This is a hybrid course. Hybrid courses include both regularly scheduled on-site classroom meetings and significant online, out-of-classroom components that replace regularly scheduled class meeting time. A substantial portion of the course learning activities are delivered online, but tuition charges are the same as Corvallis on-campus courses. This course is focused on the application of microeconomics to environmental problems. The environmental problem of climate change will provide a focal set of applications of microeconomic principles. The course is divided into three primary sections. The first section will develop an understanding of rational choice theory, supply and demand, and price formation. The second section focuses on important applications of microeconomics to the environment, focusing on the policy problem of pollution control. The third section focuses on behavior of firms, with an emphasis on the implications of that behavior for the environment. MTH 111 or equivalent is recommended. Satisfies: HC Bacc Core - Social Processes & Institutions

ANTH 374H Anthropology and Global Health

This class introduces students to the fascinating and fast-paced field of global health. Students will learn about polio eradication in Pakistan and India, HIV/AIDS treatment in Ethiopia, Rwanda, and Uganda, tobacco control in South Africa, malnutrition in Haiti, schizophrenia in Indonesia, and Malaria control in Zambia. Throughout the course, our focus is on the people who respond to health problems—including the most prominent international experts, the often-unheard “local people,” and the anthropologists who listen to both. We will examine how all of these people’s health-oriented actions, goals, and dreams are shaped by history, politics, inequality, relationships, and culture. We will also focus on the histories behind global health grand challenges—from Health Systems Strengthening to the development of vaccines for drug-resistant forms of malaria and HIV/AIDS—that currently capture the attention of so many students, health workers, policy makers and officials. The course aims not only to educate students, but also to inspire and help students think more deeply about their own moral convictions and visions of how health care delivery should work around the world. As a student in this class, you will be expected to carefully read texts before class, do in-class group work on case studies in global health, write a short reflection paper, and participate openly in discussion and lecture. Satisfies: HC Bacc Core - Contemporary Global Issues

BA 161H Innovation Nation - Awareness to Action

AND choose one of the following lecture sections.

CRN: 39378  Section 019  REC  F 900 - 950  Sandra Neubaum

CRN: 39365  Section 010  LEC  MW 1200 - 1250  Marcella Flores

CRN: 39370  Section 012  LEC  TR 1300 - 1350  Amy Neuman

CRN: 39374  Section 014  LEC  TR 1200 - 1250  Amy Neuman

CRN: 39577  Section 016  LEC  MW 1300 - 1350  Marcella Flores

First course in a two-course sequence. Begins a conversation on self-management, offering opportunities for active reflection on critical skill sets necessary for success in today’s global market. Builds a foundation of entrepreneurial knowledge and gaining a competitive edge while becoming aware of your role in managing your own career. The section of BA 161H students take in Winter determines which section of BA 162H they will need in the Spring - instructors will help students match their winter and spring sections of the courses during class. Course is shared with a section for COB Dean's Academy students. 2 out of the 3 OSU credits earned will count toward Honors College requirements. No-show-drop: students who do not attend the class by the second class meeting will be removed from the course. For first-year students only. Satisfies: HC Elective
BA 213H      Managerial Accounting
CRN: 38897    Section 001   LEC   MW 1200 - 1350  4 HC Credit(s)
Instructor(s): Roger Graham Jr.

Accounting information from the perspective of management users with an emphasis on data accumulation for product costing, planning, and performance evaluation and control. Course is shared with a section for COB Dean's Academy students. **No-show-drop**: students who do not attend the class by the second class meeting will be removed from the course. **PREREQS**: BA 211/211H. Pre-Business Majors/Minors only. Minimum of sophomore standing required. **Satisfies: HC Elective**

BA 230H      Business Law I
CRN: 38899    Section 001   LEC   MW 1000 - 1150  4 HC Credit(s)
Instructor(s): Inara Scott

Nature and function of law in our business society. Obligations arising out of agency, contract formation and breach, crimes, torts, warranty, regulation of competition, and international aspects thereof. Course is shared with a section for COB Dean's Academy students. **No-show-drop**: students who do not attend the class by the second class meeting will be removed from the course. Pre-Business Majors/Minors only. Minimum of sophomore standing required. **Satisfies: HC Elective**

BA 275H      Foundations of Statistical Inference
CRN: 38901    Section 001   LEC   MW 1600 - 1750  4 HC Credit(s)
Instructor(s): Xiaohui Chang

An introductory course on statistical inference with an emphasis on business applications. Coverage includes descriptive statistics, random variables, probability distributions, sampling and sampling distributions, statistical inference for means and proportions using one and two samples, and linear regression analysis. Course is shared with a section for COB Dean's Academy students. **No-show-drop**: students who do not attend the class by the second class meeting will be removed from the course. **PREREQS**: MTH 241 OR MTH 251/251H. Pre-Business Majors/Minors only. Minimum of sophomore standing required. **Satisfies: HC Elective**

BA 357H      Operations Management
CRN: 38903    Section 001   LEC   TR 1600 - 1750  4 HC Credit(s)
Instructor(s): Guanyi Lu

Decision making in managing the production of goods and services: product planning, process planning, facility planning, control of quantity, cost and quality. Special emphasis on exponential forecasting, inventory management, work methods, project management, productivity improvement, and international comparisons. Course is shared with a section for COB Dean's Academy students. **No-show-drop**: students who do not attend the class by the second class meeting will be removed from the course. **PREREQS**: BA 275/275H OR BA 276. Business Majors/Minors only. Junior or senior standing required. **Satisfies: HC Elective**
BA 360H  Introduction to Financial Management
CRN: 38905  Section 001  LEC  TR 800 - 950  4 HC Credit(s)
        OR
CRN: 39390  Section 003  LEC  TR 1000 - 1150
Instructor(s): Sean Yang
Explore the issues facing a financial manager in new business ventures, small businesses, and corporations. Focus on the role of the financial manager in business settings, explores the functions of a financial manager in financial analysis, forecasting, planning, and control; asset and liability management; capital budgeting; and raising funds for new business ventures, small businesses, and corporations. Course is shared with a section for COB Dean’s Academy students. **No-show-drop:** students who do not attend the class by the second class meeting will be removed from the course. PREREQS: (BA213/213H OR BA 215/215H) AND (ECON 201/201H OR AREC 250). Business Majors/Minors only. Junior or senior standing required. **Satisfies: HC Elective**

BA 390H  Marketing
CRN: 37959  Section 001  LEC  MW 1200 - 1350  4 HC Credit(s)
Instructor(s): Staff TBD
Consumer and industrial markets, and activities and enterprises involved in distributing products to those markets. Objective is to develop an understanding of distribution processes, marketing problems, and marketing principles. Course is shared with a section for COB Dean’s Academy students. **No-show-drop:** students who do not attend the class by the second class meeting will be removed from the course. PREREQS: ECON 201/201H OR AREC 250. Business Majors/Minors only. Junior or senior standing required. **Satisfies: HC Elective**

BA 465H  Systems Thinking and Practice
CRN: 33397  Section 001  LEC  TR 1000 - 1150  4 HC Credit(s)
Instructor(s): Jonathan King
This course will get you to “think outside the box” by examining the hard and soft systems which both sustain and constrain us. This involves learning how to identify patterns of interactions, the increasing relevance of emotional intelligences, and the realities of “Tools ‘R Us.” The ultimate objective is to enhance our awareness of individual moral responsibilities and opportunities by moving beyond linear causality and the subjective-objective and fact-value dualisms that continue to plague modern thought and action. Upper-division standing not required, students from all disciplines are welcome. **Satisfies: HC Bacc Core - Contemporary Global Issues**

