ANTH 407H **PRINCIPLES OF POPULATION THEN & NOW: FROM MALTHUS TO SUSTAINABILITY** 2 UHC credits

CRN 18892	Section 001	F 1000 – 1150	STAG 233	Hall, Roberta Clinton, Richard

Thomas Malthus was one of the most influential theorists of the 19th century, a towering intellect by the age of twenty eight whose work shaped some of the central ideas of the modern era. His work on population was key to the development of evolutionary theory, and the concerns he raised about the relationship between population growth and resource scarcity remain central issues for all modern societies. This course will go beyond the familiar "Malthusian theory" and explore connections between human population dynamics and contemporary issues in evolution, ecology, and sustainable development.

Students who have taken this course say they enjoy not only the readings, which tie in directly with current issues in our society, but also appreciate the time that both professors make available for answering questions and discussing topics of interest. Readings include chapters from Malthus's famous essay *An Essay on the Principle of Population,* from E.F. Schumacher's *Small is Beautiful*, from Darwin's *Origin of Species*, and from books by contemporary scholars Paul Ehrlich and Herman Daly. *Crosslisted with PS 407H*. Satisfies **UHC Colloquia**.

BA 340H **FINANCE** 4 UHC credits

CRN 18753	Section 001	MW 1000 – 1150	STAG 237	Yang, Jimmy

Google first offered its stock to the public at $100 per share in August 2004. By November 2007, the stock was trading at $747 per share! What drives spectacular meteoric rises (or crashes) in stock prices? Discover how financial fundamentals, cash flow expectations, economic issues, market psychology and other factors impact stock prices. Assess a security's risk relative to return profile.

Understand and relate valuation fundamentals to stocks as well as bonds and capital assets. Learn the basics of financial decision-making -- including investment, financing, working capital management and financial analysis. ***Apply this knowledge to actual companies using real-time Internet data and practical case analyses.*** Explore sophisticated ways to analyze corporate investment projects utilizing Excel spreadsheet models. Polish your business communication skills for success in the workplace. Regardless of your major, you will take away valuable tools to understanding the financial management of companies—perhaps your own future company or the company where you'll work after you start your career. PREREQS: (BA 213 or BA 215 or BA 215H). This course serves as a substitute for BA 360 in the business minor. *Junior standing and ECON 201 prereqs are waived for this section.* Satisfies **UHC Elective**.

BA 407H **BUSINESS RESEARCH** 2 UHC credits

CRN 16298	Section 001	MW 1600-1650	BEXL 328	Drexler, Jack Graham, Roger

Have you ever wondered what it means to do research in Business? OSU faculty in the College of Business are dedicated to pursuing the expansion of knowledge in many diverse business related areas. In programs such as Accounting, Entrepreneurship, Finance, International Business, Marketing and more; faculty are invested in researching and applying new knowledge to business systems and practices. Honors students interested in writing their thesis in business can come and meet faculty from many of focus areas in the College of Business and learn more about Business Research. Satisfies **UHC Colloquia**.

BB 407H **SCIENTISTS IN THE PUBLIC EYE** 2 UHC credits

CRN 19003	Section 001	MW 1600-1650	STAG 233	Ahern, Kevin

This course is aimed at teaching students how to effectively employ scientific communications in their professional lives. Aimed at students who will be applying to professional schools, the course consists of weekly discussions, interview practice sessions and exercises in both thinking on their feet and writing a personal statement. Student performances will be videotaped, and the tapes will be used for analysis and enhancement of student communication skills. Student communication skills will be focused appropriately on the career interest of each student—professional schools, biotechnology industry, government agency, etc. Satisfies **UHC Colloquia**.

