those strategies in written communication in their professional roles. • Possess increased skills in academic research, creative inquiry, and analytical thought, developed in their own writing and in-class discussions. • Communicate effectively and efficiently in groups and in front of large audiences. • Apply these discovered writing and creative approaches to a number of different sub-genres and prepare a portfolio of revised work that demonstrates growth and ability.

**HASS303. FOUNDATIONS: THE ART AND CRAFT OF THE CREATIVE WRITING WORKSHOP. 3.0 Semester Hrs.**

This course examines the major patterns of modern and contemporary written forms. Topics analyzed include poetics, prose and creative nonfiction, and the personal or lyric essay. Poetics will focus on writing from imagism to modernism to beat and hippy writing, up to contemporary and postmodern poetry. Prose writing will examine the development of the shorts story from inception to contemporary approaches. Analysis of historical trends and change will also serve as a basis for developing student writing habits and strategies. Over the course of the semester, these subjects will be addressed through seminars, readings, workshops focused on new student writing, and in-class discussion and activities. Prerequisite: HASS100. Co-requisite: HASS200.

**Course Learning Outcomes**

**HASS305. AMERICAN LITERATURE: COLONIAL PERIOD TO THE PRESENT. 3.0 Semester Hrs.**

Equivalent with LAIS305,

This course offers an overview of American literature from the colonial period to the present. The texts of the class provide a context for examining the traditions that shape the American nation as a physical, cultural and historical space. As we read, we will focus on the relationships between community, landscape, history, and language in the American imagination. We will concentrate specifically on conceptions of the nation and national identity in relation to race, gender, and class difference. Authors may include: Rowlandson, Brown, Apess, Hawthorne, Douglass, Melville, Whitman, James, Stein, Eliot, Hemingway, Silko, and Auster. Prerequisite: HASS100. Corequisite: HASS200. 3 hours lecture; 3 semester hours.

**HASS307. EXPLORATIONS IN COMPARATIVE LITERATURE. 3.0 Semester Hrs.**

Equivalent with LAIS307,

This course examines major figures and themes in the modern literatures of Africa, the Caribbean, and Latin America. Reading, discussion and writing will focus on fiction and poetry representing Francophone, Arabic, and Hispanophone traditions within these world regions. Engaging these texts will foster understanding of some of the pivotal philosophical, political, and aesthetic debates that have informed cultural practices in diverse colonial territories and nation-states. Thematic and stylistic concerns will include imperialism, nationalism, existentialism, Orientalism, negritude, and social and magical realisms. Prerequisite: HASS100. Corequisite: HASS200. 3 hours lecture; 3 semester hours.

**HASS309. LITERATURE AND SOCIETY. 3.0 Semester Hrs.**

Equivalent with LAIS309,

Before the emergence of sociology as a distinct field of study, literary artists had long been investigating the seemingly infinite complexity of human societies, seeking to comprehend the forces shaping collective identities, socio-cultural transformations, technological innovations, and



political conflicts. Designed to enrich recognition and understanding of the complex interplay of artistic creativity and social inquiry over time, this course compares influential literary and social-scientific responses to the Enlightenment, the Industrial Revolution, and other dynamic junctures integral to the forging of "modernity" and the volatile world we inhabit today. Prerequisite: HASS100. Corequisite: HASS200. 3 hours lecture; 3 semester hours.

**HASS314. INTRODUCTION TO THEATRICAL IMPROVISATION. 3.0 Semester Hrs.**

This course is designed to advance students' comic, improvisational and ensemble acting skills as well as offering instruction in solo and group comedic material developed from improvisation. The course will culminate in a public performance of the material generated in class. Prerequisite: HASS100, HASS200.

**Course Learning Outcomes**

- Upon successful completion of this course, a student will be able to:

**HASS315. MUSICAL TRADITIONS OF THE WESTERN WORLD. 3.0 Semester Hrs.**

Equivalent with LAIS315,

An introduction to music of the Western world from its beginnings to the present. Prerequisite: HASS100. Corequisite: HASS200. 3 hours lecture; 3 semester hours.

**HASS316. JAZZ AND AMERICAN POPULAR MUSIC. 3.0 Semester Hrs.**

This upper-level HASS course explores the American musical style called Jazz, as well as examining the evolution and development of popular music in America. The shared history, background, differences and similarities of these artistic areas will be examined for a deeper understanding of the impact they had in the modern world. Topics analyzed include: regional influences, evolution in thematic material, technological development, important artistic contributions, political and societal factors, and music as a product vs an art form. Analysis of historical trends and change will also serve as a framework for student opinions. Over the course of the semester, these subjects will be addressed through lectures, seminars, readings, and in-class discussion and activities. Students will develop their own analytical skills, which will be demonstrated in written opinion responses, in-class discussions, and musical analysis projects. Prerequisite: HASS100. Corequisite: HASS200. 3 hours lecture; 3 semester hours.

**Course Learning Outcomes**

- 1. Understand techniques and vocabulary common in the musical world. 2. Understand, analyze, and explain song form, rhyme structure, and genre idiosyncrasies in jazz and popular musical styles (i.e. Bebop, Swing, Funk, Southern Rock, etc.). 3. Demonstrate proficiency in recognizing key elements in contemporary music. 4. Explain the impact of political, societal, and cultural change and evolution on contemporary musical styles. 5. Think critically about the subjective vs. objective qualities of current musical performances, styles, trends, and products. 6. Demonstrate an understanding of the impact of technological change in the music industry. 7. Actively listen and analyze music of multiple styles, recognizing the traditions, historical practices, and possible future trends of those styles.

**HASS317. ACTING, LOCUTION & PUBLIC PERFORMANCE. 3.0 Semester Hrs.**

This upper-level HASS course focuses on locution, public speaking and acting through realism. Students will gain the confidence and exposure to present to a large audience. Improvisation, Character Work, Presentation, Monologue and Scene Work are the focus of this class.

**Course Learning Outcomes**

- Through individual and group exercises, improvisations, monologues and scene studies, this class, eclectic in method, helps students develop their acting potential and sharpen their skills in interpreting scripts. Previous theatre study is not required.

**HASS318. THEATER TECHNOLOGY, PRODUCTION & PERFORMANCE. 3.0 Semester Hrs.**

This course is intended to give students a well-rounded and developed foundation in theatrical scenery, props, lighting, sound, and costuming, which will then be transferred into a final performance, showcasing the pathway of engineering technology into performance.

**Course Learning Outcomes**

- 1. Upon completion of the course, the student should understand Theatre Production basics coupled with an Engineering concept as a base. The student will receive a foundation of the stage and its equipment, theatre safety issues, tools and materials used and an idea of the design process. 2. With a focus of design, group planning and group work, the student will acquire the skills to perform basic construction for scenery and props and the knowledge to assist with implementing lighting and sound designs. 3. Historical traditions and practices of theatre will also be included throughout the course of the semester.

**HASS319. INTRODUCTION TO VOICE, MOVEMENT AND IMPROVISATION IN PERFORMANCE AND PRESENTATION. 3.0 Semester Hrs.**

The class will cover techniques drawn from a wide variety of voice and movement philosophies including Linklater, Suzuki, Grotowski, Alexander, yoga, and others.

**Course Learning Outcomes**

- 1. This class will introduce students to a range of vocal and physical techniques for creative expression in performance. 2. Through a series of exercises, trainings, and performances, students will have the opportunity to reduce habitual tensions, connect their movement and voice to imagery and text, and increase the strength, flexibility, and dynamic of their voices and bodies in performance.

**HASS320. ETHICS. 3.0 Semester Hrs.**

Equivalent with LAIS320,

A general introduction to ethics that explores its analytic and historical traditions. Reference will commonly be made to one or more significant texts by such moral philosophers as Plato, Aristotle, Augustine, Thomas Aquinas, Kant, John Stuart Mill, and others. Prerequisite: HASS100. Corequisite: HASS200. 3 hours lecture; 3 semester hours.

**HASS323. INTRODUCTION TO SCIENCE COMMUNICATION. 3.0 Semester Hrs.**

Equivalent with LAIS323,

This course will explore the relationship between science and the public through an examination of science writing and communication on current events. Students will study various forms of science communication, including essays, blogs, news segments, media clips, and radio programs in order to understand the ways in which science is communicated beyond the lab or university and into the public consciousness. Science writing often explores the human condition, reflects on hopes and worries about technology, and informs our collective knowledge about the world. Students will discuss the implications of this kind of communication, analyze breakdowns in communication through case studies, and write for peer and popular audiences, including turning a lab report into a



short feature article and writing a science essay. Prerequisite: HASS100. Corequisite HASS200. 3 hours lecture; 3 semester hours.

**HASS324. AUDIO/ACOUSTICAL ENGINEERING AND SCIENCE. 3.0 Semester Hrs.**

Equivalent with LAIS324,  
Audio/acoustical engineering and science teaches concepts surrounding the production, transmission, manipulation and reception of audible sound. These factors play a role in many diverse areas such as the design of modern music technology products, recording studios and loudspeakers, civil engineering and building design, and industrial safety. This course will explore and concepts of this field and the physics/mechanics that are involved, as well as aesthetic impacts related to the subject matter. Discussion of human anatomy and psycho acoustic phenomena are also presented. 3 hours lecture; 3 semester hours. Prerequisite: HASS100. Co-requisite: HASS200.

**HASS326. MUSIC THEORY. 3.0 Semester Hrs.**

Equivalent with LAIS326,  
The course begins with the fundamentals of music theory and moves into more complex applications. Music of the common practice period (18th century) and beyond is considered. Aural and visual recognition of harmonic material is emphasized. 3 hours lecture; 3 semester hours. Prerequisite: HASS100. Co-requisite: HASS200.

**HASS327. MUSIC TECHNOLOGY. 3.0 Semester Hrs.**

Equivalent with LAIS327,  
An introduction to the physics of music and sound. The history of music technology from wax tubes to synthesizers. Construction of instruments and studio. 3 hours lecture; 3 semester hours. Prerequisite: HASS100. Co-requisite: HASS200.

**HASS328. BASIC MUSIC COMPOSITION AND ARRANGING. 1.0 Semester Hr.**

Equivalent with LAIS328,  
This course begins with the fundamentals of music composition and works towards basic vocal and instrumental arrangement skills. Upon completion of this course the student should: 1) Demonstrate basic knowledge of (music) compositional techniques; 2) Demonstrate primary concepts of vocal and instrumental ensemble arrangement; 3) Demonstrate an ability to use notational software and Midi station hardware. Repeatable for credit. 1 hour lecture; 1 semester hour. Prerequisite: HASS100. Co-requisite: HASS200.

**HASS329. REEVALUATION OF DESIGN AND SUSTAINABLE FUTURE OF MUSICAL INSTRUMENT. 3.0 Semester Hrs.**

History of musical instruments will be surveyed with the particular emphasis on their evolution of designs, materials, and engineering. Musical instrument of choice will be built by each small group of students reflecting their own solution to current design issues identified through their research. Special consideration will be given to sustainable materials, including finishes, and new engineering ideas. Prerequisite: HASS 100. Co-requisite: HASS 200.

**Course Learning Outcomes**

- Students should

**HASS330. MUSIC TECHNOLOGY CAPSTONE. 3.0 Semester Hrs.**

Equivalent with LAIS330,  
Project-based course designed to develop practical technological and communication skills for direct application to the music recording. 3 hours lecture; 3 semester hours. Prerequisite: EDNS191 or HASS100 or LAIS100 or HNRS105, HNRS115 or CSM191, CSM192, HASS327. Co-requisite: EDNS29, HASS200, LAIS200, HNRS315, SYGN200.

**HASS339. MIDDLE EAST: POLITICS & SOCIETY. 3.0 Semester Hrs.**

Equivalent with LAIS339,  
(WI) A broad survey of the interrelationships between the state and market in the Middle East as seen through an examination of critical contemporary and historical issues that shape polity, economy, and society. Special emphasis will be given to the dynamics between the developed North and the developing South. 3 hours lecture; 3 semester hours. Prerequisite: HASS100. Co-requisite: HASS200.

**Course Learning Outcomes**

- no change

**HASS344. INTERNATIONAL RELATIONS. 3.0 Semester Hrs.**

Equivalent with LAIS344,  
This course surveys major topics and theories of international relations. Students will evaluate diverse perspectives and examine a variety of topics including war and peace, economic globalization, human rights and international law, international environmental issues, and the role of the US as the current superpower. Prerequisite: HASS100. Corequisite: HASS200. 3 hours lecture; 3 semester hours.