BI 212H  Principles of Biology
CRN: 32489  Section 001  LEC  MWF 1300 - 1350  Nathan Kirk
AND choose one of the lab sections below
CRN: 32490  Section 010  LAB  W 1400 - 1650  Nathan Kirk
CRN: 33401  Section 020  LAB  R 800 - 1050  Adam Chouinard
Cell biology, organ systems, plant and animal biology. Group Midterms Mondays 1900-2020. PREREQS: CH 121 OR CH 201 OR CH 221 OR CH 224H OR (CH 231/231H AND (CH 261/261H OR CH 271)). For Life Science Majors and Pre-Professional students. **Course Fee $30. Satisfies: HC Bacc Core - Biological Sciences**
Some poets are keen observers of nature. Lovers of nature and scientists can learn from reading their poetry, which helps us to see nature in new ways. To appreciate such poetry fully, a reader needs to understand the objects and processes the poems describe. In this class, we will seek to educate ourselves about the authors’ subjects sufficiently to appreciate their presentation of nature. We will read poetry, both outside and during class, about the natural landscape, plants and animals, and ecological phenomena, especially in the northwestern US. We will identify and discuss the natural phenomena that are represented by the poetry, and the insights into nature that the poets provide. We will select some phenomena for detailed study and discussion. We will visit and discuss the history and properties of a Willamette Valley landscape, and identify in it the types of phenomena represented by what we have read, which we could use in our writing about the place we live. We will write about what we see. **Meets weeks 1-5 only, Required field trip 1/27/18** that will depart at 8:00 AM and return at approximately 12:00 noon. **Graded: P/N. Satisfies: HC Colloquia**

### CBEE 102H Engineering Problem Solving and Computations

<table>
<thead>
<tr>
<th>CRN</th>
<th>Section</th>
<th>Type</th>
<th>Days</th>
<th>Time</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>34768</td>
<td>001</td>
<td>LEC</td>
<td>MF</td>
<td>1000 - 1050</td>
<td>2</td>
</tr>
</tbody>
</table>

AND choose one of the following lab sections:

<table>
<thead>
<tr>
<th>CRN</th>
<th>Section</th>
<th>Type</th>
<th>Days</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>34769</td>
<td>010</td>
<td>LAB</td>
<td>TR</td>
<td>800 - 950</td>
</tr>
<tr>
<td>35550</td>
<td>020</td>
<td>LAB</td>
<td>TR</td>
<td>1000 - 1150</td>
</tr>
</tbody>
</table>

Instructor(s): Brian Wood

Elementary programming concepts implemented using MATLAB software; emphasis on problem analysis and development of algorithms in engineering; application experiences are established through a team-based design competition using the LEGO NXT microprocessor for data acquisition. Lecture is common with non-honors. 2 out of the 3 OSU credits earned count toward Honors College requirements. PREREQ: MTH 112 OR MTH 251/251H. For Pre-Bioengineering, Pre-Environmental Engineering, Pre-Chemical Engineering, and Pre-General Engineering students only. **Satisfies: HC Elective**

### CBEE 212H Energy Balances

<table>
<thead>
<tr>
<th>CRN</th>
<th>Section</th>
<th>Type</th>
<th>Days</th>
<th>Time</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>35848</td>
<td>001</td>
<td>LEC</td>
<td>MF</td>
<td>1000 - 1050</td>
<td>1</td>
</tr>
</tbody>
</table>

AND

<table>
<thead>
<tr>
<th>CRN</th>
<th>Section</th>
<th>Type</th>
<th>Days</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>35849</td>
<td>010</td>
<td>REC</td>
<td>W</td>
<td>1000 - 1050</td>
</tr>
</tbody>
</table>

AND

<table>
<thead>
<tr>
<th>CRN</th>
<th>Section</th>
<th>Type</th>
<th>Days</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>35850</td>
<td>020</td>
<td>STD</td>
<td>T</td>
<td>1300 - 1350</td>
</tr>
</tbody>
</table>

Instructor(s): Adam Higgins

Energy balances, thermophysical and thermochemical calculations. Lecture and recitation common with non-honors. 1 out of the 3 OSU credits earned count toward Honors College requirements. PREREQ: CBEE 211/211H AND MTH 256/256H. MTH 256/256H can be taken concurrently. For Engineering and Pre-Engineering students only. Minimum of sophomore standing required. **Satisfies: HC Elective**
CH 232H  General Chemistry

Choose Lecture and one of the corresponding Recitation sections.

CRN: 34777  Section 001  LEC  MWF 1200 - 1250  Michael Lerner

AND

CRN: 34918  Section 010  REC  T 1500 - 1550  Michael Lerner

OR

CRN: 34919  Section 011  REC  R 1400 - 1450  Michael Lerner

AND choose one of the CH 262H Laboratory sections

CRN: 34778  Section 010  LAB  T 1200 - 1450  Michael Burand

OR

CRN: 34779  Section 011  LAB  R 1500 - 1750  Michael Burand

Second course in General Chemistry sequence for Honors College students with one year of high school chemistry and acceptable aptitude test scores. This sequence examines the characteristics of molecular and atomic behavior and the way in which these influence chemical properties and reactions. PREREQ for CH 232H: CH231/231H OR CH 221. PREREQ for CH 262H lab section: CH 261/261H OR CH271 OR CH221 OR CH224H. CH 232H and CH 262H must be taken concurrently. CH 231/231H, CH232/232H, and CH233/233H must be taken in order. Course Fee $30. Satisfies: HC Bacc Core - Physical Sciences

CH 362H  Experimental Chemistry I

CRN: 32463  Section 010  LEC  T 1200 - 1250

AND

CRN: 32464  Section 011  LAB  T 1300 - 1550 & R 1200 - 1550

OR

CRN: 32465  Section 020  LEC  W 1200 - 1250

AND

CRN: 32466  Section 021  LAB  W 1300 -1550 & F 1200 - 1550

Instructor(s): Kevin Gable & Paul Blakemore

Advanced integrated laboratory course for sophomore level chemistry majors and biochemistry and biophysics majors concentrating on organic synthesis, thermochemistry and spectroscopic methods of identification. Students learn first hand techniques of: vacuum distillation, oxygen bomb calorimetry, infrared spectroscopy, and 1-D and 2-D NMR methods. Must contact Chemistry department to register. PREREQ: CH 361/361H AND CH 335. CH 335 can be taken concurrently. For Chemistry and Biochemistry/Biophysics majors only. Course Fee $44.00. Fee is non-refundable. Additional no-show-drop fee. Satisfies: HC Elective
CH 462H  Experimental Chemistry II

CRN: 32467  Section 001  LEC  W 1300 - 1350  3 HC Credit(s)

AND

CRN: 32468  Section 010  LAB  W 1400 - 1650 & F 1300 - 1650

Instructor(s): Christine Pastorek & David Ji

Advanced integrated laboratory course for junior level chemistry majors concentrating on physical and analytical chemistry of polymers and materials. Students synthesize a synthetic rock, zeolite, and make PMMA, a polymer. Students learn first hand techniques of: PXRD, INAA, DSC, TGA, GPC, electrochemistry, reaction kinetics by flash photolysis, pulsed polarography and ASV. **Must contact Chemistry department to register.** PREREQ: CH 362/362H AND CH 441 AND (CH 324 OR CH 461/461H). CH 422 is recommended. **Course Fee $44.00. Fee is non-refundable. Additional no-show-drop fee. Satisfies: HC Elective**