BB 450H **GENERAL BIOCHEMISTRY** 1 UHC credit

CRN 18895	Section 001	MWF 1200-1250	MLM 026	Ahern, Kevin
AND				
CRN 18896	Section 010	M 1300-1350	STAG 237	McFadden, Philip

Each topic in the existing course sequence (BB 450 and 451) will be covered in the regular lecture, but the Honors College version of the course will dig deeper into timely areas of biochemistry by including an Honors section meeting each week in place of the regular BB 450 recitation. Student feedback will help decide which topics to emphasize in the Honors section. Examples could include topics such as the invention of synthetic proteins and antibodies with novel capabilities, the molecular description of diseases such as Alzheimer's dementia and diabetes, or progress in solving the puzzling mechanistic relationship between exercise and muscle strength. Unlike the existing course, we will have at most 12 students enrolled, giving us a great deal of flexibility in adjusting the pace of the course to keep the presentation at the sweet spot of not-too-slow, and not-too-fast, but just right for students who are eager to learn and are willing to study. Lecture and recitation equal 4 OSU credits. This recitation satisfies 1 UHC credit. PREREQS: Organic Chemistry (CH 332 or CH 336). One year of high school chemistry and acceptable aptitude test scores. Satisfies **UHC Elective.**

BI 211H PRINCIPLES OF BIOLOGY 2 UHC credits

CRN 14800	Lecture Sec. 001	MWF 1000 – 1050	MLM 026	Harwell, Amy
OR				
CRN 14799	Lecture Sec. 002	MWF 1300 – 1350	MLM 026	Harwell, Amy

SIGN UP FOR ONE OF THE LAB/401H PAIRS BELOW

CRN 14801	Lab Section 010	T 800 – 1050	WNGR 228	Rajagopal, Indira
AND				
CRN 13375	**BI 401H -** Sec. 001	T 800 – 1050	WNGR 228	Rajagopal, Indira
OR				
CRN 16470	Lab Section 020	M 900 – 1150	WNGR 228	Van Zee, Kari
AND				
CRN 16471	**BI 401H** - Sec. 002	M 900 – 1150	WNGR 228	Van Zee, Kari

Origins of life, energy transformations, plant and animal diversity. Lecture common with non-Honors, Lab is reserved for UHC students enrolled in lecture/lab sections of BI 211. The BI 401H Additional Lab Sec. 001 is an additional credit for research done during the lab section. Lecture, Lab, and additional Lab research credit total 2 UHC credits and 5 OSU credits. Additional $29 fee. PREREQS: General Chemistry (may be taken concurrently). Satisfies **BCC, Biological Science.**

BI 314H/BI 405H **CELL AND MOLECULAR BIOLOGY** 2 UHC credit

CRN 16486	Lecture Sec. 001	MWF 1600 – 1650	WITH 109	Rajagopal, Indira
AND				
CRN 16487	Recitation Sec. 001	R 1000 – 1050	HOV 100	Rajagopal, Indira
AND				
CRN 18408	**BI 405H** - Add'l Reading and Conference credit			Rajagopal, Indira

Fundamental concepts of prokaryotic and eukaryotic cell biology. Emphasizes cell structure and function at the molecular level. This Honors recitation will focus on recent research. Students will read and discuss recent articles and write research papers on topics of special interest. Lecture common with non-Honors. Recitation is reserved for UHC students enrolled in lecture section of BI 314H. Students who elect to participate are eligible to register for an extra reading and conference credit for this course. Lecture, recitation, and reading and conference credit total 2 UHC credits and 5 OSU credits. Grades will be determined as follows: Exams (2 midterms and a final) 60%; Recitations (Reading, discussion, research paper, etc.) 40% PREREQS: (BI 211/211H) and (BI 212/212H) and (BI 213/213H) and (CH 331 or CH 334). Satisfies **UHC Elective.**

CBEE 101H **CHE, BIOE, AND ENVE ORIENTATION** 2 UHC credits

CRN 18082	Lecture Sec. 010	M 1800 – 1850	WNGR 151	Rochefort, Skip
AND				
CRN 18083	Recitation Sec. 011	F 1300 – 1450	GLSN 200	Rochefort, Skip
AND				
CRN 18084	Lab Section 012	W 1300 – 1450	GRAF 210	Rochefort, Skip

Introduction to the engineering profession in general and in particular the CHE, BIOE, and ENVE programs; development of problem-solving strategies and teamwork; analysis and presentation of experimental data, basic process calculations, and design methodologies. Lecture common with non-Honors. Recitation and Lab are reserved for UHC students enrolled in the lecture section of CBEE 101H. Additional $25 fee. Lecture, Rec and Lab total 3 OSU credits. Satisfies **UHC Elective**.