**HASS360. RESEARCH, VALUES, AND COMMUNICATION. 3.0 Semester Hrs.**

This 3-credit class, which is one of the HASS electives, helps students prepare to be effective in research in science or engineering, for communicating research to an intended audience, and for developing ethical standards that are grounded in personal values. The class covers elements of doing research, such as choosing a research topic, generating research questions, making a work plan, dealing with the ambiguity and hurdles of research, research ethics, broader social and ethical impacts of research, as well as publishing scientific papers, scientific writing, giving oral communications, and writing research proposals. Students acquire hands-on experience by choosing a research project, performing a literature search, develop critical thinking, making a work plan, writing a proposal, and presenting that proposal. The proposal can be the upbeat to a senior design project.

**Course Learning Outcomes**

- 1. Describe the challenges and opportunities in carrying out research, creating SMART goals, ethical conduct of research, and identifying strategies for optimizing the research experience.
- 2. Communicate proposed research professionally by writing an introduction, a plan for execution of the research, the broader social and ethical impacts of the research, and a bibliography for a research proposal to a potential sponsor.
- 3. Generate research questions with at least 4 techniques and use the questions to construct a workplan using creativity-enhancing software for a research project.
- 4. Demonstrate how to communicate effectively with oral presentations, written work, and posters/slide design, while adapting to the appropriate tone and detail for the intended audience.
- 5. Clarify personal values and explain how these values affect everyday life, professional practice, and the choice of future career goals.
- 6. Apply practical ethics tool(s) (e.g., professional ethical codes, three ethical theories, Davis's Seven Step Guide) and personal values to analyze professional ethics cases.

**HASS365. HISTORY OF WAR. 3.0 Semester Hrs.**

Equivalent with LAIS365,  
History of War looks at war primarily as a significant human activity in the history of the Western World since the times of Greece and Rome

to the present. The causes, strategies, results, and costs of various wars will be covered, with considerable focus on important military and political leaders as well as on noted historians and theoreticians. The course is primarily a lecture course with possible group and individual presentations as class size permits. Tests will be both objective and essay types. Prerequisite: HASS100. Corequisite: HASS200. 3 hours lecture; 3 semester hours.

**HASS366. DIVIDED STATES OF AMERICA. 3.0 Semester Hrs.**

This course explores the historical underpinnings of contested developments in recent U.S. history. Students will learn about various social movements, economic changes, and political developments that have created fractures in contemporary American society. Through readings, writings, and discussions, students will develop analytical tools for identifying and assessing differing economic, political, environmental, and social contexts within the United States. The course further emphasizes the application of critical skills for assessing conflicting evidence and interpretations. Topics include economic growth and change, government power and policy, social movements across the political spectrum, wars and international relations, political parties and movements, and racial, class, gender, regional, and religious influences on American life. Prerequisite: HASS100. Co-requisite: HASS200 (although HASS200 can also be taken as a pre-requisite).

**Course Learning Outcomes**

- 1. Recall major political, social, and cultural events in the history of the United States from 1890s to the present, including the major divisions and conflicts that have shaped our contemporary environment -- THUS developing student understanding of the societal context in which they work and live and enhancing their knowledge of contemporary issues.
- 2. Analyze major paradigms for interpreting U.S. history, including structure vs. contingency, economic vs. political, continuity vs. aberration, social vs. political, realism vs. idealism - THUS developing student capacity to analyze societal happenings past and present
- 3. Identify and articulate ways in which historical and contemporary experience differs according to race, class, gender, geographic, and religious identities – THUS developing student empathy and knowledge of divergent community experiences, traditions, and needs
- 4. Summarize accurately, and evaluate critically, competing historical arguments and evidence -- THUS developing student ability to read critically and assess complex and contradictory data
- 5. Construct and communicate persuasive evidence-based historical arguments that assess, critique, and synthesize the interpretations and evidence of two major and contrasting interpretations of U.S. history -- THUS developing student higher-level analytical skills and comprehension of American life
- 6. Apply claim, data, justification model to communication of original argument at paragraph & essays levels -- THUS developing the capacity to organize logically information & arguments
- 7. Cite varying forms of primary & secondary evidence using discipline-specific style -- THUS developing the ability to research & apply conventions from other disciplines and professional contexts
- 8. Create visual and audio-visual representations of historical arguments and developments – THUS developing student capacity to apply knowledge in multiple communication contexts

**HASS370. HISTORY OF SCIENCE. 3.0 Semester Hrs.**

Equivalent with LAIS370,

An introduction to the social history of science, exploring significant people, theories, and social practices in science, with special attention to the histories of physics, chemistry, earth sciences, ecology, and biology. Prerequisite: HASS100. Corequisite HASS200. 3 hours lecture; 3 semester hours.

**HASS372. HISTORY OF MEDICINE. 3.0 Semester Hrs.**

This class explores the history of western medicine from antiquity to modernity, examining both how western ideas about the causes and cures of human ailments have changed overtime, how culture and society informed these ideas, and how disease has shaped human history. In addition to this, topics to be covered include how the medical profession and identity of medical professionals evolved overtime, the histories of psychiatry, hospitals, surgery, public health, and tropical medicine, and how medicine intersects with power and discrimination.

**Course Learning Outcomes**

- 1) Understand the history of medicine from antiquity to the late twentieth century 2) Understand how culture informs medicine and medicine informs culture 3) Understand how disease has shaped human history, including social and economic structures, religion and culture, and relationship between citizens and the state. 4) Analyze primary sources, and use them to construct historical arguments 5) Conduct historical research using primary and secondary sources and write a research essay that adheres to the disciplinary conventions of history. 6) Craft and deliver strong oral presentations

**HASS376. COMMUNITY ENGAGEMENT THROUGH SERVICE LEARNING. 3.0 Semester Hrs.**

Equivalent with LAIS376,

Community Engagement through Service Learning combines a traditional classroom environment with an off campus learning experience with a local non-profit or community organization. Students spend 3-4 hours per week serving the organization they choose and meet in class once per week to discuss reading assignments, present research findings, and share experiences and insights about the course material. Instructors may choose to focus on a particular topic or social issue, such as poverty and privilege, or may engage with community issues more broadly. The course focuses on several aspects of a student's learning, including intra- and interpersonal learning, discovering community, and developing communication skills and critical and interdisciplinary approaches. Course work will focus on critical reading, group discussion and deliberation, oral presentations of research, and writing assignments. 2 hours lecture; 3 hours lab; 3 semester hours. Prerequisite: HASS100. Co-requisite: HASS200.

**HASS398. SPECIAL TOPICS. 1-6 Semester Hr.**

Pilot course or special topics course. Topics chosen from special interests of instructor(s) and student(s). Usually the course is offered only once. Prerequisite: HASS100. Corequisite: HASS200. Variable credit; 1 to 6 credit hours. Repeatable for credit under different titles.

**HASS398. SPECIAL TOPICS. 1-6 Semester Hr.**

Equivalent with LAIS398B,

Pilot course or special topics course. Topics chosen from special interests of instructor(s) and student(s). Usually the course is offered only once. Prerequisite: HASS100. Corequisite: HASS200. Variable credit; 1 to 6 credit hours. Repeatable for credit under different titles.

**HASS398. SPECIAL TOPICS. 1-6 Semester Hr.**

Equivalent with LAIS398C,

Pilot course or special topics course. Topics chosen from special interests of instructor(s) and student(s). Usually the course is offered only once. Prerequisite: HASS100. Corequisite: HASS200. Variable credit; 1 to 6 credit hours. Repeatable for credit under different titles.

**HASS398. SPECIAL TOPICS. 1-6 Semester Hr.**

Equivalent with LAIS398D,

Pilot course or special topics course. Topics chosen from special interests of instructor(s) and student(s). Usually the course is offered only once. Prerequisite: HASS100. Corequisite: HASS200. Variable credit; 1 to 6 credit hours. Repeatable for credit under different titles.

**HASS399. INDEPENDENT STUDY. 1-6 Semester Hr.**

Individual research or special problem projects supervised by a faculty member, also, when a student and instructor agree on a subject matter, content, and credit hours. Prerequisite: ?Independent Study? form must be completed and submitted to the Registrar. Prerequisite: HASS100. Corequisite: HASS200. Variable credit; 1 to 6 credit hours. Repeatable for credit.

**HASS399. INDEPENDENT STUDY. 1-6 Semester Hr.**

Equivalent with LAIS399B,

Individual research or special problem projects supervised by a faculty member, also, when a student and instructor agree on a subject matter, content, and credit hours. Prerequisite: ?Independent Study? form must be completed and submitted to the Registrar. Prerequisite: HASS100. Corequisite: HASS200. Variable credit; 1 to 6 credit hours. Repeatable for credit.

**HASS399. INDEPENDENT STUDY. 1-6 Semester Hr.**

Equivalent with LAIS399C,

Individual research or special problem projects supervised by a faculty member, also, when a student and instructor agree on a subject matter, content, and credit hours. Prerequisite: ?Independent Study? form must be completed and submitted to the Registrar. Prerequisite: HASS100. Corequisite: HASS200. Variable credit; 1 to 6 credit hours. Repeatable for credit.

**HASS399. INDEPENDENT STUDY. 1-6 Semester Hr.**

Equivalent with LAIS399D,

Individual research or special problem projects supervised by a faculty member, also, when a student and instructor agree on a subject matter, content, and credit hours. Prerequisite: ?Independent Study? form must be completed and submitted to the Registrar. Prerequisite: HASS100. Corequisite: HASS200. Variable credit; 1 to 6 credit hours. Repeatable for credit.

**HASS399. INDEPENDENT STUDY. 1-6 Semester Hr.**

Equivalent with LAIS399E,

Individual research or special problem projects supervised by a faculty member, also, when a student and instructor agree on a subject matter, content, and credit hours. Prerequisite: ?Independent Study? form must be completed and submitted to the Registrar. Prerequisite: HASS100. Corequisite: HASS200. Variable credit; 1 to 6 credit hours. Repeatable for credit.

**HASS400. ADVANCED SHORT FICTION WRITING WORKSHOP. 3.0 Semester Hrs.**

(WI) This upper-level HASS course examines the major patterns of modern and contemporary written forms of fiction, and asks students to apply what they learn in their own writing. Topics analyzed include: prose and narrative theory, organizational approaches to fiction, plot, character, setting, and all the many aspects of professional creative writing. Critical prose writing by the students will examine the development of the short story from inception to contemporary approaches. Analysis of historical trends and change will also serve as a basis for developing student writing habits and strategies. Over the course of the semester, these subjects will be addressed through seminars, readings, workshops, and in-class discussion and activities. Students will advance their own literary fiction-writing skills, which will be demonstrated in two new short stories

over the course of the semester, and will turn in a final portfolio and critical paper to show their growth. Prerequisite: HASS100. Co-requisite: HASS200, HASS300, HASS302 or instructor consent.

**Course Learning Outcomes**

- After successful completion of this course, students will: # Possess an advanced understanding of the development and craft approaches for narrative theory in order to produce publishable fiction writing. # Expand and master skills in advanced professional revision and editing. # Understand the ways in which major movements have impacted the development of the short fiction form, and critically inquire into how these work in the form. # Think critically and deeply about contemporary short fiction in order to analyze and review peer writing from this new perspective. # Apply organizational theory and principles to short fiction, and apply those strategies in written communication in their professional roles. # Communicate effectively and efficiently in groups and in front of large audiences. # Apply these advanced writing and creative approaches to a number of different sub-genres, and prepare a publishable final chapbook that demonstrates growth and ability.

**HASS401. ADVANCED POETRY WRITING WORKSHOP. 3.0 Semester Hrs.**

Equivalent with LAIS401,

This course is a continuation of HASS 301 for those interested in developing their poetry writing further. It focuses on reading and writing poetry and creating a final project tied to literary reviews or portfolios. Students will learn many different poetic forms to compliment prosody, craft, and technique. Aesthetic preferences will be developed as the class reads, discusses, and models some of the great American poets. Weekly exercises reflect specific poetic tools, encourage the writing of literary poetry, and simulate the development of the student's craft. The purpose of the course is to experience the literature and its place in a multicultural society, while students "try on" various styles and contexts in order to develop their own voice. Prerequisite: HASS100. Co-requisite: HASS200, HASS301 or Instructor Consent.