CHE 332H  Transport Phenomena II

CRN: 36196  Section 001  LEC  TR 1200 - 1250 & GRP MID

AND

CRN: 36195  Section 010  STD  MW 1300 - 1350  1 HC Credit(s)

Instructor(s): Skip Rochefort

A unified treatment using control volume and differential analysis of heat transfer, prediction of heat transport properties, and introduction to heat transfer operations. Lecture is common with non-honors. 1 out of the 3 OSU credits earned counts toward Honors College requirements. **PREREQ: CHE 311 AND CHE 331/331H. Must be enrolled in pro-school in the College of Engineering. Satisfies: HC Elective**

CS 325H  Analysis of Algorithms

CRN: 38406  Section 001  LEC  MWF 1300 - 1350  4 HC Credit(s)

Instructor(s): Julia Schutfort

In this class, you will master algorithmic techniques such as dynamic programming and divide-and-conquer and learn how to argue that your algorithms are correct and fast. You will apply this knowledge to tackling problems from the International Collegiate Programming Contest. **PREREQ: CS 261 AND (CS 225 OR MTH 231). Must be enrolled in pro-school in the College of Engineering. Not for Computer Science Double Degree students. Satisfies: HC Elective**
DHE/WSE 415H  Renewable Materials in the Modern Age

CRN: 38908  Section 001  LEC  M 900 - 950  3 HC Credit(s)

AND

CRN: 38909  Section 010  LAB  M 1000 - 1150

AND

CRN: 38910  Section 020  STD  W 1000 - 1150

Instructor(s): S.C. Robinson & Eric Hinsch

This course is designed to bridge the information gap in wood design fields between artists, designers, architects, engineers, and scientists by delivering information on the anatomy of renewable materials in an accessible, cross-disciplinary format. Those with a background in wood science and those merely interested in renewable materials will find this course useful. Throughout the course, students will develop a fundamental understanding of the properties, characteristics, and role of wood and other renewable materials in today’s society, along with their importance in sustainable consumerism and the global wood trade. This course will culminate with a design project in which the knowledge gained, combined with the unique background of each student, will be applied to a final project. Class instruction will combine lecture, laboratory and studio time, as well as situational learning experiences. With the smaller size of the HC classes, more time can be spent on the hands-on portion of the class, including greater access to the woodshop, materials, and instructor time. Crosslisted with WSE 415H. Renewable Materials students should register for the WSE section (see WSE 415H). Course Fee $80.00. Satisfies: HC Bacc Core - Science, Technology and Society

ENG 254H  Survey of American Literature: 1900 to Present

CRN: 38911  Section 001  LEC  TR 1000 - 1120  4 HC Credit(s)

Instructor(s): Anita Helle

This course offers an introduction to the key figures and movements of American literature from 1900 to the present. The key questions that we will ask concern the ways that we might categorize the large and heterogeneous output of American literary artists during this period. We will begin by asking what makes writing "Modernist" and will conclude with ways that contemporary writers continue and depart from these traditions. Students will have an opportunity to explore a variety of modern genres (poetry, fiction, drama, non-fiction) in literary and historical contexts. Although the focus will be on literary texts, students will have opportunities to construct connections between literary and visual, oral, and media texts. Satisfies: HC Bacc Core - Literature and the Arts OR Western Culture

ENGR 201H  Electrical Fundamentals I

CRN: 35851  Section 001  LEC  TR 1400 - 1450  3 HC Credit(s)

AND

CRN: 35852  Section 010  LAB  R 800 - 950

Instructor(s): Matthew Johnson

Analysis of linear circuits. Circuit laws and theorems. DC responses of circuits. Operational amplifier characteristics and applications. PREREQ: MTH 251/251H AND MTH 252/252H. For Pre-Engineering, Engineering, and Forestry students only. Satisfies: HC Elective
ENGR 212H     Dynamics
CRN: 37231   Section 001   LEC   MWF 900 - 950   3 HC Credit(s)
Instructor(s): Ravi Balasubramanian

Analysis of forces induced in structures and machines by various types of loading. PREREQ: ENGR 211/211H AND PH 211/211H. For Pre-Engineering, Engineering, Pre-Forestry, and Forestry students only. Satisfies: HC Elective

ENGR 363H     Energy Matters
CRN: 39732   Section 001   LEC   TR 800 - 920   3 HC Credit(s)
Instructor(s): Jack Higginbotham

This course establishes a basic energy vocabulary, applies the fundamental concepts of identifying energy use and determining efficiency, and studies the implications of energy decisions in the context of traditional, alternative, and sustainable energy resources. MTH 112 or higher recommended. Satisfies: HC Bacc Core - Science, Technology and Society

ENGR 391H     Engineering Economics and Project Management
CRN: 39767   Section 001   LEC   TR 1400 - 1520   3 HC Credit(s)
Instructor(s): Ean Ng

The traditional roles engineers and scientists are changing rapidly to roles that require solid management and technical skills. This course explores the transition from engineer and/or scientist to manager, through two fundamental engineering and technology management skills: project management and engineering economic analysis. The combination of project management and engineering economic analysis will provide students a glimpse into the life cycle of engineering/technology projects and the management/decision making behind such projects. For Engineering and Pre-Engineering majors only. Satisfies: HC Elective

H 100H     Introduction to Public Health
CRN: 35853   Section 001   LEC   TR 1000 - 1150   4 HC Credit(s)
Instructor(s): Viktor Bovbjerg

This survey course covers the basic elements of public health and application of public health action, along with related complex ethical and political issues. Topics range from infectious disease outbreaks and control, to the role of diet and physical activity in chronic disease, to the intersection of emergency services and preparedness with public health. The Honors College section focuses on experiential and tailored learning: several sessions will be in the field–at work sites, businesses, public health agencies, and natural environments. A major element of the course is a student-directed exploration of a public health topic of interest to each student. Course Fee $9.00. Satisfies: HC Elective
HC 199  Honors Writing  3 HC Credit(s)

CRN: 32856  Section 001  LEC  MWF 1000 - 1050

OR

CRN: 31165  Section 002  LEC  TR 800 - 920

OR

CRN: 34142  Section 003  LEC  TR 1000 - 1120

Instructor(s): Eric Hill

Becoming a critical reader and thinker promotes clear writing and verbal communication. You will hone your skills in a discussion/debate format, along with frequent in-class writing assignments and presentations. You will also further develop your abilities to be a critical reader. We will be examining texts from many disciplines and on a variety of topics; you will also bring in examples for discussion. The research paper, which includes both formal documents and informal writing, will focus on an ethical/controversial issue or current research within your discipline; this will include field and library research. Satisfies: HC Bacc Core - Writing II

HC 299  Building Homes & Hope: International Service Learning  1 HC Credit(s)

CRN: 35312  Section 001  SEM  R 1500 - 1650

Class meets weeks 1-5 only

Instructor(s): David Kovac

This course series is designed to engage students in exploring the impact, perspectives, challenges, and complexities of international non-profit and service work, paying particular attention to the effects of sub-standard housing in the destination country/community of the upcoming optional Service Trip & Field Study (the optional service trip is not a part of the course, but enrolling in one of the HC 299 Building Homes and Hope courses in Fall or Winter is a prerequisite for going on the service trip). The winter course examines the impact of service work on individual, group, community, and societal structures; and the spring course highlights group development and team building. The course series is open to any student interested in learning about international service work. Class meets weeks 1-5 only. Satisfies: HC Colloquia

HC 299 / HST 299H  The History Games  2 HC Credit(s)