CH 224H **HONORS GENERAL CHEMISTRY** 5 UHC credits

****Choose lecture and **one** of the corresponding recitation & lab sections ****

CRN 13838	Lecture Sec. 001	MWF 1200 - 1250	WNGR 149	Evans, Glenn
AND				
CRN 13839	Rec. & Lab 010	T 1400 – 1750	WNGR 285/LPSC 219	Haak, Margie
OR				
CRN 13880	Rec. & Lab 011	R 1400 – 1750	ROG 335/LPSC 219	Haak, Margie

First course in a General Chemistry sequence for Honors College students with one year of high school chemistry. This sequence examines the characteristics of molecular and atomic behavior and the way in which these influence chemical properties and reactions. Additional $30 fee. PREREQ: One year of high school chemistry and acceptable aptitude test scores. Satisfies **BCC, Physical Science**.

CH 361H **EXPERIMENTAL CHEMISTRY I** 3 UHC credits

****Choose **one** of the corresponding lecture/lab sections ****

CRN 13840	Lecture Sec. 010	T 1300 – 1350	GBAD 409	Loeser, John
CRN 13841	Lab Section 011	T 1400 – 1650	GBAD 409	Loeser, John
OR		R 1300 – 1650		
CRN 13842	Lecture Sec. 020	W 1300 – 1350	GBAD 409	Firpo, Emile
CRN 13843	Lab Section 021	W 1400 – 1650	GBAD 409	Firpo, Emile
		F 1300 – 1650		

First term of the integrated laboratory program for chemistry majors and biochemistry/biophysics majors, combining first hand techniques in organic, physical, and analytical chemistry. This is an advanced chemistry laboratory emphasizing organic chemistry techniques, use of instrumentation and computers, along with technical report writing. Students develop critical thinking skills and learn essential technical standards of: acidification, filtration, weighing, titration, recrystallization, melting point determination, organic synthesis of water sensitive compounds, product isolation, fractional distillation, gas chromatography, and scientific data analysis using spreadsheets. Each student will keep a legal scientific laboratory notebook and receive training in proper use of chemicals, chemical fume hoods, Personal Protective Equipment (PPE), and how to determine chemical hazards using Material Safety Data Sheets (MSDS). Additional $44 fee. **No-show, drop.** PREREQ: CH 223 or CH 226H. COREQ: (MTH 251 or MTH 251H) and (PH 201 or PH 211 or PH 201H or PH 211H) and CH 334. Only Chemistry, Biochemistry and Biophysics majors/minors/options may enroll. *Contact the Chemistry department for registration*. Satisfies **UHC Elective**.

CH 461H	**EXPERIMENTAL CHEMISTRY II**			3 UHC credits
CRN 14389	Lecture Sec. 001	T 1300 – 1350	GBAD 211	Pastorek, Christine
AND				
CRN 14436	Lab Section 010	T 1400 – 1650 R 1300 – 1650	GBAD 211	Pastorek, Christine

Integrated laboratory for junior level chemistry majors and related disciplines concentrating on modern techniques in analytical chemistry. Students learn the basics of scientific instrumentation by building their own absorption and fluorescence spectrometers from electronic and optical modules. Firsthand experience is also gained using a variety of commercial instrumentation, such as diode array UV-Vis, scanning fluorimeter, HPLC, AA and ICPAES. Real samples are analyzed throughout the term, and a special project of the student's design is a final highlight. See the course web page for examples of past projects. Additional $44 fee. PREREQ: CH 362 or CH 362H. COREQ: CH 421 and CH 440. *Students can go to the CH 461 and 461H web page and fill out the online form to request an override, or contact the Chemistry department for registration*. Satisfies **UHC Elective**.