**HASS404. WOMEN, LITERATURE, AND SOCIETY. 3.0 Semester Hrs.**

Equivalent with LAIS404,

This reading and writing intensive course examines the role that women writers have played in a range of literary traditions. Far from residing in the margins of key national debates, women writers have actively contributed their voices to demands for social, racial, economic, and artistic equality. We will examine the writing produced by women from a diversity of racial, ethnic, and social backgrounds, as we examine the ways in which women writers respond to the various pressures placed on them as artists and activists. Prerequisite: HASS100. Corequisite: HASS200. 3 hours seminar; 3 semester hours.

**HASS406. THE LITERATURE OF WAR AND REMEMBRANCE. 3.0 Semester Hrs.**

Equivalent with LAIS406,

In "The Literature of War and Remembrance," students survey poetry, prose, and film ranging from classical to contemporary war literature. The course considers literary depictions of the individual and society in war and its aftermath. Critical reading and writing skills are demonstrated in creative presentations and analytical essays. Students will investigate war literature and commemorative art inspired by recent world conflicts, and place a contemporary work into the thematic structure of the course. Prerequisite: HASS100. Corequisite: HASS200. 3 hours seminar; 3 semester hours.

**HASS407. SCIENCE IN LITERATURE. 3.0 Semester Hrs.**

Equivalent with LAIS407,



Science fiction often serves as a cautionary tale that deals with the darker side of humanity's desires in order to find a better understanding of who we are and what we hope to become. This class examines scientific and social progress as it is imagined by some of the greatest authors of the genre. We will examine the current events that may have influenced the writing and position our lens to the scientific and technological breakthroughs, as well as the social, cultural, and political state of the world at the time of our readings. This course focuses on classic science fiction from the late 1800's to the present which may include: Jules Verne, H.G. Wells, Sir Arthur Conan Doyle, Jack Williamson, Isaac Asimov, Robert Heinlein, Alfred Bester, Philip Jose Farmer, Marion Zimmer Bradley, Ray Bradbury, Philip K. Dick, William Gibson, Arthur C. Clarke, Ursula K. LeGuin and Mary Doria Russell, among others. Prerequisite: HASS100. Corequisite: HASS200. 3 hours seminar; 3 semester hours.

**HASS408. CREATIVE NONFICTION WRITING: LIFE STORIES. 3.0 Semester Hrs.**

Equivalent with LAIS408,

Using texts by published contemporary authors we will explore the pleasures and challenges of creating and interpreting narratives based on "real life." The class will consider critical theories about the relationship between the self and the stories we tell and the focus of this course will be on the workshop model where students will create new written work that will be presented for written and oral critique. Prerequisite: HASS100. Co-requisite: HASS200.

**HASS410. CRITICAL PERSPECTIVES ON 20TH CENTURY LITERATURE. 3.0 Semester Hrs.**

Equivalent with LAIS410,

This course introduces students to texts and cultural productions of the 20th Century literature. We will examine a diverse collection of materials, including novels and short stories, poems, plays, films, painting, and sculpture. Science, technology, violence, history, identity, language all come under the careful scrutiny of the authors we will discuss in this course, which may include Conrad, Fanon, Achebe, Eliot, Kafka, Barnes, Camus, Borges, and Marquez, among others. We will also screen films that comment upon the fragility of individual identity in the face of modern technology. Prerequisite: HASS100. Corequisite: HASS200. 3 hours seminar; 3 semester hours.

**HASS411. LITERATURES OF THE AFRICAN WORLD. 3.0 Semester Hrs.**

Equivalent with LAIS411,

This course examines wide-ranging writers' depictions of collective transformations and conflicts integral to the making and remaking of African and Afro-diasporic communities worldwide. Fiction, poetry, and essays representing diverse linguistic, aesthetic, and philosophical traditions will constitute the bulk of the reading. Alongside their intrinsic expressive values, these texts illuminate religious and popular cultural practices important to social groups throughout much of sub-Saharan Africa, the Caribbean, Latin America, and the United States. Primary socio-historical themes may include the slave trade, plantation cultures, generational consciousness, ethnicity, gender relations, urbanization, and collective violence. Prerequisite: HASS100. Corequisite: HASS200. 3 hours seminar; 3 semester hours.

**HASS412. LITERATURE AND THE ENVIRONMENT. 3.0 Semester Hrs.**

Equivalent with LAIS412,

This reading and writing intensive course investigates the human connection to the environment in a broad range of literary materials. Discussions focus on the role of place - of landscape as physical, cultural, moral, historical space - and on the relationship between landscape and

community, history, and language in the environmental imagination. Readings include texts that celebrate the natural world, those that indict the careless use of land and resources, and those that predict and depict the consequences of that carelessness. Additionally, we investigate philosophical, legal, and policy frameworks that shape approaches to environmental issues. Prerequisite: HASS100. Corequisite HASS200. 3 hours seminar; 3 semester hours.

**HASS413. ENVIRONMENTAL FILM. 3.0 Semester Hrs.**

This class explores the ways in which films convey competing narratives about the relationship between humans and the environment. Students will learn to analyze and interpret visual culture in order to understand how cinematic narratives have shaped our societal understandings of the so-called "natural" world and our engagement with energy sources. By examining competing stories that embed different messages about what audiences should think, feel, and do in order to balance energy needs against environmental crises, students in the class will be able to answer the following questions: In what ways are terms like "nature" and the "environment" constructed, and how do these constructions substantively change not only environmental imaginaries but the lived experience of global citizens? How have the cultural and historical contexts in which environmental discourses have been produced affected the production and reception of those narratives and the people who perpetuate them? How do representations of the environment and energy on film impact popular opinions and deflect the ways in which we are able to communicate politically on individual, national, and global scales? This class explores the ways in which films convey competing narratives about the relationship between humans and the environment. Prerequisites: HASS100. Corequisites: HASS200.

**Course Learning Outcomes**

- 1. Identify major events, themes, and concepts that have shaped the modern American environmental movement
- 2. Successfully utilize environmental studies methodology.
- 3. Write cogent essays that make strong and logical arguments using primary and secondary sources
- 4. Analyze various scholarly debates about visual culture and the politics of environmental narratives

**HASS415. MASS MEDIA STUDIES. 3.0 Semester Hrs.**

Equivalent with LAIS415,

This introduction to mass media studies is designed to help students become more active interpreters of mass media messages, primarily those that emanate from television, radio, the Internet, sound recordings (music), and motions pictures (film, documentary, etc.). Taking a broad rhetorical and sociological perspective, the course examines a range of mass media topics and issues. Students should complete this course with enhanced rhetorical and sociological understandings of how media shapes individuals, societies, and cultures as well as how those groups shape the media. Prerequisite: HASS100. Corequisite: HASS200. 3 hours seminar; 3 semester hours.

**HASS416. FILM STUDIES. 3.0 Semester Hrs.**

Equivalent with LAIS416,

This course introduces students to the basics of film history, form, and criticism. Students will be exposed to a variety of film forms, including documentary, narrative, and formalist films, and will be encouraged to discuss and write about these forms using critical film language. Students will have an opportunity to work on their own film projects and to conduct research into the relationship between films and their historical, cultural, and ideological origins. Prerequisite: HASS100. Corequisite: HASS200. 3 hours seminar; 3 semester hours.



**HASS417. INDIGENOUS LITERATURE. 3.0 Semester Hrs.**

This course will investigate indigenous literature in formerly colonized countries and ways in which indigenous peoples around the world survive, adapt, and even thrive in contemporary contexts. From the Arctic to the South Pacific, indigenous people possess unique languages, stories, and belief systems and a valuable understanding of sustainability practices. Reading literature by indigenous writers from North and South America, Australia, New Zealand, African and Asian nations, students will delve into identity issues; land dispossession; assimilation; gender and class; social and environmental justice; tribal identity and city life among other themes. Prerequisite: HASS100, HASS200.

**Course Learning Outcomes**

- Read and think critically about course readings and lecture topics focused on indigenous literature.
- Investigate the historical, cultural, social, and political contexts within which indigenous literary works emerge.
- Develop an understanding of the literature and experiences of different indigenous groups, including the relationship between indigenous and settler culture and literature.
- Construct written and oral arguments about course topics that are supported by relevant experts and evidence.
- Develop written work through a process of drafting and revision to produce clear analyses of texts.
- Find and employ relevant research to writing assignments; consistently cite use of sources in-text and in bibliographies.

**HASS418. NARRATING THE NATION. 3.0 Semester Hrs.**

Equivalent with LAIS418,

The novel, nationalism, and the modern nation-state share the same eighteenth and nineteenth-century roots. Relationships between the works of novelists, local nationalisms, and state politics have, however, always been volatile. These tensions have assumed particularly dramatic expressive and political forms in Latin America and postcolonial South Asia and Africa. This course examines the inspirations, stakes, and ramifications of celebrated novelists' explorations of the conflicted and fragmentary character their own and/or neighboring nationstates. Beyond their intrinsic literary values, these texts illuminate distinctive religious, ritual, and popular cultural practices that have shaped collective imaginings of the nation, as well as oscillations in nationalist sentiment across specific regions and historical junctures. Studies in relevant visual media -films, paintings, and telenovelas - will further our comparative inquiry into the relationships between artistic narrative and critical perspectives on "the nation." Alongside the focal literary and visual texts, the course will address major historians' and social theorists' accounts of the origins, spread, and varied careers of nationalist thought and practice across our modern world. Prerequisite: HASS100. Corequisite: HASS200. 3 hours seminar; 3 semester hours.

**HASS419. ENVIRONMENTAL COMMUNICATION. 3.0 Semester Hrs.**

Equivalent with LAIS419,

(WI) This course explores the ways that messages about the environment and environmentalism are communicated in the mass media, fine arts, and popular culture. The course will introduce students to key readings in environmental communication, media studies, and cultural studies in order to understand the many ways in which the images, messages, and politics of environmentalism and the natural world are constructed and contested. Students will critically analyze their roles as science and/or technology communicators in the context of environmental issues and will apply their skills to creating communications projects for diverse audiences. Prerequisite: HASS100. Corequisite: HASS200. 3 hours lecture; 3 semester hours.

**Course Learning Outcomes**

- Identify major events, themes, and concepts, and narratives that have shaped the modern environmental movement and societal understandings of environmentalism
- Analyze environmental debates in both academic discourse and popular culture
- Understand and engage critically with the roles that scientists and engineers play as communicators in environmental debates
- Research and develop professional written products that make strong and logical arguments using primary and secondary sources
- Sharpen oral communication and presentation skills

**HASS421. ENVIRONMENTAL PHILOSOPHY AND POLICY. 3.0 Semester Hrs.**

Equivalent with LAIS421,

A critical examination of environmental ethics and the philosophical theories on which they depend. Topics may include preservation/conservation, animal welfare, deep ecology, the land ethic, eco-feminism, environmental justice, sustainability, or non-western approaches. This class may also include analyses of select, contemporary environmental issues. Prerequisite: HASS100. Corequisite: HASS200. 3 hours seminar; 3 semester hours.

**HASS422. ART AND ENVIRONMENTALISM. 3.0 Semester Hrs.**

This course introduces students to the basics of art history and criticism with a focus on how environmental philosophies manifest in works of art. Students will be exposed to a variety of art forms, including painting, photography, and sculpture, and will be encouraged to discuss and write about these forms using the language of visual analysis. Students will have an opportunity to work on their own art projects and to conduct research into the relationship between art objects and their historical, cultural, and ideological origins. Prerequisite: HASS200.

**Course Learning Outcomes**

1. Identify major events, themes, and concepts that have shaped art history
2. Understand how art has both reflected and helped to shape the relationship between human beings and the "natural world"
3. Analyze and interpret visual culture
4. Identify how art and culture interact
5. Analyze various scholarly debates about visual culture and the politics of narrative
6. Write cogent essays that make strong and logical arguments using primary and secondary sources
7. Understand how art and engineering intersect

**HASS423. ADVANCED SCIENCE COMMUNICATION. 3.0 Semester Hrs.**

Equivalent with LAIS423,

This course will examine historical and contemporary case studies in which science communication (or miscommunication) played key roles in shaping policy outcomes and/or public perceptions. Examples of cases might include the recent controversies over hacked climate science emails, nuclear power plant siting controversies, or discussions of ethics in classic environmental cases, such as the Dioxin pollution case. Students will study, analyze, and write about science communication and policy theories related to scientific uncertainty; the role of the scientist as communicator; and media ethics. Students will also be exposed to a number of strategies for managing their encounters with the media, as well as tools for assessing their communication responsibilities and capacities. Prerequisite: HASS100. Corequisite: HASS200. 3 hours seminar; 3 semester hours.