CRN: 38912  Section 003  LEC  MW 1000 - 1050

Instructor(s): Marisa Chappell & Amy Koehlinger

The History Games is a unique and exciting learning experience in which students immerse themselves in an historical era, role-play, and come to understand the contingency of history, the intellectual, social, and political stakes of an era, and skills of debate, persuasion, negotiation, and diplomacy. Our previous iteration of the class focused on a single game, but at the conclusion of the game students often reported that they would have enjoyed and have benefited from playing a second game during the term. This term we are organizing the class to play 2 different games that together explore moments of social and political radicalism in 20th century America. The first game focuses on competing visions of social perfection among artists and visionaries, labor radicals, and women’s suffrage activists in New York’s famed bohemian Greenwich Village in 1914. The second game is located in the tumultuous Democratic National Convention in Chicago in 1968 where, amid tear gas and riots, delegates and protesters grappled with important questions of war, equality, freedom and national stability. In the games you will have the opportunity play such historical figures as Emma Goldman, WEB DuBois, Fannie Lou Hamer, Walter Cronkite, and Hunter S, Thompson. Crosslisted with HST 299H. Graded: P/N. Satisfies: HC Colloquia
Sing a Song of Science

CRN: 36541  Section 001  SEM  T 1500 - 1550  1 HC Credit(s)
Instructor(s): Kevin Ahern

This course shows students the musical side of scientific information and teaches them how to marry creative lyrics to melodies. Building on Dr. Ahern’s popular Metabolic Melodies, the one credit course combines a fun look at scientific discovery with practical skills for writing lyrics, limericks, and poetry based on scientific lingo. This course focuses on enhancing student creativity. **Graded: P/N. Satisfies: HC Colloquia**

You Said Paris?

CRN: 38914  Section 002  SEM  W 800 - 950  2 HC Credit(s)
Instructor(s): Joseph Krause

The aim of this colloquium is to identify the significant events and underlying forces that have endowed Paris with its centrality as an artistic Euro-city in the last two centuries. It will look at the social changes that produced Impressionism, Cubism, Surrealism, Negritude, Existentialism and Post-Modernism. It will examine Paris as a crossroad for the Arts and Sciences. **Satisfies: HC Colloquia**

God, Pain, and the Problem of Evil: An Introduction to C.S. Lewis

CRN: 33938  Section 003  SEM  M 1600 - 1750  2 HC Credit(s)
Instructor(s): Gary Ferngren

C. S. Lewis (1898-1963), Oxford don, novelist, literary critic, and theologian, was one of the most gifted and popular theological writers of his generation. From the point of view of orthodox Christianity, Lewis dealt in his theological and imaginative works with some of the most basic and perennial moral and religious questions. **Graded: P/N. Satisfies: HC Colloquia**

Advancing Our Knowledge of Earth and Beyond: Satellite Missions

CRN: 38915  Section 004  SEM  T 1600 - 1750  2 HC Credit(s)
Instructor(s): Nancy Squires

Space missions have always been a source of knowledge and inspiration. Satellites serve to communicate signals and allows us to access and exchange information globally. Satellites have advanced our knowledge of the earth’s weather and global warming. Furthering our knowledge of the solar system and beyond is made possible with satellites that process images and signals from space. The course will begin with an overview of the launch mission, the fundamentals of orbital mechanics, and satellite power systems and explore the design of past, present and future space missions. Missions such as Voyager, New Horizons, the International Space Station and the upcoming James Webb telescope which will launch in 2018 will be discussed. Current industry and research practices of satellite mission design will be explored. **Satisfies: HC Colloquia**

Energy IQ: Energy Literacy Past, Present, and Future

CRN: 34143  Section 005  SEM  TR 1600 - 1650  2 HC Credit(s)
Instructor(s): Skip Rochefort

We will take both a qualitative and quantitative look at energy resources and uses in the United States. We will consider how energy is generated or obtained and consumed in the US. We will also explore the global implications of energy use and consumption. We will examine predominant and emerging technologies on both the resource and consumption sides. We will also examine the role of ethics, values, and public policy in influencing choices regarding energy use. Students will participate in and lead discussions, give presentations, and generate a personal energy philosophy/statement. **Satisfies: HC Colloquia**
Cultural critic and theorist Hayden White wrote: “If there is an element of the historical in all poetry, there is an element of poetry in every historical account of the world.” Historian Simon Schama says similarly: “The asking of questions and the relating of narratives need not...be mutually exclusive forms of historical representation.” This course explores the ways in which both historians and novelists construct historical stories, and examines the premise that there is more than one way to tell a true story. We will inquire into how creative imagination helps us comprehend historical experience, and we will seek an understanding of historical truth that embraces both the authority of history and the empathy of literature. We will read literary classics, recent literature, and non-traditional histories that complicate our understanding of truth, fiction, and history. **Graded: P/N. Satisfies: HC Colloquia**

Master satirist Mark Twain said that “against the assault of laughter nothing can stand.” For evidence of this in our own time we look to Jon Stewart, Stephen Colbert, The Onion, and SNL, to name only a few. In fact, a recent Pew Research Center study found that a growing percentage of 18- to 29-year-old Americans cite satirical media as their primary source for political news. We will use these popular media outlets as a springboard into understanding how satire works and what makes it so effective. What knowledge is required to get the humor, and how does that multiply its effectiveness? How exactly does satire differ from its cousins, parody and sarcasm? We’ll also ask what the popularity of “fake” or satirical news sources say about American society and culture (not to mention what it might say about the “real” news). The course will provide a brief foundation in satire’s long and rich history, but focus primarily on contemporary uses. Students will complete a term project, which will be a satire of their own making. Projects will allow for maximum flexibility while requiring students to illustrate a sophisticated grasp of satire in their chosen cultural context. **Graded: P/N. Satisfies: HC Colloquia**

“What you’re doing isn’t self-defense. It’s the exploitation of another species for your own benefit. My people decided a long time ago that that was unacceptable, even in the name of scientific progress.” Captain Kathryn Janeway.

To this day, while we have the ability to clone animals (and therefore humans), the ethical and moral ramifications have tempered many scientific advances. The fictional universe of Star Trek often explores the nexus of advanced technologies and the resultant ethical considerations. This class will use episodes from the Star Trek universe, paired with real-life case studies to delve into the seen and unforeseen consequences of advanced technologies. Examples include experimental surgical techniques, genetic engineering, cloning, artificial intelligence and environmental regulations. **Satisfies: HC Colloquia**
HC 407  OSU, Women and Oral History: An Exploration of 150 Years

CRN: 38918  Section 009  SEM  T 1000 - 1150  2 HC Credit(s)

Instructor(s): Tiah Edmunson-Morton & Christoffer Petersen

Oregon State University will turn 150 years old in 2018 and this is your opportunity to study our school’s history and become part of it. This class will focus primarily on women’s experiences at OSU, exploring themes, moments and, yes, problems in OSU’s 150 years through the use of oral history as a primary point of focus. As a participant in this class, you will be asked to prepare, conduct, and make available an in-depth oral history interview with a woman who works or studies on this campus (or who once did). These interviews will then be made available to the public through a dedicated web portal that you will help to create. Taught by two archivists and experienced oral historians, the class will use multiple approaches to instruction, making use of lectures, historic images, discussion and document analysis as we explore topics related to women’s history, as well as the practice and theory of oral history. By the end of the term, you will have broadened your understanding of the OSU story while also creating a preserved scholarly resource in which you can take pride. Graded: P/N. Satisfies: HC Colloquia

HC 407  Data Driven Enchanted Objects

CRN: 38919  Section 010  SEM  T 1600 - 1750  2 HC Credit(s)