CH 464H	**EXPERIMENTAL CHEMISTRY II**			3 UHC credits
CRN 13844	Lecture Sec. 001	M 1300 – 1350	GBAD 211	Pastorek, Christine/ Fang, Chong
AND				
CRN 14390	Lab Section 011	M 1400 – 1650 W1300 – 1650	GBAD 211 GBAD 309	Pastorek, Christine/ Fang, Chong

Senior level integrated laboratory for chemistry majors and related disciplines such as biochemistry, physics, and engineering. Covers experimental techniques of analytical, organic, inorganic, and physical chemistry, with the emphasis on the latter two. Consists of three projects: Project 1 – Synthesis and Equilibrium of HCl, DCl, DBr, and HBr; Project 2 - Synthesis and Characterization of CdSe Quantum Dots; Project 3 - Ordering in Nematic Liquid Crystals. Additional $44 fee. PREREQ: CH 362 or 362H and CH 442 (or approval of instructor). CH 461 or CH 324 is recommended. *Contact the Chemistry department for registration*. Satisfies **BCC, WIC.**

COMM 218H	**INTERPERSONAL COMMUNICATION**			3 UHC credits
CRN 16107	Section 001	MW 1400-1520	HOV 202	Bowker, Judy

Introduction to dyadic and relational communication. Overview of current research in such areas as verbal and nonverbal messages, self-concept and perception, culture and gender stereotypes and styles, relational development and dissolution and conflict management. Satisfies **BCC, WR III**.

CS 407	**THE EVOLUTION OF COMPUTING & ITS IMPACT ON HISTORY**			2 UHC credits
CRN 14390	Section 001	MW 0900-0950	STAG 237	Wagstaff, Kiri/ Bose, Bella

This course covers the origins and evolution of computing, beginning with early manual computation and going through today (when we even have computers on Mars!). It follows the series of innovations and discoveries that led to the modern computer, the Internet, the Web, and new computing devices such as tablet computers and smart phones. Along the way we will meet several luminaries of the field, including Charles Babbage, Ada Lovelace, Alan Turing, Claude Shannon, Grace Hopper, John von Neumann, and others. We will discuss the role of computers in issues such as privacy, communication, job automation, warfare, artificial intelligence, and more. We will explore these issues with classroom activities such as mock debates, historical figure impersonation, and alternate history "what if" exercises. Assignments will include investigating other connections between computers and historical events, creative writing, building (or simulating) replicas of devices such as the Enigma machine, and speculating about what the future of computing may hold. This course will be taught by Dr. Kiri Wagstaff, Senior Researcher at the NASA Jet Propulsion Laboratory, California Institute of Technology, http://www.wkiri.com/. *Cross listed with HC 407H sec. 006*. Satisfies **UHC Colloquia**.

ENGR 407H **EXPERIENCING ENGINEERING RESEARCH** 1 UHC credit

CRN 19107 Section 001 T 1600-1650 STAG 237 Batten, Belinda

The College of Engineering seeks to encourage faculty/student collaboration in research and to engage students in the study of issues related to engineering. ENGR 407H supports College of Engineering Honors College students by providing exposure to research faculty and to research projects in the College of Engineering. Therefore, students should view this course as an opportunity to form relationships with research faculty and to develop research ideas for their Honors College thesis. ENGR 407H will be operated in a seminar format. College of Engineering researchers will present their research and encourage discussion with students. The primary learning outcomes of this course relate to the demonstration of knowledge about engineering research. Specifically, students will be able to identify current issues relevant to engineering research topics, describe a variety of research methodologies in engineering that are appropriate to a particular topic, and be able to design a research study in engineering. Satisfies **UHC Colloquia.**

ENVE 407H **WATER: POLICY, TECHNOLOGY AND CULTURE IN LATIN AMERICA** 2 UHC credits

CRN 19004 Section 001 F 1300-1450 STAG 237 Kelly, Christine

This course focuses on water and wastewater policy, technologies and culture in Latin America from colonial times to the present. Students will read articles, watch video and participate in discussions related to the impact of technology, privatization, gender and political systems on water distribution, use, and sanitation. The topics include a brief history and broad view of water policy in Latin America, water's influence on culture, ancient water systems, water services privatization and the public response, the relationship between water and gender, and some innovative approaches to water scarcity.