**HASS425. INTERCULTURAL COMMUNICATION. 3.0 Semester Hrs.**

Equivalent with LAIS425,

The course examines intercultural communication theory and practice. In particular, the course provides students with a window into how intercultural (mis)communication cases arise, evolve, and are resolved. Students investigate communication cases and issues across a broad range of cultural divides, such as national, ethnic, gender, and social class cultures. Some case studies are situated in engineering and applied science contexts. Prerequisite: HASS100. Corequisite: HASS200. 3 hours lecture; 3 semester hours.

**HASS427. RISK COMMUNICATION. 3.0 Semester Hrs.**

How do people perceive risk, as well as make decisions and communicate under conditions of uncertainty and risk? This course explores multiple perspectives on that overarching question. Although risk perception, risk management, and risk communication are three major course components, they are not treated separately but in terms of how they interrelate. Case studies include engineers and applied scientists coping with complex forms of uncertainty and risk, communicating in organizational and public sphere contexts with multiple audiences via the press and directly to the public, stockholders, co-workers, local communities, and more. In addition, students will critically reflect on the social consequences of living with risk in our contemporary moment. Prerequisite: HASS100. Co-requisite: HASS200.

**Course Learning Outcomes**

- a) applying the following dimensions of risk analysis: hazard identification, probability analysis, potential consequences, identifying mitigation strategies, cultivating resiliency, and designing communication.
- b) analyzing contemporary case studies of risk and crisis messaging as they pertain to industrial processes, environmental hazards, and public safety.
- c) taking account of their own personally and culturally derived dispositions towards risk in professional and civic contexts.
- d) utilizing experiential scenarios to illuminate the lived experience of risk perception, protective action, and precautionary discourse.

**HASS429. REAL WORLD RECORDING/RESEARCH. 3.0 Semester Hrs.**

Equivalent with LAIS429,  
(WI) This reading and writing-intensive course explores the acoustical, musical, and technical aspects of recording a variety of live ethnomusicological music genres and/or performances, towards the purpose of learning how to research, document and capture the most accurate and authentic recording. Historical research, non-traditional recording techniques; archival documentation, and editing will all be a part of this course. Prerequisites: HASS100 and HASS315 or HASS327. Corequisite: HASS200. 3 hours lecture; 3 semester hours.

**HASS430. PSYCHOLOGY FOR ENGINEERING. 3.0 Semester Hrs.**

A general introduction to psychology with a focus on how it relates to technology, engineering, and computing. We will explore the general psychological lenses through which human thoughts, feelings, and behavior are studied and understood including behavioral, cognitive, developmental, humanistic, and social perspectives. Students will learn how psychological principles and knowledge can be applied to investigate and solve real-world problems such as how to make technology more inviting, reliable, useful, and safe. Gaining a better understanding of how humans think, feel, and behave can also be useful in our personal lives, thus this course will also focus on supporting students in navigating their own environments and careers by examining meaningful topics such as human learning and development, motivation, stress and health, and personality and society. Prerequisite: HASS 100 (NHV) and HASS 200 (Global Studies) Co-requisite: HASS 200 (Global Studies).

**Course Learning Outcomes**

- • Contextual Appreciation: Understand the history of psychology theory and research and its perpetual interplay in the history and development of other science, engineering, and computing developments

**HASS431. MORAL PSYCHOLOGY, RELIGION, AND AMERICAN SOCIETY. 3.0 Semester Hrs.**

Equivalent with LAIS431,  
(WI) This course introduces intersections of moral psychology, religion in American society. Course begins with an understanding of religion in the United States and how religion has influenced foreign affairs throughout history (national security). Course introduces insights from moral psychology to shed light on the political spectrum in American political life. The course then explores how faith-based organizations make decisions on when and how to enter American political life for social change (intrasecurity). Finally, the course explores the connections between religion and terrorism that have seen some rise in the early 21st century (national security). Prerequisite: HASS100. Corequisite: HASS200. 3 hours lecture; 3 semester hours.

**Course Learning Outcomes**

- • Define and trace the development of religious expression in the United States from its founding to current trends in American society in the 21st century
- • Describe and identify the major historical periods in American foreign relations
- • Articulate major arguments of how moral psychology explains the political differences between liberals and conservatives in the United States since the 1960s
- • Compare and contrast theological perspectives that explain how and when religiously-based organizations directly engage in politics and society to impact social change
- • Classify the major causes of the linkages between religious motivation in terrorist organizations, groups, and individuals
- • Formulate and argue in a major research paper, how religion and/or moral psychology can shed light on United States foreign policy and national security
- • Formulate, in a group presentation on a case study, a counter-terrorism national security memo to the President of the United States

**HASS432. ROBOT ETHICS. 3.0 Semester Hrs.**

This course explores ethical issues arising in robotics and human-robot interaction through philosophical analysis, behavioral and psychological analysis, research ethics education, and the integration of social and ethical concerns in scientific experimentation and algorithm design. Topics include case studies in lethal autonomous weapon systems, autonomous cars, and social robots, as well as higher-level concerns including economics, law, policy, and discrimination. Prerequisite: HASS200.

**Course Learning Outcomes**

- Understand the basic ethical theories, concepts, tools, and frameworks for analyzing the social and ethical ramifications of robotics
- Be able to critically examine the ethical significance of the use of robotics in daily and technical fields including human-robot interaction, medicine, relationship, military, etc.
- Develop a critical attitude toward the role of robotics in shaping human society including human perceptions and behaviors

- Be able to use the theories, concepts, tools, and frameworks learned from this class to critically examine emerging robot ethics issues in the society

**HASS433. SHAKESPEARE AND THE SCIENTIFIC REVOLUTION. 3.0 Semester Hrs.**

Equivalent with LAIS433,

(WI) This course investigates ways in which William Shakespeare, a contemporary of Galileo, reflects in his work scientific theories and discoveries emerging during the Renaissance that transformed long-held world views. Shakespeare presents characters encountering unprecedented challenges interpreting their own relationship to the natural world and the political world, the spiritual world and the New World, the world of arts and the human imagination. Because the Renaissance concept of science is so broad and multi-disciplinary, students will be able to pursue individual interests in their research for this course. Prerequisite: HASS100. Corequisite: HASS200. 3 hours lecture; 3 semester hours.

**HASS435. LATIN AMERICAN DEVELOPMENT. 3.0 Semester Hrs.**

Equivalent with LAIS435,

A seminar designed to explore the political economy of current and recent past development strategies, models, efforts, and issues in Latin America, one of the most dynamic regions of the world today. Development is understood to be a nonlinear, complex set of processes involving political, economic, social, cultural, and environmental factors whose ultimate goal is to improve the quality of life for individuals. The role of both the state and the market in development processes will be examined. Topics to be covered will vary as changing realities dictate but will be drawn from such subjects as inequality of income distribution; the role of education and health care; region-markets; the impact of globalization, institution-building, corporate-community-state interfaces, neoliberalism, privatization, democracy, and public policy formulation as it relates to development goals. Prerequisite: HASS100. Corequisite: HASS200. 3 hours seminar; 3 semester hours.

**HASS437. ASIAN DEVELOPMENT. 3.0 Semester Hrs.**

Equivalent with LAIS437,

This international political economy seminar deals with the historical development of Asia Pacific from agrarian to post-industrial eras; its economic, political, and cultural transformation since World War II, contemporary security issues that both divide and unite the region; and globalization processes that encourage Asia Pacific to forge a single trading bloc. Prerequisite: HASS100. Corequisite: HASS200. 3 hours seminar; 3 semester hours.

**HASS439. MIDDLE EAST DEVELOPMENT. 3.0 Semester Hrs.**

Equivalent with LAIS439,

This international political economy seminar analyzes economic, political and social dynamics that affect the progress and direction of states, markets, and peoples of the region. It examines the development of the Middle East from agrarian to post-industrial societies; economic, political and cultural transformations since World War II; contemporary security issues that both divide and unite the region; and the effects of globalization processes on economies and societies in the Middle East. Prerequisite: HASS100. Corequisite: HASS200. 3 hours seminar; 3 semester hours.

**HASS441. AFRICAN DEVELOPMENT. 3.0 Semester Hrs.**

Equivalent with LAIS441,

This course provides a broad overview of the political economy of Africa. Its goal is to give students an understanding of the possibilities of African development and the impediments that currently block its economic growth. Despite substantial natural resources, mineral reserves, and

human capital, most African countries remain mired in poverty. The struggles that have arisen on the continent have fostered thinking about the curse of natural resources where countries with oil or diamonds are beset with political instability and warfare. Readings give first an introduction to the continent followed by a focus on the specific issues that confront African development today. Prerequisite: HASS100. Corequisite: HASS200. 3 hours seminar; 3 semester hours.

**HASS448. GLOBAL ENVIRONMENTAL ISSUES. 3.0 Semester Hrs.**

Equivalent with LAIS448,

Critical examination of interactions between development and the environment and the human dimensions of global change; social, political, economic, and cultural responses to the management and preservation of natural resources and ecosystems on a global scale. Exploration of the meaning and implications of ?Stewardship of the Earth? and ?Sustainable Development.? Prerequisite: HASS100. Corequisite: HASS200. 3 hours seminar; 3 semester hours.

**HASS450. POLITICAL RISK ASSESSMENT. 3.0 Semester Hrs.**

Equivalent with LAIS450,

This course will review the existing methodologies and techniques of risk assessment in both country-specific and global environments. It will also seek to design better ways of assessing and evaluating risk factors for business and public diplomacy in the increasingly globalized context of economy and politics wherein the role of the state is being challenged and redefined. Prerequisite: HASS100. Corequisite: HASS200. 3 hours seminar; 3 semester hours.

**HASS460. GEOPOLITICS OF NATURAL RESOURCES. 3.0 Semester Hrs.**

Equivalent with LAIS460,

(WI) This seminar examines geopolitical competition between great and aspiring powers for influence, control over land and natural resources, critical geo-strategic trade routes, or even infrastructure. Using empirical evidence from case studies, students develop a deeper understanding of the interconnections between the political, economic, social, cultural and geographic dimensions of foreign policies, as well as issues of war and peace. Prerequisite: HASS100. Corequisite: HASS200. 3 hours seminar; 3 semester hours.

**Course Learning Outcomes**

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**HASS463. HISTORY OF EPIDEMICS. 3.0 Semester Hrs.**

This course explores how epidemics and pandemics have shaped human history, from the Plague of Athens in 430 BCE to the HIV/AIDS crisis. Prerequisite: HASS200.

**Course Learning Outcomes**

- 1. Understand how epidemics have impacted political, social, and cultural history 2. Explain how human actions determine the course of epidemics 3. Explain how structural inequalities contribute to the spread of epidemics 4. Analyze primary sources and use them to construct historical arguments 5. Craft and deliver strong oral presentations 6. Conduct original historical research using primary source databases and secondary sources and write papers based upon this research.

**HASS464. HISTORY OF ENERGY AND THE ENVIRONMENT. 3.0 Semester Hrs.**

Equivalent with LAIS464,

This course examines the major patterns of human energy use and interaction with the natural environment on a global scale from the origins of civilization to the present day. Topics analyzed include the



dynamics of historical change in energy and resource use, the ways in which energy and the environment have shaped the development of past societies, cultural perceptions of energy and the environment during different historical eras, and the impact of past human activities on natural systems. Analysis of historical trends will also serve as a basis for discussions related to current issues in energy and the environment. Prerequisite: HASS100. Corequisite: HASS200. 3 hours lecture; 3 semester hours.

**HASS465. THE GOOD LIFE, FROM ARISTOTLE TO THE ANTHROPOCENE. 3.0 Semester Hrs.**

What makes a life meaningful or good? This is an interdisciplinary course that draws upon philosophy, history, and modern behavioral science, to explore how people have historically answered the question of what it means to live a good life. You will read works by thinkers from the ancient world to modernity in conversation with articles and lectures from psychologists and cognitive scientists, and write a research paper that presents your own answer to this question while critically engaging with different philosophical and historical traditions. Other assignments include a short analytical paper, journaling, four experiments conducted over two weeks each to test some of the theories of happiness we will explore, and an oral presentation on the findings of your research project. Prerequisite: HASS100, HASS200.

**Course Learning Outcomes**

- • Understand, compare, and describe major historical and contemporary theories on how to live a good life, proposed by authors from a variety of cultural backgrounds
- • Write sophisticated essays that combine personal narrative and argument with research and analysis
- • Communicate complex concepts and ideas, orally and in writing, to a variety of audiences
- • Use philosophy and history to examine big questions of enduring concern: What are my requirements for a good life? What things matter the most to me? How can I be happier? How can my life be more meaningful?