Instructor(s): Chet Udell

Arthur C Clarke famously wrote, “Any sufficiently advanced technology is indistinguishable from magic.” How have our ideas of enchanted objects inspired new technology over time? How has advancing technology transformed our notions of magic? You will explore these ideas through experiential hands-on projects using plug and play wireless sensors to build your very own enchanted objects that interact with the seemingly magical digital world around us. From Harry Potter to Hunger Games, run, watches detect when their bearer has heart trouble, and you can click your heels three times (to send an emergency call to your phone) to get out of a meeting or bad date. While technologies and the words we use to describe them may evolve, our desire to acquire objects that augment our capacities to gain knowledge, communicate, protect, and create have remained largely consistent throughout recorded history and across cultural barriers. Enchanted objects that facilitate these wishes are extant in our folklore, mythologies, epic poems, religious texts and can be found in much of our earliest recorded literature. We’ll supplement and inform our project experiences through reading and video excerpts you select to investigate a variety of magical objects and their real-world counterparts throughout history. Graded: P/N. Satisfies: HC Colloquia

HC 407  Sacred Places: Links to Ancient Astronomy

CRN: 35313  Section 011  SEM  T 1000 - 1050  1 HC Credit(s)

Instructor(s): Randall Milstein

A survey of sites, megaliths, caves, mountains, and structures considered sacred to human cultures. What do the caves of Lascaux, France; the pyramids of Giza, Egypt; and the temples of Teotihuacan, Mexico have in common? Why are Stonehenge and Calanish in Great Britain significant to Celtic culture and modern geologists and astronomers? Mecca, Rapa Nui, Angkor Wat: why are these loci for our curiosity and philosophical attention? The one thing all these sites, and many more, have in common is a link to ancient astronomical observations. This colloquium is not a survey of competing spiritual philosophies, but a discussion of what makes such sacred sites significant historically, scientifically, and culturally, especially as they relate to ancient astronomy. This class analyzes relationships among science, technology, culture, and society; identifies and applies concepts and theories of basic physical and historical sciences in conjunction with social processes; analyzes the role of culture and technological innovations in creating and shaping geographic locations into places of significant importance in human history. The class articulates a critical perspective on the convergence of social, political, and cultural needs in parallel with the creative and technological advances necessary to develop locations of spiritual significance. There will be (weather permitting) multiple opportunities for day and night viewing through telescopes atop Weniger Hall or at nearby outdoor observation points in conjunction with on-going Physics Department astronomy classes. Weather and class size permitting, optional field trips to exceptional viewing locations or to specialty facilities may be planned. Graded: P/N. Satisfies: HC Colloquia
<table>
<thead>
<tr>
<th>CRN</th>
<th>Course</th>
<th>CRN</th>
<th>Section</th>
<th>SEM</th>
<th>Time</th>
<th>Instructor(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>35314</td>
<td>Science of Science Fiction</td>
<td>38920</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>38921</td>
<td>Soundscaping</td>
<td>35854</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>38921</td>
<td>The Online Newsroom</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>35854</td>
<td>Commodities to Cafes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**HC 407 Science of Science Fiction**

Instructor(s): Randall Milstein

The good, the bad, the inventive, and the absolutely awful examples of “science” portrayed in science fiction films, television shows, comic books, and literature. Aliens, light sabers, space battles, gravity drives, warp speed, laser beams, star gates, and worm holes; what’s real, what’s a possibility, what’s speculation, and what is impossible. There is a co-dependency between science and science fiction. Many scientists and engineers acknowledge science fiction helped spark their imaginations of what might be possible in science. And science fiction authors are inspired by future science possibilities, but how do novel scientific ideas get into SciFi authors’ heads in the first place? Discussions and viewings of some of our favorite and least favorite science fiction, so we know what to look for while enjoying modern society’s best loved metaphors and mythologies. This course analyzes relationships among science, technology, popular culture, philosophy, and science fiction; identifies and applies concepts and theories of basic physical and biological, and social sciences; applies scientific methodology to demonstrate formulated conclusions based on observation, analysis, and synthesis; analyzes the role of science, technology, and philosophy in shaping science fiction in popular entertainment and literature; and articulates a critical perspective on issues involving science, technology, entertainment, philosophy, and society using evidence as support. **Graded: P/N. Satisfies: HC Colloquia**

**HC 407 Soundscaping**

Instructor(s): Thomas Strini

In this course we will spend the first five weeks listening to musical works of all kinds and developing graphic representations of them to enhance our understanding of the music. Students will present their findings and images in class and walk and talk us through their selected or assigned piece. We will also compete in rhythm and ear-training games to give us tools for the last five weeks of the class. In those concluding weeks, each student will create a piece of music, represented by a graphic score, to be performed by the entire class. The instructor will provide a variety of simple instruments for this purpose. The final class will be a performance for invited guests as we make our joyful, and often hilarious, noises. **Graded: P/N. Satisfies: HC Colloquia**

**HC 407 The Online Newsroom**

Instructor(s): Thomas Strini

In this course, students will act as editors, reporters, writers, interviewers, photographers, videographers and social media marketers for The Corvallis Review (corvallisreview.blogspot.com), an online features magazine that has published over 300 stories by OSU students and has attracted over 77,000 page views. The only prerequisites are curiosity, energy and the desire to tell good stories and get those stories in front of real readers. In addition to producing stories, students will learn the basics of social media distribution and search engine optimization, tools that draw readers to those stories. The skills learned in this class apply not only to journalism, but also to content marketing, advertising, business communications and public relations. **Course meets weeks 1-6 only. Graded: P/N. Satisfies: HC Colloquia**

**HC 407 Commodities to Cafes**

Instructor(s): James Sterns

On-farm visits, food tastings, tours of food processing and agricultural input supplier facilities, conversations with farmers, plant scientists and food marketers - all for the purpose of gaining a greater understanding of agriculture, food and you. In addition to site visits, students will have opportunities to discuss, debate, contemplate and grapple with the complexities and interdependencies of our local, regional, national and global agricultural and food systems. Includes several field trips (during scheduled class time). **Course Fee $25. Satisfies: HC Colloquia**
HC 407  Three Things Too Wonderful: Readings from the Abrahamic Religions

CRN: 39727  Section 017  SEM  M 1200 - 1250  1 HC Credit(s)

Instructor(s): Eric Hill

This course will provide students with an opportunity to become acquainted with readings from Judaism, Christianity, and Islam. The goal here is not so much to walk away with an exhaustive body of knowledge about any of the three faiths, but rather to sample enough from each so as to understand their relationship to each other. There will be several guest speakers and many opportunities to ask questions or share your own perspective on these faiths. Graded: P/N. Satisfies: HC Colloquia

HC 407  Translations

CRN: 38923  Section 018  SEM  TR 1200 - 1250  2 HC Credit(s)

Instructor(s): Eric Hill

This course will examine the various processes of translation, literally and figuratively. We perform acts of translation whenever we read, write, listen, or speak. Translation is not just restricted to deciphering a foreign language; it also applies to understanding jargon, colloquialisms, slang, euphemism, idiomatic expressions, gestures, and images, and more. Students will look at how we use and think (or sometimes how we don’t think) about translating various forms of communication. We will begin with some fundamental concepts that will include etymology, grammar, dialect versus language, and some historical background of the evolution and commonality of languages. Since we will be looking at the concept of translation in this broad sense, students need not necessarily speak a language other than English to take this class. In fact, we will also be discussing the various Englishes we all speak. Students will be asked to critically examine examples of translation and writings about translation. They will write about and present examples of how language works in a variety of contexts. Graded: P/N. Satisfies: HC Colloquia