Students will also design a project to increase public awareness of water issues. For example, students brought a vending machine to the campus quad, labeled the machine with water facts and statistics, and offered "dirty water" to the public in exchange for donations to the WHO water program for children. Satisfies **UHC Colloquia.**

H 399H **DRUGS, SOCIETY & HUMAN BEHAVIOR** 3 UHC credits

CRN 17529 Section 001 TR 1200-1320 STAG 237 Tricker, Raymond

This course provides students with opportunities to examine the complexities surrounding the use and abuse of drugs in the United States today. Course content will include discussion of the health and social effects of the use and misuse of alcohol, tobacco, stimulant and depressant drugs, medications, hallucinogens, marijuana and other illegal drugs; and the public health aspects of using/abusing these drugs. Through the selection of an applied assignment, students will be able to explore the phenomenon of addictive behavior, in addition to formulating a personal philosophy related to drug use. The challenges inherent in trying to prevent substance abuse will be addressed, with particular regard to the multi-tiered influences on decisions to abuse drugs e.g. the physical and psychological environment, socio-economic status, poverty, minority status and lack of opportunity, and national policy to name a few. Satisfies **UHC Elective.**

HC 199 **HONORS WRITING FOR SCIENCE** 3 UHC credits

CRN 11869	Section 001	MW 0800 - 0920	STAG 233	Hill, Eric
OR				
CRN 18180	Section 003	MW 1000-1120	STAG 233	

This course is designed to help you develop strategies and skills to communicate scientific research and information. In this class you will assess the various modes of written communication, practicing them through in-class exercises and formal assignments. You will address key components of scientific and technical communication:

- Working collaboratively,
- Connecting with specific and multiple audiences,
- Maintaining an ethical stance,
- Doing research,
- Evaluating and reporting information,
- Writing in a variety of forms,
- Critically analyzing articles in scientific fields,
- Preparing an oral presentation and final research project.

Through individual and collaborative writing assignments, you will develop a strategy for effective written and oral communication. *Required for Honors Scholar track*. Satisfies **BCC, WR II *AND* equivalent to WR 327 for HHS majors.**

HC 199 **HONORS WRITING -MULTIDISCIPLINARY** 3 UHC credits

CRN 11870	Section 001	TR 0800-0920	STAG 233	Hill, Eric
CRN 19790	Section 002	MWF 1100 – 1150	HOV 100	Elbom, Gilad

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. *Required for Honors Scholar track*. **Satisfies BCC, WR II.**

HC 299 **FARSIDE ENTOMOLOGY** 2 UHC credits

CRN 14446	Section 001	W 1800 – 1950	STAG 233	Burgett, Mike

Designed to introduce you to the humanistic side of entomology by utilizing the entomological humor of Gary Larson, et alia as paradigms of human-insect interactions. Interactions between humans and insects are numerous, of variable time scales and of varying implications (for both the human and the insect), ranging from the mildly humorous to the deadly serious. The "cartoon" format normally provides an anthropomorphic view of insects. This can be an incredibly rich venue as an introduction to the more serious aspects of insects and their relevance to human activities. Satisfies **UHC Colloquia.**

HC 299 **OREGON OUTBACK TOUR** 2 UHC credits

CRN 17081	Section 003	9/21 – 9/24	TBA	Buckhouse, John

The 2011 Oregon Outback Tour will visit several seldom seen and unusual locations in Central Oregon. The “Island” (an ecological “relic” area closed to the public), the National Grasslands, and the Crooked River Gorge are on the docket. We will study geology, soils, vegetation, Native American and pioneer history---all under the backdrop of ecological management. We will be camping and hiking in rough and remote locations. Cell phone coverage will be spotty to non-existent. Meals will be prepared on-site and will consist of hearty, healthy, camp style fare. Persons with dietary constraints are advised to contact Dr. Buckhouse. The dates will be Wednesday, 10am through Saturday afternoon, the week prior to classes beginning for fall term. Individuals must be prepared for dramatic changes in weather from very cold to very warm, capable of and willing to participate in outdoor activities. Each individual will need to provide his/her own sleeping bag, backpacker-sized tent, and clothing. Satisfies **UHC Elective.**