**HASS466. SCIENCE, TECHNOLOGY, AND CONFUCIAN ETHICS. 3.0 Semester Hrs.**

This course examines the ethical ideas in classical Confucianism (e.g., Confucius, Mencius) and how these ethical ideas can shape the ways in which scientific and technological problems are defined and solved. Students in this class will be expected to read both classical Confucian texts such as Analects and Mencius and works by contemporary authors that examine the social, ethical, and political issues in scientific and technological domains such as gene editing technology, robotics, social media technology, and engineering through the lens of Confucian ethics. A major goal of this course is to help students challenge some prevalent ideologies in Western ethics such as autonomous individualism (e.g., individuals are understood as merely rights-bearing persons). It also helps students cultivate a cultural sensitivity toward scientific and technological practice in a global context. Our exploration in this class will help students develop their "self-knowledge" that has been extensively missing in current engineering education system. Students are encouraged to think reflectively and critically about why they are engineers, for those benefit they want to work, and the kind of world they want to design and live in by using the powerful technologies they create. Prerequisite: HASS200.

**Course Learning Outcomes**

- understand key ideas and arguments in Confucian ethics
- be able to interpret classical Confucian ethical ideas from the perspectives of contemporary social sciences including anthropology, psychology, and political theory
- be able to compare Confucian ethics with other major schools of thought in Western ethics (e.g., deontology, utilitarianism, social contract theory)
- be able to use theories and tools from Confucian ethics to critique contemporary global, social, and political controversies and scientific and technological advancements
- develop a culturally diverse attitude toward human experience, society, and technological change

**HASS467. HISTORY OF EARTH AND ENVIRONMENTAL SCIENCES. 3.0 Semester Hrs.**

Equivalent with LAIS467,

This course provides an overview of the history of some of the key sciences that help us understand the world we inhabit: geology, climatology, evolutionary biology, and ecology. As we investigate key scientific discoveries of the modern era, we will also consider the philosophical and cultural impacts of those scientific discoveries. Thus, our reading will include not only original texts by scientists, but also key literary, historical and other texts inspired by those discoveries. Prerequisite: HASS100. Corequisite: HASS200. 3 hours lecture; 3 semester hours.

**HASS468. ENVIRONMENTAL JUSTICE. 3.0 Semester Hrs.**

This course explores the history of the environmental justice movement, current and emerging environmental justice issues, and the application of environmental justice concepts and theories to environmental decision-making. Course content and activities are designed to enrich student understanding of how environmental injustice is produced (locally, regionally, and globally), how environmental justice issues are measured and analyzed, and how environmentally just outcomes can be achieved. Prerequisite: HASS100. Co-requisite: HASS200.

**Course Learning Outcomes**

- At the completion of this course, students will be able to: 1) Critically analyze environmental problems, policies, and practices with attention to how and why diverse people/groups are differentially exposed to environmental benefits and burdens. 2) Explain how the concept of environmental justice and social movements oriented around environmental justice have evolved over time. 3) Apply and evaluate concepts, theories, and methods that are central to analyses of environmental justice. 4) Reflect critically your own life and how you shape, and are shaped by, dynamics of environmental justice. 5) Develop an evidence-based and well-reasoned case for what a just outcome of an environmental situation would be. 6) Explore strategies for addressing environmental justice based in different theories of change (e.g., political, economic, ethical, technical). 7) Apply research, writing, oral presentation, and discussion facilitation skills to environmental policy and planning issues.

**HASS469. SCIENCE AND SPIRITUALITY. 3.0 Semester Hrs.**

The education at Mines focuses on the development and application of science and engineering but leaves little space for the big spiritual questions that arise in most of us. In this 3-credit class, we explore the interface of science and spirituality, and we will study questions such as the following. How did our worldview change in history? Is the universe a mindless machine? What does quantum mechanics teach us about this? What is the connection between mind and matter? (Does mind matter? Does matter mind?) Why can humans be devils or saints?



What are the roles of rational thinking and intuition? This eclectic class is a true exploration in the sense that most questions above cannot be tackled as a science or engineering problem; instead, we will dive in deep together. This is a writing-intensive class that can be used as a 400-level HASS elective.

#### Course Learning Outcomes

- 1. Describe at least 5 spiritual practices and, after trying at least 3 of these practices each for at least a week, reflect on the impacts of these practices on the development of the self. 2. Identify and describe at least three different views on the degree to which science explains reality, and the need for (or absence of) a spiritual world view. 3. Create a personal worldview statement on science and spirituality. 4. Conduct a respectful conversation on a controversial topic in scientific practice in a spirit of dialogue, and be able to describe best practices for such conversations. 5. Display a willingness to be vulnerable through sharing of personal experiences and by engaging in class activities of a different nature from regular Mines classes. 6. Demonstrate the ability for non-dualistic thinking—i.e., rise above right/wrong or true/false—in the connection of science, spirituality, and religion; share this non-dualistic thinking through papers and class conversations.

#### HASS483. INTELLECTUAL PROPERTY FOR ENGINEERS AND ARTISTS. 3.0 Semester Hrs.

This course meets weekly, in three-hour blocks. Students will learn about the philosophical and legal concepts that form the foundation for the protection of their unique ideas and expressions. We trace the history of intellectual property, learn how to spot and secure protected intellectual property rights, use practical tools to obtain legal rights by student inventions and expressions, and develop basic business models. Students are expected to come to class prepared, and to engage in discussions and workgroups.

#### Course Learning Outcomes

- a. Identify specific types on intellectual property (e.g. types of patent, trademark, copyright and trade secrets); b. Articulate the different business and legal implications of property right designations; c. Create actionable business strategies to secure intellectual property rights; d. Appreciate and understand how to implement the practical, ethical aspects of respecting intellectual property rights of others; e. Understand how to respect, and avoid conflicts with other owners of intellectual property rights; f. Develop business plan components to utilize intellectual property in business; g. Understand basic documents for aspects of intellectual property protection (e.g. non-disclosure agreement).

#### HASS484. US WATER POLITICS AND POLICY. 3.0 Semester Hrs.

(WI) This interdisciplinary seminar course engages the complexities of contemporary water governance in the United States, with an emphasis on the arid American West, including the state of Colorado. It engages with governance questions such as how we are to share over-allocated water resources, how we are to engage with increasingly unpredictable hydrologic dynamics, and how changes in water science, engineering, and values shape policy and politics and vice versa. The course engages with concepts in ethics, economics, history, law, and policy, and puts them in conversation with dynamics in hydrology, engineering, and social-ecological systems theory. Prerequisite: HASS100. Corequisite: HASS200. 3 hours lecture; 3 semester hours.

#### Course Learning Outcomes

- After successful completion of this course, students will be able to...
  1. Demonstrate an understanding of contemporary water politics

and policy in the arid American West as compared to the rest of the United States. 2. Thoughtfully and effectively participate in critical discussions of the challenges – past, present, and future – facing United States water stakeholders and decision-makers. 3. Articulate an individual water ethic and reflect upon its connections to broader governance structures and processes. 4. Practice interdisciplinary analysis by conducting a watershed assessment that integrates social with hydrologic/ecologic dynamics and articulates grounded policy recommendations. 5. Synthesize ideas from diverse sources and communicate them clearly and compellingly in a variety of career- and policy-relevant formats.

#### HASS485. CONSTITUTIONAL LAW AND POLITICS. 3.0 Semester Hrs.

Equivalent with LAIS485,

This course presents a comprehensive survey of the U.S. Constitution with special attention devoted to the first ten Amendments, also known as the Bill of Rights. Since the Constitution is primarily a legal document, the class will adopt a legal approach to constitutional interpretation. However, as the historical and political context of constitutional interpretation is inseparable from the legal analysis, these areas will also be covered. Significant current developments in constitutional jurisprudence will also be examined. The first part of the course deals with Articles I through III of the Constitution, which specify the division of national governmental power among the executive, legislative, and judicial branches of government. Additionally, the federal nature of the American governmental system, in which governmental authority is apportioned between the national government and the state governments, will be studied. The second part of the course examines the individual rights specifically protected by the amendments to the Constitution, principally the First, Fourth, Fifth, Sixth, Eighth, and Fourteenth Amendments. Prerequisite: HASS100. Corequisite: HASS200. 3 hours seminar; 3 semester hours.

#### HASS486. SCIENCE AND TECHNOLOGY POLICY. 3.0 Semester Hrs.

Equivalent with LAIS486,

An examination of current issues relating to science and technology policy in the United States and, as appropriate, in other countries. Prerequisite: HASS100. Corequisite: HASS200. 3 hours seminar; 3 semester hours.

#### HASS487. ENVIRONMENTAL POLITICS AND POLICY. 3.0 Semester Hrs.

Equivalent with LAIS487,

Seminar on environmental policies and the political and governmental processes that produce them. Group discussion and independent research on specific environmental issues. Primary but not exclusive focus on the U.S. Prerequisite: HASS100. Corequisite: HASS200. 3 hours seminar; 3 semester hours.

#### HASS488. GLOBAL WATER POLITICS AND POLICY. 3.0 Semester Hrs.

Equivalent with LAIS488,

(WI) This interdisciplinary seminar course analyzes how droughts, floods, water management, global trading system, and climate change affect the hydrological and food systems that are critically important for economic prosperity and political stability. It addresses water policy at scales that range from community level to global governance regimes. It uses relevant analytical perspectives of, for example, psychology, political economy, development studies, and institutional approaches in economic geography to help students understand how certain transboundary water conflicts have emerged, their national and regional implications, and policies and institutions that can be used to resolve them. Prerequisite: HASS100. Corequisite: HASS200. 3 hours seminar; 3 semester hours.

**Course Learning Outcomes**

- At the conclusion of the class students will understand:
  - Key issues in water politics and policy in the Middle East
  - The various types of threats to water infrastructure
  - The political economy of the water-food-energy nexus
  - Costs and benefits of farming abroad versus food imports
  - How domestic and international politics can affect water conflict and food security
  - How water policy and management are shaped and re-shaped by different forces and stakeholders
  - Issues pertaining to international watercourses and their effect on economic development and regional security
  - Literature in international water resources planning and development.

**HASS490. ENERGY AND SOCIETY. 3.0 Semester Hrs.**

Equivalent with ENGY490, LAIS490, MNGN490,

An interdisciplinary capstone seminar that explores a spectrum of approaches to the understanding, planning, and implementation of energy production and use, including those typical of diverse private and public (national and international) corporations, organizations, states, and agencies. Aspects of global energy policy that may be considered include the historical, social, cultural, economic, ethical, political, and environmental aspects of energy together with comparative methodologies and assessments of diverse forms of energy development as these affect particular communities and societies. Prerequisite: HASS100. Corequisite: HASS200. 3 hours lecture; 3 semester hours.

**HASS491. ENERGY POLITICS. 3.0 Semester Hrs.**

(WI) We will use political science approaches, theories, and methods to investigate the global, regional, state, and local politics of renewable and non-renewable energy, spanning all uses: transportation, heating and cooling, and electricity. We will look at the politics behind energy in a subset of countries to be chosen by the class, such as China, Brazil, India, Austria, Spain, Venezuela, and Germany. We will then focus on energy in Colorado and other US states, conducting primary research on the stakeholders and the relevant political outcomes. We will hear from energy companies, non-governmental organizations, university and research entities, government representatives, legislators, and local activists. Prerequisite: HASS100. Corequisite: HASS200. 3 hours lecture; 3 semester hours.

**Course Learning Outcomes**

- understand issues surrounding the politics of a variety of energy sources
- create and execute a sophisticated research design focused on political issues related to energy, including writing a literature review and being able to identify and operationalize independent and dependent variables and create causal mechanisms
- use basic social science research methods, such as surveys and interviews
- develop written and oral communication skills

**HASS498. SPECIAL TOPICS. 1-6 Semester Hr.**

Pilot course or special topics course. Topics chosen from special interests of instructor(s) and student(s). Usually the course is offered only once. Prerequisite: HASS100. Corequisite: HASS200. Variable credit; 1 to 6 credit hours. Repeatable for credit under different titles.

**HASS498. SPECIAL TOPICS. 1-6 Semester Hr.**

Equivalent with LAIS498B,

Pilot course or special topics course. Topics chosen from special interests of instructor(s) and student(s). Usually the course is offered only once. Prerequisite: HASS100. Corequisite: HASS200. Variable credit; 1 to 6 credit hours. Repeatable for credit under different titles.