HC 407  American Religions and American Freedom

CRN: 38115  Section 019  SEM  MW 1000 - 1050  2 HC Credit(s)

Instructor(s): Elizabeth Barstow

During the summer of 2016, France struggled with whether or not to allow women to wear full-coverage burqinis while visiting public beaches. While some cities banned the attire—saying that the clothing encroached upon the secular nature of a public space—the country’s highest court said that the bans were a violation of Muslim women’s personal freedom. While the burqini has not (yet!) been a subject of major debate in the United States, myriad other religious practices issues have received similar attention in the United States. In this class, then, we will study the delicate balance that the United States seeks to ensure between the protection of religious expression and the protection of the public good. In thinking about this question, we will need to consider what Americans have historically meant by the term “religion,” and we will also have to consider what the American public—as well as the higher courts—have to say about the limits of personal freedoms. We will explore these tensions by looking at issues of attire, diet, the use of illicit substances, marriage, sound, public transportation, and medical treatment. To better understand these issues, we will look at five groups of people who practice religions that have historically been outside of the religious mainstream in the United States: the Latter Day Saints (Mormons), Haitian Vodou practitioners, ultra-Orthodox Jews, Muslims, and Hmong immigrants. For assessment, you will take regular reading quizzes, take turns preparing reading questions, and prepare a 15-minute presentation for the class. Graded: P/N. Satisfies: HC Colloquia
HC 407  The News Junkie's Handbook

Instructor(s): Jonathan Katz

Intended for all current or prospective news junkies, this colloquium is devoted to news literacy. It offers students an opportunity both to discuss current events and deconstruct the presentation of news in the evolving media climate of the 21st century. Topics we'll consider include challenges to print media and network news, the role of the internet, the rise of citizen reporting, and the phenomenon of fake news. Through excerpts from film, we'll also consider how journalism and reporting the news has been represented in the public eye. The ultimate question we'll address in this class is epistemological: How can you believe what you read and hear? **Graded: P/N. Satisfies: HC Colloquia**

HC 407  Mental Disability and Wellbeing: Emerging Dilemmas

Instructor(s): Ray Tricker

This course will provided students with opportunities to study the relationships that have evolved between the pharmaceutical industry, the medical profession in psychiatry, the National Alliance for Mental Illness (NAMI), the National Institutes for Mental Health (NIMH), and the mentally disabled, over the past decades, since the advent of deinstitutionalization in the United States. Important questions need to be asked regarding the significant rise in prevalence of mental disorders such as depression, bipolar disorder, anxiety disorders, ADHD, and the diagnosis of mental disorders in the young. Is the significant increase in increased prevalence of mental disorders a result of improved diagnosis and improvements as described in the DSM V, or are other important contributing factors/issues that being disregarded, that have contributed to epidemic rises in mental illness? Furthermore, evidence of this increase is reflected in significant increase in SSI and SSDI claims; sources that underscore the rise in diagnosed mental disorders in the United States. **Graded: P/N. Satisfies: HC Colloquia**

HC 407  Last Year Experience

Instructor(s): Don Johnson

The Last Year Experience is intended to provide you with skills and knowledge that will enhance your level of success after college. The class follows two parallel themes: What do I need to know as I prepare for life after college, and what do I need to know about myself as I prepare to flourish in this world? Areas investigated will be: Career – The search process, interviewing, resumes, negotiation and entering the career world; Alternatives to the first year out of college; Personal Finance, college loan repayment, investing and giving back; Identity – Defining self and skills; Creating a digital portfolio; Conversations with OSU Alumni. **Graded: P/N. Satisfies: HC Colloquia**
**HC 407  Publishing Underground: A History of Publishing and Radical Reform**

**Instructor(s): Kelly McElroy & Korey Jackson**

From punk counterculture and zines to #blacklivesmatter and Twitter, anti-lynching activism and pamphleteering in the U.S. to Soviet era dissident literature--how have activists made their voices heard through specific kinds of publishing? And how have their strategies created new types of publications, even entirely new genres? This course explores different modes of publishing the voices of historical and contemporary social reform and the technologies that enable them (moveable type and the printing press, engraving and screen printing, xerography/photocopying, desktop printers, and web-based platforms). Each week we will take on a particular publication coming out of a particular social movement, discovering just how the politics of activism are informed by (and themselves inform) a wide variety of publication techniques and technologies. We will explore not only the use of various publishing formats but also how institutions of power have reacted to their use, and how such publications have been censured or co-opted. We will also be looking at how certain publishing formats privilege specific kinds of literacy and literate populations. The course covers a lot of territory--both geographical and chronological--but our focus will be less on broad historical analysis and more on what each publishing format/technology can tell us about its particular context. There will also be ample opportunity for students to try their hands at creating their own publications using the technologies discussed in class. At the end of the term students will have the chance to create a final project using one of the publishing methods from class, addressing a social movement or social justice issue they are passionate about. **Graded: P/N. Satisfies: HC Colloquia**

---

**HC 408  Workshop THESIS: LEARN (Stage 2)**

**Instructor(s): Leanna Dillon, Indira Rajagopal & Kevin Ahern**

In this course you will learn to lay the groundwork for a successful thesis experience. We will focus on the value of the thesis, what it takes to successfully complete a thesis (e.g. identify a mentor, identify a topic, level of effort required, etc.), and we’ll hear from students and faculty with experience in the thesis process. You will complete all of the tasks related to stage 2 of the TheSIS process by: 1) Summarizing an interview/conversation with a faculty member who could serve as a mentor, 2) Summarizing an interview/conversation with an Honors student currently working on their thesis, and 3) Exploring a series of resources and opportunities available to successfully complete the thesis. The Undertake module of the TheSIS is then designed to move students through the steps required to complete a signed thesis proposal and pose some additional questions relevant to this stage of their experience. Course will be team taught. **Meets weeks 2, 4, and 8 only. PREREQ: Prior completion of TheSIS stages: START as outlined at honors.oregonstate.edu/thesis. Graded: P/N. Satisfies: HC Thesis/Research/Projects**

---

**HC 408  Workshop THESIS: UNDERTAKE (Stage 3)**

**Instructor(s): Rebekah Lancelin & Kathy Mullet**

This course will guide students through the third step of the Thesis Success in Stages (TheSIS) process, UNDERTAKE. We will cover the process of developing a thesis topic, finding a thesis mentor, creating a thesis statement, writing a thesis proposal, and developing a research plan. The course will require participants to turn in a completed thesis proposal signed by a thesis mentor, the end goal of the UNDERTAKE stage and a required component of the thesis process in the Honors College. **Meets weeks 3 and 7 only. PREREQS: Prior completion of TheSIS stages: START and LEARN as outlined at honors.oregonstate.edu/thesis. Graded: P/N. Satisfies: HC Thesis/Research/Projects**
### HC 408 Workshop THESIS: GRADUATE (Stage 4)

**CRN:** 36180  |  **Section:** 003  |  **WS**  |  **F 1400 – 1550**  |  **1 HC Credit(s)**

**Instructor(s):** Ben Mason

This course will guide students through the final stage of the Thesis Success in Stages (TheSIS) process, GRADUATE. The goals of Thesis: GRADUATE are the completion of a thesis draft, the preparation for the thesis defense and the design of a thesis poster. Students need to have completed their research and be prepared to begin writing the thesis draft. This course meets just three times throughout the term. **Meets weeks 2, 4, and 6 only.** PREREQS: Prior completion of TheSIS stages - START, LEARN, and UNDERTAKE as outlined at honors.oregonstate.edu/thesis. **Graded: P/N. Satisfies: HC Thesis/Research/Projects**