HC 299 **ORIENTATION FOR TRANSFER STUDENTS** 1 UHC credit

CRN 17538 Section 005 R 1700-1850 STAG 106 Arp, Daniel

This course will help transfer students from other colleges and universities make a successful transition to Oregon State University. Topics will include 1) revisiting study skills required for success, 2) learning about campus resources available for students, 3) laying the groundwork for completion of the Honors Thesis, 4) understanding your role as "dual citizens" in the University Honors College and a discipline-based college, and 5) planning for life after graduation. Class meets three Thursdays, 10/20, 11/3, 11/17. Satisfies **UHC Elective.**

HC 407 **RHYTHMS OF LIFE** 2 UHC credits

CRN 18754 Section 001 M 1800 - 1950 STAG 233 Giebultowicz, Jadwiga

All living organisms display rhythms synchronized with environmental day/night cycles. The powerful nature of daily rhythms, such as wake and sleep cycle, is revealed to any student who tries to study late into the night without falling asleep! In this course, we will learn about molecular clocks, which prepare the body for upcoming activity while we are still asleep. Introduction to principles and significance of rhythms of life will help you to understand your own body and the living world around you. After general introduction, we will concentrate each week on one topic related to biological timing, for example: 1) Rhythms within us and around us; 2) Molecules that make up the clock; 3) Seasons: how do birds know where to migrate and plants when to flower? 4) Problems with the clock: cancer, dementia, depression; 5) Light pollution at night: should we worry about it? The course direction will be determined in part by the interests of the participants who can take genetic, physiological, ecological, engineering or business perspective to problems discussed. Satisfies **UHC Colloquia.**

HC 407 **UNDERSTANDING THE FINANCIAL CRISIS: AN ALTERNATIVE TO BLAME** 2 UHC credits

CRN 18756 Section 004 T 1200-1350 STAG 233 Bella, David

In a reply to the Queen of England, the Royal Society stated that the financial crisis of 2007-08 was principally a failure of the collective imagination of many bright people. Two leading financial modelers - a physicist and a mathematician - claimed, "The greatest danger is the age-old sin of idolatry". The bipartisan Financial Crisis Investigation Commission (FCIC), however, appears split along predictable partisan lines. This colloquium will seek to make some sense of all this by radically departing from established forms of explanations, particularly blame. We will clarify (model sketch) the character of contexts within which 1) normal, competent, and well-adjusted people find reason to behave in some ways rather than others and 2) disastrous outcomes emerge. Examples will be given. Then, drawing upon the FCIC report, we will apply this approach to the crisis. Our challenge: to expose matters of importance that were overlooked or not even imagined. Graded P/N. Satisfies **UHC Colloquia.**

HC 407 **WRITING ABOUT IMAGES** 2 UHC credits

CRN 18757	Section 005	R 1200-1350	STAG 233	Hill, Eric

"It's amazing how you can mistake a photograph for a house or a girlfriend." -Spalding Gray

Do you carry a photograph of your dog in your wallet? Can you describe the feelings and thoughts you experience as you flip through someone else's yearbook? Do you know *anyone* who considers him- or herself photogenic? How do you explain the rage, sadness, or laughter you feel upon seeing a picture in a magazine (e.g., a United Colors of Benneton ad, the World Trade Center towers, a mouse with a human ear growing out of its back)?

We see public images every day and react to them in various ways. We show photos of our family, friends, or our vacation pictures to others (often expecting them to respond with the same fondness for what we assume has been captured within that frame). The writer William S. Burroughs once argued that our dreams seem far less interesting to others precisely because there is no context ("no more context than a stuffed animal set on the floor of a bank"). Like the images in our dreams, photographs become contextualized by personal, historical, cultural, chronological, and other elements, all of which color our responses (sometimes in ways we are unaware of). Photographs communicate literal information, but they can also evoke complicated symbolic meanings that vary from one observer to another. These are the meanings that transcend the frame of literal reference and they can influence how we interpret what we see.