**HASS498. SPECIAL TOPICS. 1-6 Semester Hr.**

Equivalent with LAIS498C,

Pilot course or special topics course. Topics chosen from special interests of instructor(s) and student(s). Usually the course is offered only once. Prerequisite: HASS100. Corequisite: HASS200. Variable credit; 1 to 6 credit hours. Repeatable for credit under different titles.

**HASS498. SPECIAL TOPICS. 1-6 Semester Hr.**

Equivalent with LAIS498D,

Pilot course or special topics course. Topics chosen from special interests of instructor(s) and student(s). Usually the course is offered only once. Prerequisite: HASS100. Corequisite: HASS200. Variable credit; 1 to 6 credit hours. Repeatable for credit under different titles.

**HASS498. SPECIAL TOPICS. 1-6 Semester Hr.**

Equivalent with LAIS498E,

Pilot course or special topics course. Topics chosen from special interests of instructor(s) and student(s). Usually the course is offered only once. Prerequisite: HASS100. Corequisite: HASS200. Variable credit; 1 to 6 credit hours. Repeatable for credit under different titles.

**HASS498. SPECIAL TOPICS. 1-6 Semester Hr.**

Equivalent with LAIS498F,

Pilot course or special topics course. Topics chosen from special interests of instructor(s) and student(s). Usually the course is offered only once. Prerequisite: HASS100. Corequisite: HASS200. Variable credit; 1 to 6 credit hours. Repeatable for credit under different titles.

**HASS498. SPECIAL TOPICS. 1-6 Semester Hr.**

Equivalent with LAIS498G,

Pilot course or special topics course. Topics chosen from special interests of instructor(s) and student(s). Usually the course is offered only once. Prerequisite: HASS100. Corequisite: HASS200. Variable credit; 1 to 6 credit hours. Repeatable for credit under different titles.

**HASS498. SPECIAL TOPICS. 1-6 Semester Hr.**

Equivalent with LAIS498H,

Pilot course or special topics course. Topics chosen from special interests of instructor(s) and student(s). Usually the course is offered only once. Prerequisite: HASS100. Corequisite: HASS200. Variable credit; 1 to 6 credit hours. Repeatable for credit under different titles.

**HASS499. INDEPENDENT STUDY. 1-6 Semester Hr.**

(I, II) Individual research or special problem projects supervised by a faculty member, also, when a student and instructor agree on a subject matter, content, and credit hours. Prerequisite: ?Independent Study? form must be completed and submitted to the Registrar. Variable credit; 1 to 6 credit hours. Repeatable for credit.

**HNRS105. INNOVATION AND DISCOVERY IN ENGINEERING, ARTS, AND SCIENCES I. 3.0 Semester Hrs.**

(I) (WI) "Innovation and Discovery in Engineering, Arts, and Sciences" (IDEAS) applies honors pedagogies in a multidisciplinary, integrated environment that highlights the seamless boundaries between science and engineering, design, ethics, and the arts as a path toward making value-informed technical decisions. In addition to developing foundational skills in engineering design and problem-solving, students examine place, identity, citizenship, and community in various contexts as they learn what it means to be an engaged and mindful citizen and professional. IDEAS poses ethical problems and hands-on design challenges from a multitude of lenses. It incorporates experiential learning, team-based projects, and seminar discussions to encourage students to think both critically and creatively about their world. Students must pass both HNRS105 and HNRS 115 to meet degree requirements. If students drop either of these courses, they must take both HASS100 and EDNS151 or their equivalents in order to graduate.

### Course Learning Outcomes

- Identify design problems that respond to needs of place, identity, citizen, and community.
- Recognize and utilize multiple perspectives in the problem-definition process.
- Analyze self and community through multidisciplinary techniques.
- Evaluate a place using ethical, environmental, societal, and cultural lenses.
- Utilize observational and ethnographic research methods.
- Engage in design charrettes, writing projects, and rapid prototyping activities that demonstrate user empathy, values-sensitive design, creativity, synthesis, and/or reflection.
- Give and receive feedback during peer review and portfolio development.
- Increase ethical sensitivity and add to ethical judgment.
- Visually communicate ideas through hand sketching.
- Use written, oral, and graphic communication as a means to discover and reconsider ideas through a process of drafting, collaborating, revising, and editing.

### HNRS110. LEADERSHIP BY DESIGN I. 3.0 Semester Hrs.

In the first of two semesters of this honors experience, students participate in a multidisciplinary, integrated, collaborative environment that blends leadership, design, communication, innovation, and ethics in order to build the capabilities needed to lead and address grand challenges. Students will experience a combination of experiential learning, projects, seminar discussions, guest speakers, and design sprints as they spend time gaining foundational knowledge, learning how to think in systems, analyzing grand challenges, communicating the story in multiple ways to various audiences, and designing documents, presentations, objects, and exhibitions. Also, students will begin to develop their portfolio to document the story of their time in Leadership by Design. Students must pass both HNRS110 and HNRS120 to meet degree requirements.

#### Course Learning Outcomes

- Develop your Capabilities and Mindsets through these 10 C's, so that you Grow as a leader, communicator, thinker, designer, maker, innovator, and collaborator

### HNRS115. INNOVATION AND DISCOVERY IN ENGINEERING, ARTS, AND SCIENCES II. 4.0 Semester Hrs.

(WI) "Innovation and Discovery in Engineering, Arts, and Sciences" (IDEAS) applies honors pedagogies in a multidisciplinary, integrated environment that highlights the seamless boundaries between science and engineering, design, ethics, and the arts as a path toward making value-informed technical decisions. Students examine place, identity, citizenship, and community in various contexts as they learn what it means to be an engaged and mindful citizen and professional. IDEAS poses ethical problems and hands-on design challenges from a multitude of lenses. It incorporates experiential learning, team-based projects, and seminar discussions to encourage students to think both critically and creatively about their world. Students must pass both HNRS105 and HNRS115 to meet degree requirements. If students drop either of these courses, they must take both HASS100 and EDNS151 or their equivalents in order to graduate. Prerequisite: HNRS105 with a grade of C- or higher.

#### Course Learning Outcomes

- Model and communicate formalized design ideas through the use of standardized engineering graphics conventions and computer-aided design/solid modeling software.
- Apply the professional techniques of leadership and team membership in the context of project management.
- Research and analyze an engineered or natural system through multidisciplinary techniques.
- Analyze and evaluate the needs, values, and perspectives of human and non-human stakeholders.
- Design solutions through an iterative testing, refining, and feedback process based on bibliographic research, analysis of technical requirements, environmental risks, user empathy, and stakeholder engagement.
- Develop written and oral arguments that meet the needs of varying rhetorical situations.
- Recognize the need for engineering solutions that are responsive to a multicultural and globalized world.
- Apply ethical reasoning in support of an engineering design solution.

### HNRS120. LEADERSHIP BY DESIGN II. 3.0 Semester Hrs.

In the second of two semesters of this honors experience, students participate in a multidisciplinary, integrated, collaborative environment that blends leadership, design, communication, innovation, and ethics in order to build the capabilities needed to lead and address grand challenges. Students will experience a combination of experiential learning, projects, seminar discussions, professional development workshops, guest speakers, and design sprints. Students build on the first semester as they build leadership skills and work to be better designers, creators, thinkers, innovators, and communicators. They will address the questions "What is good design?" "What is good leadership?" "What is innovation?" and "How do I best tell the story?" Students design documents, presentations, and objects. They investigate ways to create impact and value as they define problems, pose solutions for grand challenges, and create a portfolio to document their experience to best tell the story of their time in Leadership by Design. Students must pass both HNRS110 and HNRS120 to meet degree requirements. Prerequisite: HNRS110 with a grade of C- or better.

#### Course Learning Outcomes

- Develop your Capabilities and Mindsets through these 10 C's, so that you Grow as a leader, communicator, thinker, designer, maker, innovator, and collaborator

### HNRS150. ENTERING RESEARCH. 1.0 Semester Hr.

In this course, students will be introduced to various skills needed to be successful when conducting research. These skills include best practices to finding a research mentor, the roles and responsibilities of a researcher, developing relationships that make for a successful research experience, how to critically read and analyze scientific literature, lab safety, and disseminating research work.

#### Course Learning Outcomes

- Student Learning Outcomes

### HNRS198. SPECIAL TOPICS. 6.0 Semester Hrs.

A Special Topics course will be a pilot course in the UHSP curriculum or will be offered as an enhancement to regularly-scheduled UHSP seminars. Special Topics courses in the UHSP curriculum will not be offered more than twice. Variable credit: 1 - 6 semester hours. Repeatable for credit under different titles.



**HNRS199. INDEPENDENT STUDY. 1-6 Semester Hr.**

Under special circumstances, a UHSP student may use this course number to register for an independent study project which substitutes for or enhances the regularly-scheduled UHSP curriculum seminars. Variable credit: 1 - 6 semester hours. Repeatable for credit.

**HNRS298. SPECIAL TOPICS. 1-6 Semester Hr.**

A Special Topics course will be a pilot course in the UHSP curriculum or will be offered as an enhancement to regularly-scheduled UHSP seminars. Special Topics courses in the UHSP curriculum will not be offered more than twice. Variable credit: 1 - 6 semester hours. Repeatable for credit under different titles.

**HNRS299. INDEPENDENT STUDY. 1-6 Semester Hr.**

Under special circumstances, a UHSP student may use this course number to register for an independent study project which substitutes for or enhances the regularly-scheduled UHSP curriculum seminars. Variable credit: 1 - 6 semester hours. Repeatable for credit.

**HNRS305. EXPLORATIONS IN MODERN AMERICA. 3.0 Semester Hrs.**

(WI) Honors core course that develops student skills in reading, writing, critical thinking, and oral communication. skills through the exploration of selected topics related to the social, cultural, and political ideas and events that have shaped the development of the modern United States and its role in the world. 3 lecture hours, 3 credit hours. Prerequisite: HASS100 or HNRS105, HNRS115 or HNRS110, HNRS120 or HNRS198A.

**HNRS315. EXPLORATIONS IN THE MODERN WORLD. 3.0 Semester Hrs.**

(WI) Honors core course that develops student writing skills and critical thinking abilities through the exploration of selected topics related to the social, cultural, and political ideas and developments that have shaped the modern world. 3 lecture hours, 3 credit hours. Prerequisite: HASS100 or HNRS105, HNRS115 or HNRS110, HNRS120 or HNRS198A.

**HNRS398. SPECIAL TOPICS IN THE UNIVERSITY HONORS AND SCHOLARS PROGRAM. 1-6 Semester Hr.**

A Special Topics course will be a pilot course in the University Honors & Scholars Programs curriculum or will be offered as an enhancement to regularly-scheduled UHSP seminars. Special Topics courses in the UHSP curriculum will not be offered more than twice.

**HNRS399. INDEPENDENT STUDY. 1-6 Semester Hr.**

Under special circumstances, a UHSP student may use this course number to register for an independent study project which substitutes for or enhances the regularly-scheduled UHSP curriculum seminars. Variable credit: 1 - 6 semester hours. Repeatable for credit.

**HNRS405. MCBRIDE PRACTICUM. 1-3 Semester Hr.**

(I, II) (WI) With approval of the Program, a McBride student may enroll in an individualized study project which substitutes for or enhances the regularly-scheduled McBride curriculum seminars. This option may be used to pursue an approved foreign study program, service learning program, international internship, undergraduate research project, or other authorized experiential learning program of study. Students must also prepare a faculty-guided major research paper that integrates the experience with the goals, objectives, and focus of the Honors Program in Public Affairs. 1-3 semester hours. Repeatable up to 6 hours.

**HNRS425. EXPLORATIONS IN POLITICS, POLICY, AND LEADERSHIP. 3.0 Semester Hrs.**

(WI) Study of selected topics related to policy, politics, and/or leadership through case studies, readings, research, and writing. Prerequisites: HNRS305: Explorations in Modern America and HNRS315: Explorations

in The Modern World. Repeatable for credit up to a maximum of 6 hours. 3 lecture hours, 3 credit hours.

**HNRS430. EXPLORATIONS IN IDEAS, ETHICS, AND RELIGION. 3.0 Semester Hrs.**

(WI) Study of selected topics related to ideas, ethics, and/or religion through case studies, readings, research, and writing. Prerequisites: HNRS305: Explorations in Modern America and HNRS315: Explorations in the Modern World. Repeatable for credit up to a maximum of 6 hours. 3 lecture hours, 3 credit hours.