### HC 409 Conversants

**CRN:** 31382  |  **Section:** 005  |  **PRAC**  |  **1 HC Credit(s)**

**Instructor(s):** Leanna Dillon

The INTO OSU Cultural Ambassador Conversant Program provides an opportunity for honors students to earn credit while participating in a mutual cultural exchange. Participating honors students commit to meeting on average one hour per week with their international partner, keep a log of the times and places they met and the topics discussed, and complete a 2 page reflections paper due at the end of the term. Program information including the application process, is available at http://oregonstate.edu/international/cultural-ambassador. Students must meet with a HC advisor to complete a Learning Agreement. Applications must be submitted online no later than the end of week 1. **Graded: P/N. Satisfies: HC Elective**

### HC 409 Civic Engagement

**CRN:** 35488  |  **Section:** 007  |  **PRAC**  |  **1 HC Credit(s)**

**Instructor(s):** Leanna Dillon

The Center for Civic Engagement provides an opportunity for honors students to earn credit while participating in an ongoing community engagement project within the local community. Participating honors students commit to serving on average 2-3 hours per week within their project site, keep track of their service hours, and complete a 2 page reflection paper due at the end of the term. Additional information, including placement opportunities, is available at: http://oregonstate.edu/cce/ongoing. Students must meet with a HC advisor to complete a Learning Agreement and a CCE staff member to discuss placement opportunities. Placement must take place prior to the start of the term. **Graded: P/N. Satisfies: HC Elective**
This course is a dynamic introduction to the major events and struggles of the past century of United States history. Drawing on historians’ analyses, documentary films, and primary sources such as political speeches, government reports, oral history testimony, and popular music, students will explore crucial events, debates, and transformations of the past century: the transformation from a producer to a consumer culture; the rise of a centralized, bureaucratic state; the emergence of the United States as a world power; and the transformation from exclusive notions of democratic citizenship to a theoretically more inclusive society. Changing and contested contours of freedom, citizenship, national identity, and global mission are the main themes. Class sessions will include interactive lectures to draw out and supplement the major themes and events covered in the reading; collective analysis of written, visual, aural, and video sources; and both small-group and collective discussion and debate centered on assigned primary source reading. Along the way, we will investigate the process of doing history. How do historians evaluate historical evidence? How do they develop interpretations of the past? By practicing historical analysis in class discussion and debate and in written assignments, students will gain perspectives that are crucial to informed and engaged community and global citizenship – an appreciation of the past as contingent, a deep understanding of change over time, the ability to view the world from various and often unfamiliar perspectives, and crucial historical context for the world they live in today (“how we got here”). In addition, students will develop important general skills: reading carefully and efficiently, weighing evidence critically, and writing clearly and persuasively. Satisfies: HC Bacc Core - Difference, Power, and Discrimination; Western Culture

HST 299H / HC 299  The History Games
CRN: 38913  Section 001  LEC  MW 1000 - 1050  2 HC Credit(s)
Instructor(s): Marisa Chappell & Amy Koehlinger
Crosslisted with HC 299. See HC 299 Section 003 for course description. Graded: P/N. Satisfies: HC Colloquia

MB 299H  Microbes in the Media
CRN: 36543  Section 001  LEC  R 1500 - 1550  1 HC Credit(s)
Instructor(s): Linda Bruslind
This course offers an in-depth look at how microbes (bacteria, viruses, fungi, etc) are covered by various types of media and the impact on public perception. What type of information is the public getting and in what context? How has it changed over time and with different types of media? Satisfies: HC Colloquia

ME 317H  Intermediate Dynamics
CRN: 35315  Section 001  LEC  MW 1600 - 1750  4 HC Credit(s)
Instructor(s): Ross Hatton
Continuation of the study of kinematics and kinetics of particles and rigid bodies, with applications to mechanical systems of current interest to engineers. PREREQS: ENGR 212/212H AND MTH 256/256H. For Manufacturing, Mechanical, and Industrial Engineering majors only. Must be enrolled in pro-school in the College of Engineering. Satisfies: HC Elective
ME 383H  Mechanical Component Design
CRN: 38926  Section 001  LEC  TR 830 - 950

AND

CRN: 38927  Section 010  LAB  W 1000 - 1150  1 HC Credit(s)
Instructor(s): Matt Campbell

Failure analysis and design of machine components. 1 out of the 4 OSU credits earned counts toward Honors College requirements. PREREQS: ME 316 AND ME 250. For Manufacturing, Mechanical, and Industrial Engineering majors only. Must be enrolled in the pro-school in the College of Engineering. Satisfies: HC Elective

MTH 252H  Integral Calculus  4 HC Credit(s)
CRN: 32469  Section 001  LEC  MWF 1000 - 1120  Bill Bogley

OR

CRN: 36388  Section 002  LEC  MF 1300 - 1350 & W 1200 - 1350  Filix Maisch

OR

CRN: 38244  Section 003  LEC  M 1400 - 1550 & WF 1400 - 1450  Hoe Woon Kim

The integral is the second big idea in calculus. In the same way that the derivative measures rate of change, the integral measures net change. Applications in physics, engineering and geometry are numerous. PREREQ: MTH 251/251H. Course Fee $10. Satisfies: HC Elective

MTH 254H  Vector Calculus I  4 HC Credit(s)
CRN: 34144  Section 001  LEC  MW 1400-1450 & F 1400-1550  Ren Guo

Instructor(s): Ren Guo


MTH 255H  Vector Calculus II  4 HC Credit(s)
CRN: 33940  Section 001  LEC  MW 1000 - 1050 & F 1000 - 1150  Patrick De Leenheer

Instructor(s): Patrick De Leenheer

Introduction to vector analysis: line integrals and work, conservative fields, surface integrals and flux, divergence, curl, and the theorems of Gauss and Stokes. Emphasis on geometric intuition, not just computation. Especially suitable for those with an interest in physics and engineering, as well as mathematics. PREREQ: MTH 254/254H. Course Fee $10. Satisfies: HC Elective
### MTH 256H  
Applied Differential Equations

<table>
<thead>
<tr>
<th>CRN</th>
<th>Section</th>
<th>Type</th>
<th>Time</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>32470</td>
<td>001</td>
<td>LEC</td>
<td>MWF 1300 - 1350</td>
<td>Nathan Gibson</td>
</tr>
<tr>
<td>36190</td>
<td>002</td>
<td>REC</td>
<td>W 1200 - 1250</td>
<td>Nathan Gibson</td>
</tr>
<tr>
<td>37240</td>
<td>003</td>
<td>LEC</td>
<td>MWF 1400 - 1450</td>
<td>Juan Restrepo</td>
</tr>
<tr>
<td>38295</td>
<td>004</td>
<td>REC</td>
<td>W 1500 - 1550</td>
<td>Juan Restrepo</td>
</tr>
</tbody>
</table>

First order linear and nonlinear equations, and second order and higher order linear equations, Laplace transform, and applications appropriate for science and engineering. **PREREQ: MTH 254/254H. Satisfies: HC Elective**

### MTH 306H  
Matrix and Power Series Methods

<table>
<thead>
<tr>
<th>CRN</th>
<th>Section</th>
<th>Type</th>
<th>Time</th>
<th>Instructor(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>32497</td>
<td>001</td>
<td>LEC</td>
<td>MWF 1000 - 1120</td>
<td>Radu Dascaliuc</td>
</tr>
</tbody>
</table>

Instructor(s): Radu Dascaliuc

This class will move at a fast pace from day one. We plan to cover most of the textbook. Topics will include introduction to matrix algebra, determinants, systematic solution to linear systems, and eigenvalue problems. Convergence and divergence of series with emphasis on power series, Taylor series expansions, convergence tests for power series, and error estimates for truncated series used in practical approximations. **PREREQ: MTH 252/252H. MTH 254/254H recommended. Satisfies: HC Elective**

### PH 222H  
Recitation for Physics 212

<table>
<thead>
<tr>
<th>CRN</th>
<th>Section</th>
<th>Type</th>
<th>Time</th>
<th>Instructor(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>33158</td>
<td>001</td>
<td>REC</td>
<td>T 1100 - 1150</td>
<td>David McIntyre</td>
</tr>
</tbody>
</table>

Instructor(s): David McIntyre

Honors recitation reserved for HC students enrolled in lecture/lab section of PH 212. One-hour weekly session for the development of problem-solving skills in calculus-based general physics. **COREQ: PH 212. Graded P/N. Satisfies: HC Bacc Core - Physical Sciences**

### PH 223H  
Recitation for Physics 213

<table>
<thead>
<tr>
<th>CRN</th>
<th>Section</th>
<th>Type</th>
<th>Time</th>
<th>Instructor(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>33157</td>
<td>001</td>
<td>REC</td>
<td>R 1100 - 1150</td>
<td>David Roundy</td>
</tr>
</tbody>
</table>

Instructor(s): David Roundy

Honors recitation reserved for HC students enrolled in lecture/lab section of PH 213. One-hour weekly session for the development of problem-solving skills in calculus-based general physics. **COREQ: PH 213. Graded P/N. Satisfies: HC Bacc Core - Physical Sciences**
PH 407H  Weird World of Quantum Mechanics
CRN: 36544  Section 001  SEM  F 1400 - 1450  1 HC Credit(s)
Instructor(s): Albert Stetz

This is a course on quantum mechanics designed for students who have never had and may never have a regular course in quantum mechanics with the Physics Department. The treatment is mostly qualitative with a minimum of mathematics. The emphasis is on phenomena that are "weird," in the sense of being wildly at odds with common sense. One example out of many is the famous Schrodinger's cat. The rules of quantum mechanics seem to imply that you can kill the cat by looking at it. These things have fascinating philosophical implications which we will discuss as the course proceeds.
Satisfies: HC Colloquia

PHL 440H  Environmental Ethics
CRN: 38930  Section 001  LEC  TR 1400 - 1520  3 HC Credit(s)
Instructor(s): Allen Thompson

We live on the cusp of unprecedented environmental changes driven by human activity. Global climate change, ocean acidification, mass species extinctions, land use and fragmentation, invasive species, and other issues confront humanity and our responses to such problems will likely have consequences for the basic conditions of life on the planet, including the well being of future human generations, for millennia. The possibility of tragic outcomes is well established across earth, atmospheric, oceanic, and life sciences but what will actually come to pass depends on what present generations of human beings decide to do. Human beings are causally responsible for this situation but how might we also be morally responsible, collectively and individually? Exploring such questions is the domain of environmental ethics, a philosophical enterprise focused on how to think about such issues as the value of nature (human and non-human) and how we should be guided by such values, obligations to future generations, environmental justice, sustainability, and stewardship. Students in this class will work together though essays newly commissioned by the instructor for the recently published Oxford Handbook of Environmental Ethics (2017), of which he is the co-editor and one of the contributors. Satisfies: HC Bacc Core - Contemporary Global Issues

PHL/REL 160H  Quests for Meaning: World Religions
CRN: 37241  Section 001  LEC  TR 1200 - 1340  4 HC Credit(s)
Instructor(s): Elizabeth Barstow

A survey and analysis of the search for meaning and life fulfillment represented in major religious traditions of the world, such as Hinduism, Buddhism, Taoism, Zen, Confucianism, Judaism, Christianity, and Islam. Crosslisted with REL 160H.
Satisfies: HC Bacc Core - Cultural Diversity

PHL/REL 444H  Biomedical Ethics
CRN: 38931  Section 001  LEC  MW 1400 - 1550  4 HC Credit(s)
Instructor(s): Jonathan Kaplan

In this class, we will cover ethical principles and decision-making processes to selected problems in medicine, health care, and biotechnology. Special attention given to end-of-life choices, reproductive rights and technologies, organ transplantation, research ethics, genetic engineering, and allocating scarce resources. An interdisciplinary focus that draws on social, legal, economic, and scientific issues in ethical decision in medicine. Crosslisted with REL 444H. Satisfies: HC Bacc Core - Science, Technology and Society
This course examines the political and social origins and strategies of the US civil rights movement and the public policy consequences of the civil rights struggle, circa: 1945 to the present. In general, we examine the political and judicial battles over inequality in the justice system, education, employment, and housing ...first as racial issues.... then inquire into how gender, sexuality, disability, ethnic identity, immigration, and economic status become elements in the civil rights agenda. We specifically evaluate the public policies produced by the struggle including the Civil Rights Act of 1964, the Voting Rights Act of 1965, Open Housing laws in 1968 and the equal protection battles relating to gender equality, gay rights, economic justice and immigration. What have we accomplished in the fifty years since these landmark public policies? Where are we today? Do the current battles from the streets to the courts over marriage equality, mass incarceration, voter suppression, school failure, and economic inequality indicate a new civil rights agenda sixty years later? Does the current activism in the form of groups such as Black Lives Matter, Equality Federation, Lawyers for Equality, Dream Defenders, BYP100, HandsUp United, and Million Hoodies Movement for Justice, represent a new....a different... civil rights movement? With this in mind, our inquiry includes interviews and meetings with emerging civil rights activists. Satisfies: HC Bacc Core - Difference, Power, and Discrimination

Satisfies: HC Bacc Core - Cultural Diversity

Satisfies: HC Bacc Core - Science, Technology and Society

Satisfies: HC Bacc Core - Difference, Power, and Discrimination; Social Processes and Institutions
WGSS 360H  Men and Masculinities
CRN: 38936  Section 001  LEC  TR 830 - 950  3 HC Credit(s)
Instructor(s): Bradley Boovy
Students will become familiar with central topics in global masculinity studies, analyze texts in diverse media, develop original arguments, and engage with issues of masculinity and representation through written and creative work. **Satisfies: HC Bacc Core - Contemporary Global Issues**

WR 327H  Technical Writing
CRN: 38937  Section 001  LEC  MWF 900 - 950  3 HC Credit(s)
Instructor(s): Emily Elbom
This class will prepare you to produce instructive, informative, and persuasive documents aimed at well-defined and achievable outcomes. Technical documents are precise, concise, logically organized, and based on factual information. The purpose and target audience of each document determine the style that an author chooses, including document layout, vocabulary, sentence and paragraph structure, and visuals. To this end, this course will teach processes for analyzing writing contexts and producing effective, clean, and reader-centered documents in an efficient manner. You can expect to gather, read, and present the technical content of your field to various audiences in attractive, error-free copy, as well as to learn strategies for presenting that content orally. PREREQS: WR 121/121H. Minimum of sophomore standing required. **Satisfies: HC Bacc Core - Writing II**

WSE/DHE 415H  Renewable Materials in the Modern Age
CRN: 36538  Section 001  LEC  M 900 - 950  3 HC Credit(s)
**AND**
CRN: 36539  Section 010  LAB  M 1000 - 1150
**AND**
CRN: 36540  Section 020  STD  W 1000 - 1150
Instructor(s): S.C. Robinson & Eric Hinsch
Crosslisted with DHE 415H. See DHE 415H for course description. **Course Fee $80.00. Satisfies: HC Bacc Core - Science, Technology and Society**