**HNRS435. EXPLORATIONS IN CULTURE, SOCIETY, AND CREATIVE ARTS. 3.0 Semester Hrs.**

(WI) Study of selected topics related to culture, society, and/or the creative arts through case studies, readings, research, and writing. Prerequisites: HNRS305: Explorations in Modern America and HNRS315: Explorations in the Modern World. Repeatable for credit up to a maximum of 6 hours. 3 lecture hours, 3 credit hours.

**HNRS440. EXPLORATIONS IN INTERNATIONAL STUDIES & GLOBAL AFFAIRS. 3.0 Semester Hrs.**

(WI) Study of selected topics related to international studies and/or global affairs through case studies, readings, research, and writing. Prerequisites: HNRS305: Explorations in Modern America and HNRS315: Explorations in the Modern World. Repeatable for credit up to a maximum of 6 hours. 3 lecture hours, 3 credit hours.

**HNRS445. EXPLORATIONS IN SCIENCE, TECHNOLOGY, AND SOCIETY. 3.0 Semester Hrs.**

(WI) Study of selected topics related to the relationships between science, technology, and society through case studies, readings, research, and writing. Prerequisites: HNRS305: Explorations in Modern America and HNRS315: Explorations in the Modern World. Repeatable for credit up to a maximum of 6 hours. 3 lecture hours, 3 credit hours.

**HNRS450. EXPLORATIONS IN EARTH, ENERGY, AND ENVIRONMENT. 3.0 Semester Hrs.**

(WI) Study of selected topics related to earth, energy, and/or the environment through case studies, readings, research, and writing. This course may focus on the human dimensions or broader impacts of science, technology, engineering, or mathematics. Prerequisites: HNRS305: Explorations in Modern America and HNRS315: Explorations in the Modern World. Repeatable for credit up to a maximum of 6 hours. 3 lecture hours, 3 credit hours.

**HNRS476. COMMUNITY ENGAGEMENT THROUGH SERVICE LEARNING. 3.0 Semester Hrs.**

(II) Community Engagement through Service Learning combines a traditional classroom environment with an off campus learning experience with a local non-profit or community organization. Students spend 3-4 hours per week serving the organization they choose and meet in class once per week to discuss reading assignments, present research findings, and share experiences and insights about the course material. Instructors may choose to focus on a particular topic or social issue, such as poverty and privilege, or may engage with community issues more broadly. The course focuses on several aspects of a student's learning, including intra- and interpersonal learning, discovering community, and developing communication skills and critical and interdisciplinary approaches. Course work will focus on critical reading, group discussion and deliberation, oral presentations of research, and writing assignments. Prerequisites: none. 2 hours lecture; 3-4 hours lab; 3.0 semester hours.

**HNRS496. PAYNE SCHOLARS PROGRAM. 1.0 Semester Hr.**

Mines graduates often go on to become corporate leaders and are responsible for many of the innovations and changes seen across industries. In much the same way, the research done at Mines has



far reaching implications for many of the social, economic, and environmental challenges faced around the world. To develop these relationships, and to prepare students for future roles, the Payne Institute partnered with students to develop a public policy community that uses all the School of Mines' resources to be both physical and social engineers of the world around them. One of the most prominent ways we do this is through the Payne Scholars program. This one-credit course helps students perform research, collaborate across campus, and engage with a broad network of international experts on global policy challenges. Students are taught how to write academic papers on the important issues we are facing today, and once the students finish the course, the papers they write can be published as Payne Commentaries on our website. We often sponsor students for internships, or offer student worker positions to continue their work. This often means that they get to be co-authors on peer-reviewed academic papers or help us build world-shaping policy.

**HNRS498. SPECIAL TOPICS IN THE MCBRIDE HONORS PROGRAM IN PUBLIC AFFAIRS. 1-6 Semester Hr.**

A Special Topics course will be a pilot course in the McBride curriculum or will be offered as an enhancement to regularly-scheduled McBride seminars. Special Topics courses in the McBride curriculum will not be offered more than twice. Variable credit: 1 - 6 semester hours. Repeatable for credit under different titles.

**HNRS499. INDEPENDENT STUDY. 1-6 Semester Hr.**

Under special circumstances, a McBride student may use this course number to register for an independent study project which substitutes for or enhances the regularly-scheduled McBride curriculum seminars. Variable credit: 1 - 6 semester hours. Repeatable for credit.

**LICM198. SPECIAL TOPICS. 0.5-6 Semester Hr.**

(I, II) Pilot course or special topics course. Topics chosen from special interests of instructor(s) and student(s). Usually the course is offered only once. Prerequisite: none. Variable credit; 1 to 6 credit hours. Repeatable for credit under different titles.

**LICM298. SPECIAL TOPICS. 0.5-6 Semester Hr.**

(I, II) Pilot course or special topics course. Topics chosen from special interests of instructor(s) and student(s). Usually the course is offered only once. Prerequisite: none. Variable credit; 1 to 6 credit hours. Repeatable for credit under different titles.

**LIFL113. SPANISH I. 3.0 Semester Hrs.**

Fundamentals of spoken and written Spanish with an emphasis on vocabulary, idiomatic expressions of daily conversation, and Spanish American culture. 3 semester hours.

**LIFL114. ARABIC I. 3.0 Semester Hrs.**

Fundamentals of spoken and written Arabic with an emphasis on vocabulary, idiomatic expressions of daily conversation, and culture of Arabic-speaking societies. 3 semester hours.

**LIFL115. GERMAN I. 3.0 Semester Hrs.**

Fundamentals of spoken and written German with an emphasis on vocabulary, idiomatic expressions of daily conversation, and German culture. 3 semester hours.

**LIFL119. FRENCH I. 3.0 Semester Hrs.**

(I) French I provides basic instruction in speaking, reading, listening, and writing the French language, with emphasis in class on communicating through speaking and listening skills. French and francophone culture will also be studied. Successful completion of French I will allow students to further their french studies in level 2. 3 hours lecture, 3 semester hours.

**LIFL123. SPANISH II. 3.0 Semester Hrs.**

Continuation of Spanish I with an emphasis on acquiring conversational skills as well as further study of grammar, vocabulary, and Spanish American culture. 3 semester hours.

**LIFL124. ARABIC II. 3.0 Semester Hrs.**

Continuation of Arabic I with an emphasis on acquiring conversational skills as well as further study of grammar, vocabulary, and culture of Arabic speaking societies. 3 semester hours.

**LIFL125. GERMAN II. 3.0 Semester Hrs.**

Continuation of German I with an emphasis on acquiring conversational skills as well as further study of grammar, vocabulary, and German culture. 3 semester hours.

**LIFL129. FRENCH II. 3.0 Semester Hrs.**

French 2 provides continued instruction in speaking, reading, listening, and writing the French language, with emphasis in class on communicating through speaking and listening skills. French and francophone culture will also be studied. 3 hours lecture. Prerequisite: LIFL119.

**LIFL198. SPECIAL TOPICS. 1-6 Semester Hr.**

(I, II) Pilot course or special topics course. Topics chosen from special interests of instructor(s) and student(s). Usually the course is offered only once. Prerequisite: none. Variable credit; 1 to 6 credit hours. Repeatable for credit under different titles.

**LIFL199. INDEPENDENT STUDY. 1-6 Semester Hr.**

(I, II) Individual research or special problem projects supervised by a faculty member, also, when a student and instructor agree on a subject matter, content, and credit hours. Prerequisite: ?Independent Study? form must be completed and submitted to the Registrar. Variable credit; 1 to 6 credit hours. Repeatable for credit.

**LIFL213. SPANISH III. 3.0 Semester Hrs.**

Emphasis on furthering conversational skills and a continuing study of grammar, vocabulary, and Spanish American culture. 3 semester hours.

**LIFL298. SPECIAL TOPICS. 1-6 Semester Hr.**

(I, II) Pilot course or special topics course. Topics chosen from special interests of instructor(s) and student(s). Usually the course is offered only once. Prerequisite: none. Variable credit; 1 to 6 credit hours. Repeatable for credit under different titles.

**LIFL299. INDEPENDENT STUDY. 6.0 Semester Hrs.**

(I, II) Individual research or special problem projects supervised by a faculty member, also, when a student and instructor agree on a subject matter, content, and credit hours. Prerequisite: ?Independent Study? form must be completed and submitted to the Registrar. Variable credit; 1 to 6 credit hours. Repeatable for credit.

**LIFL398. SPECIAL TOPICS. 1-6 Semester Hr.**

(I, II) Pilot course or special topics course. Topics chosen from special interests of instructor(s) and student(s). Usually the course is offered only once. Prerequisite: none. Variable credit; 1 to 6 credit hours. Repeatable for credit under different titles.

**LIFL399. INDEPENDENT STUDY. 1-6 Semester Hr.**

(I, II) Individual research or special problem projects supervised by a faculty member, also, when a student and instructor agree on a subject matter, content, and credit hours. Prerequisite: ?Independent Study? form must be completed and submitted to the Registrar. Variable credit; 1 to 6 credit hours. Repeatable for credit.

**LIFL498. SPECIAL TOPICS. 1-6 Semester Hr.**

(I, II) Pilot course or special topics course. Topics chosen from special interests of instructor(s) and student(s). Usually the course is offered only

once. Prerequisite: none. Variable credit; 1 to 6 credit hours. Repeatable for credit under different titles.

**LIFL499. INDEPENDENT STUDY. 1-6 Semester Hr.**

(I, II) Individual research or special problem projects supervised by a faculty member, also, when a student and instructor agree on a subject matter, content, and credit hours. Prerequisite: ?Independent Study? form must be completed and submitted to the Registrar. Variable credit; 1 to 6 credit hours. Repeatable for credit.

**LIMU101. CSM CONCERT/MARCH BAND-FRESHMAN. 1.0 Semester Hr.**

Study, rehearsal, and performance of concert, marching and stage repertory. Emphasis on fundamentals of rhythm, intonation, embouchure, and ensemble. 2 hours rehearsal; 1 semester hour. Not repeatable using same course number. See rules limiting the number of hours applicable to a degree above.

**LIMU102. COLORADO SCHOOL OF MINES SYMPHONY ORCHESTRA - FRESHMAN. 1.0 Semester Hr.**

(I, II, S) The Colorado School of Mines Symphony Orchestra is a full orchestra including strings, woodwinds, brass, and percussion. The orchestra studies a wide range of repertoire including standard orchestral works in addition to popular selections, film soundtracks, and chamber ensemble pieces. Performances include formal concerts, silent film soundtrack productions, and chamber music recitals; while performance frequency varies by semester, there are typically one to two large-ensemble performances per semester and one to three chamber performances per semester. Grading is based on individual participation and preparation. Offered every other year. 3 hours lab; 1 semester hour.

**Course Learning Outcomes**

- Generally, students will study two large symphonic works and four less complex pieces per semester in addition to one to three small chamber works of varying complexity.

**LIMU111. CSM CONCERT CHOIR - FRESHMAN. 1.0 Semester Hr.**

Study, rehearsal, and performance of choral music of the classical, romantic, and modern periods with special emphasis on principles of diction, rhythm, intonation, phrasing, and ensemble. 2 hours rehearsal; 1 semester hour. Not repeatable using same course number. See rules limiting the number of hours applicable to a degree above.

**LIMU112. CSM CONCERT CHOIR - FRESHMAN. 1.0 Semester Hr.**

Study, rehearsal, and performance of choral music of the classical, romantic, and modern periods with special emphasis on principles of diction, rhythm, intonation, phrasing, and ensemble. 2 hours rehearsal; 1 semester hour. Not repeatable using same course number. See rules limiting the number of hours applicable to a degree above.

**LIMU121. GUITAR ENSEMBLE. 1.0 Semester Hr.**

(I, II, S) Students will learn the basics of classical guitar playing in a non-threatening environment. Utilizing beginning to intermediate classical guitar tunes, students will advance the fundamental guitar technique as well as the music reading skill on classical guitar. Reading skill is the foundation of students' future engagement with all forms of music, therefore considerable amount of class resources will be devoted to this particular discipline. Participation in the departmental concert at the end of the semester is mandatory. Offered every other year. 3 hours lab; 1 semester hour.

**Course Learning Outcomes**

- o Learn and understand the fundamental classical guitar technique
- o Learn to play classical guitar ensemble pieces from various time periods
- o Being able to follow the conductor and play in time
- o The

ability to read standard music notation on the guitar will be stressed throughout the semester

**LIMU189. INDIVIDUAL INSTRUMENTAL OR VOCAL MUSIC INSTRUCTION. 1.0 Semester Hr.**

(I, II) The course affords the student an opportunity to study privately with CSM music faculty on a wide range of instruments including guitar, piano, bass guitar, voice, saxophone, flute, drums and world instruments. Students will be required to practice regularly and demonstrate proficiency on their instrument/voice. Topics of this class will include performance etiquette, musicianship, musical styles, stylistic vocabulary, foreign language and basic music theory. 1 credit hour.

**LIMU198. SPECIAL TOPICS. 6.0 Semester Hrs.**

(I, II) Pilot course or special topics course. Topics chosen from special interests of instructor(s) and student(s). Usually the course is offered only once. Prerequisite: none. Variable credit; 1 to 6 credit hours. Repeatable for credit under different titles.

**LIMU199. INDEPENDENT STUDY. 1-6 Semester Hr.**

(I, II) Individual research or special problem projects supervised by a faculty member, also, when a student and instructor agree on a subject matter, content, and credit hours. Prerequisite: ?Independent Study? form must be completed and submitted to the Registrar. Variable credit; 1 to 6 credit hours. Repeatable for credit.

**LIMU201. CSM CONCERT/MARCH BAND-SOPHOMORE. 1.0 Semester Hr.**

Study, rehearsal, and performance of concert, marching and stage repertory. Emphasis on fundamentals of rhythm, intonation, embouchure, and ensemble. 2 hours rehearsal; 1 semester hour. Not repeatable using same course number. See rules limiting the number of hours applicable to a degree above.

**LIMU202. COLORADO SCHOOL OF MINES SYMPHONY ORCHESTRA - SOPHOMORE. 1.0 Semester Hr.**

(II) The Colorado School of Mines Symphony Orchestra is a full orchestra including strings, woodwinds, brass, and percussion. The orchestra studies a wide range of repertoire including standard orchestral works in addition to popular selections, film soundtracks, and chamber ensemble pieces. Performances include formal concerts, silent film soundtrack productions, and chamber music recitals; while performance frequency varies by semester, there are typically one to two large-ensemble performances per semester and one to three chamber performances per semester. Grading is based on individual participation and preparation. Offered every other year. 3 hours lab; 1 semester hour.

**Course Learning Outcomes**

- While performance repertoire changes a great deal due to the nature of ensemble music education, technical studies will remain consistent. Technical studies are meant to improve physical ability on students' instruments and include scales and arpeggios as well as intonation interval drills. Bach chorales are used to study balance, blend, and intonation in a simplified setting.

**LIMU211. csm CONCERT CHOIR - SOPHOMORE. 1.0 Semester Hr.**

Study, rehearsal, and performance of choral music of the classical, romantic, and modern periods with special emphasis on principles of diction, rhythm, intonation, phrasing, and ensemble. 2 hours rehearsal; 1 semester hour. Not repeatable using same course number. See rules limiting the number of hours applicable to a degree above.

**LIMU212. CSM CONCERT CHOIR - SOPHOMORE. 1.0 Semester Hr.**

Study, rehearsal, and performance of choral music of the classical, romantic, and modern periods with special emphasis on principles of

diction, rhythm, intonation, phrasing, and ensemble. 2 hours rehearsal; 1 semester hour. Not repeatable using same course number. See rules limiting the number of hours applicable to a degree above.

**LIMU298. SPECIAL TOPICS. 1-6 Semester Hr.**

(I, II) Pilot course or special topics course. Topics chosen from special interests of instructor(s) and student(s). Usually the course is offered only once. Prerequisite: none. Variable credit; 1 to 6 credit hours. Repeatable for credit under different titles.

**LIMU299. INDEPENDENT STUDY. 1-6 Semester Hr.**

(I, II) Individual research or special problem projects supervised by a faculty member, also, when a student and instructor agree on a subject matter, content, and credit hours. Prerequisite: ?Independent Study? form must be completed and submitted to the Registrar. Variable credit; 1 to 6 credit hours. Repeatable for credit.

**LIMU301. CSM CONCERT/MARCH BAND-JUNIOR. 1.0 Semester Hr.**

Study, rehearsal, and performance of concert, marching and stage repertory. Emphasis on fundamentals of rhythm, intonation, embouchure, and ensemble. 2 hours rehearsal; 1 semester hour. Not repeatable using same course number. See rules limiting the number of hours applicable to a degree above.

**LIMU302. COLORADO SCHOOL OF MINES SYMPHONY ORCHESTRA - JUNIOR. 1.0 Semester Hr.**

(II) The Colorado School of Mines Symphony Orchestra is a full orchestra including strings, woodwinds, brass, and percussion. The orchestra studies a wide range of repertoire including standard orchestral works in addition to popular selections, film soundtracks, and chamber ensemble pieces. Performances include formal concerts, silent film soundtrack productions, and chamber music recitals; while performance frequency varies by semester, there are typically one to two large-ensemble performances per semester and one to three chamber performances per semester. Grading is based on individual participation and preparation. Offered every other year. 3 hours lab; 1 semester hour.

**Course Learning Outcomes**

- The Colorado School of Mines Symphony Orchestra seeks to develop musicianship, communication, leadership, and social engagement through the study of standard orchestral repertoire, current popular repertoire, film soundtracks, and chamber music. Further, orchestral music education helps students develop critical listening and problem-solving skills, independently seek out new information, explore how historical and theoretical context informs interpretation, and to stimulate their desire to strive for excellence.

**LIMU311. CSM CONCERT CHOIR - JUNIOR. 1.0 Semester Hr.**

Study, rehearsal, and performance of choral music of the classical, romantic, and modern periods with special emphasis on principles of diction, rhythm, intonation, phrasing, and ensemble. 2 hours rehearsal; 1 semester hour. Not repeatable using same course number. See rules limiting the number of hours applicable to a degree above.

**LIMU312. CSM CONCERT CHOIR - JUNIOR. 1.0 Semester Hr.**

Study, rehearsal, and performance of choral music of the classical, romantic, and modern periods with special emphasis on principles of diction, rhythm, intonation, phrasing, and ensemble. 2 hours rehearsal; 1 semester hour. Not repeatable using same course number. See rules limiting the number of hours applicable to a degree above.

**LIMU398. SPECIAL TOPICS. 1-6 Semester Hr.**

(I, II) Pilot course or special topics course. Topics chosen from special interests of instructor(s) and student(s). Usually the course is offered only once. Prerequisite: none. Variable credit; 1 to 6 credit hours. Repeatable for credit under different titles.

**LIMU399. INDEPENDENT STUDY. 1-6 Semester Hr.**

(I, II) Individual research or special problem projects supervised by a faculty member, also, when a student and instructor agree on a subject matter, content, and credit hours. Prerequisite: ?Independent Study? form must be completed and submitted to the Registrar. Variable credit; 1 to 6 credit hours. Repeatable for credit.

**LIMU401. CSM CONCERT/MARCH BAND-SENIOR. 1.0 Semester Hr.**

(I) The Colorado School of Mines Symphony Orchestra is a full orchestra including strings, woodwinds, brass, and percussion. The orchestra studies a wide range of repertoire including standard orchestral works in addition to popular selections, film soundtracks, and chamber ensemble pieces. Performances include formal concerts, silent film soundtrack productions, and chamber music recitals; while performance frequency varies by semester, there are typically one to two large-ensemble performances per semester and one to three chamber performances per semester. Grading is based on individual participation and preparation. 3 hours lab; 1 semester hour.

**Course Learning Outcomes**

- While performance repertoire changes a great deal due to the nature of ensemble music education, technical studies will remain consistent. Technical studies are meant to improve physical ability on students' instruments and include scales and arpeggios as well as intonation interval drills. Bach chorales are used to study balance, blend, and intonation in a simplified setting.

**LIMU402. COLORADO SCHOOL OF MINES SYMPHONY ORCHESTRA - SENIOR. 1.0 Semester Hr.**

(II) The Colorado School of Mines Symphony Orchestra is a full orchestra including strings, woodwinds, brass, and percussion. The orchestra studies a wide range of repertoire including standard orchestral works in addition to popular selections, film soundtracks, and chamber ensemble pieces. Performances include formal concerts, silent film soundtrack productions, and chamber music recitals; while performance frequency varies by semester, there are typically one to two large-ensemble performances per semester and one to three chamber performances per semester. Grading is based on individual participation and preparation. Offered every other year. 3 hours lab; 1 semester hour.

**Course Learning Outcomes**

- Technical studies are meant to improve physical ability on students' instruments and include scales and arpeggios as well as intonation interval drills. Bach chorales are used to study balance, blend, and intonation in a simplified setting.

**LIMU411. CSM CONCERT CHOIR - SENIOR. 1.0 Semester Hr.**

Study, rehearsal, and performance of choral music of the classical, romantic, and modern periods with special emphasis on principles of diction, rhythm, intonation, phrasing, and ensemble. 2 hours rehearsal; 1 semester hour. Not repeatable using same course number. See rules limiting the number of hours applicable to a degree above.

**LIMU412. CSM CONCERT CHOIR - SENIOR. 1.0 Semester Hr.**

Study, rehearsal, and performance of choral music of the classical, romantic, and modern periods with special emphasis on principles of diction, rhythm, intonation, phrasing, and ensemble. 2 hours rehearsal; 1 semester hour. Not repeatable using same course number. See rules limiting the number of hours applicable to a degree above.

**LIMU421. JAZZ ENSEMBLE. 1.0 Semester Hr.**

FALL The Jazz Ensemble provides an opportunity for students to participate in a musical ensemble in the jazz big band format. Jazz music is a unique American art form. The big band jazz format is an exciting

way for students to experience the power, grace and beauty of this art form and music in general. The class will consist of regular weekly rehearsals and one or more concert performance (s). 1 semester hour. Repeatable for credit. See rules limiting the number of hours applicable to a degree above.

**LIMU422. JAZZ ENSEMBLE - SPRING. 1.0 Semester Hr.**

SPRING The Jazz Ensemble provides an opportunity for students to participate in a musical ensemble in the jazz big band format. Jazz music is a unique American art form. The big band jazz format is an exciting way for students to experience the power, grace and beauty of this art form and music in general. The class will consist of regular weekly rehearsals and one or more concert performance(s). 1 semester hour. Repeatable for credit. See rules limiting the number of hours applicable to a degree above.

**LIMU423. JAZZ LAB. 1.0 Semester Hr.**

The Jazz Lab provides an opportunity for students to participate in a musical ensemble in the jazz combo format. Jazz music is a unique American art form. The jazz combo format is an exciting way for students to experience the joy and sense of achievement of performing this great American music form. The class will consist of regular weekly rehearsals and one or more concert performance(s). 1 semester hour. Repeatable for credit. See rules limiting the number of hours applicable to a degree above.

**LIMU450. MUSIC TECHNOLOGY CAPSTONE COURSE. 3.0 Semester Hrs.**

Project-based course designed to develop practical technological and communication skills for direct application to the music recording. Prerequisite: LIMU340 and LIMU350. 3 hours seminar; 3 semester hours.

**LIMU498. SPECIAL TOPICS. 1-6 Semester Hr.**

(I, II) Pilot course or special topics course. Topics chosen from special interests of instructor(s) and student(s). Usually the course is offered only once. Prerequisite: none. Variable credit; 1 to 6 credit hours. Repeatable for credit under different titles.

**LIMU499. INDEPENDENT STUDY. 1-6 Semester Hr.**

(I, II) Individual research or special problem projects supervised by a faculty member, also, when a student and instructor agree on a subject matter, content, and credit hours. Prerequisite: ?Independent Study? form must be completed and submitted to the Registrar. Variable credit; 1 to 6 credit hours. Repeatable for credit.

## Professors

Hussein A. Amery

Lucas Bessire, effective January 2025

Jon Leydens

Kenneth Osgood

## Associate Professors

Tina L. Gianquitto

Kathleen J. Hancock

Adrienne Kroepsch

James D. Straker

## Teaching Professors

Cortney Holles

Jonathan Cullison

Paula A. Farca

Joseph Horan

Derrick Hudson, NREP Graduate Program Director

Shannon Davies Mancus, Associate Department Head

Seth Tucker

Sandy Woodson, Department Head

## Teaching Associate Professors

Eliza Buhner

Heather Fester

## Teaching Assistant Professors

Mairead Case

Masakazu Ito

Alison Kerr

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## Professors Emeriti

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Carl Mitcham

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## Associate Professors Emeriti

Betty J. Cannon

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Laura J. Pang

Karen B. Wiley

## Teaching Professor Emeriti

Robert Klimek



James Jesudason

**Teaching Associate Professor Emerti**

Rose Pass