We'll be looking at photographs, writing about them (inside and outside our frames of reference), and discussing some of the various theories surrounding images and their relations to words. You'll bring in your own photographic images, either private (personal photos – please consider copies rather than originals) or public (magazines, the web, etc.), and write about these and the images that others bring in. You'll also be asked to write about images you may or may not be familiar with. Be prepared to write about, discuss, and explore your responses. Be ready to think "outside of the frame." Satisfies **UHC Colloquia.**

HC 407 **THE EVOLUTION OF COMPUTING & ITS IMPACT ON HISTORY** 2 UHC credits

CRN 19273	Section 006	MW 0900-0950	STAG 237	Wagstaff, Kiri/ Bose, Bella

This course covers the origins and evolution of computing, beginning with early manual computation and going through today (when we even have computers on Mars!). It follows the series of innovations and discoveries that led to the modern computer, the Internet, the Web, and new computing devices such as tablet computers and smart phones. Along the way we will meet several luminaries of the field, including Charles Babbage, Ada Lovelace, Alan Turing, Claude Shannon, Grace Hopper, John von Neumann, and others. We will discuss the role of computers in issues such as privacy, communication, job automation, warfare, artificial intelligence, and more. We will explore these issues with classroom activities such as mock debates, historical figure impersonation, and alternate history "what if" exercises. Assignments will include investigating other connections between computers and historical events, creative writing, building (or simulating) replicas of devices such as the Enigma machine, and speculating about what the future of computing may hold. This course will be taught by Dr. Kiri Wagstaff, Senior Researcher at the NASA Jet Propulsion Laboratory, California Institute of Technology, http://www.wkiri.com/. *Cross listed with CS 407H*. Satisfies **UHC Colloquia**.

HC 408 **TheSIS: LEARN** 1 UHC credit

CRN 17531	Section 002	W 1700-1850 **Meets Oct 19, Nov 2, 16 only** **Weeks 4, 6, 8**	KEAR 212	Arp, Daniel/Ahern, Kevin Hill, Eric/Rajagopal,Indira

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, faculty, and alumni with experience in the thesis process. TheSIS will assist you by tracking three tasks: 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, or an alum, and 3) answering a series of "nuts and bolts" questions about what it takes to successfully complete the thesis, questions that are relevant to this stage of their experience. The Undertake module of the TheSIS will then be 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. Graded P/N. Satisfies **UHC Intro to Thesis.**

LEADERSHIP LEARNING COMMUNITIES

Students may earn up to 3 credits of HC 409 to count as UHC Electives.

Registration override given after approval of signed **Learning Agreement**
Learning Agreements are available in the UHC main office

HC 409 **PRACTICUM/FORUM COORDINATOR** 1 UHC credit
CRN 12233 Section 001

Duties include: Lead student groups interested in fostering student involvement either on campus or to the local community; carry out short-term community service projects; promote and recruit UHC students to be involved in projects; establish annual events involving a wide-range of skills and interests; serve as a student advisor to an OSU student group. Graded P/N. Satisfies **UHC Elective.**

HC 409 **PRACTICUM/LEADERSHIP AND MENTORING** 1 UHC credit
CRN 12234 Section 002

This is an opportunity for students with advanced understanding to gain experience in group dynamics and management skills under the direction of a faculty member within their major. Duties vary by discipline. For example, the responsibilities may include: Assisting in course development; mentoring undergraduate students; managing student work groups; assisting students in the laboratory; proctoring exams. Graded P/N. Satisfies **UHC Elective.**

HC 409 **PRACTICUM/STUDENT LEARNING CENTER STAFF** 1 UHC credit
CRN 12235 Section 003

Duties include: Staff the Student Learning Center main desk three hours per week; oversee use of the computers, coach basic computer skills of the UHC students, answer the phone; maintain a positive learning environment; and assist the main office with basic tasks in the Student Learning Center/Computer Lab. Graded P/N. Satisfies **UHC Elective.**

HC 409 **PRACTICUM/THE CHRONICLE STAFF** 1 UHC credit
CRN 12236 Section 004

Duties include: Work with a student committee and the Program Staff, organizing, editing, printing and distributing the UHC newsletter, The Chronicle; contact and maintain business sponsors to help underwrite newsletter costs. Graded P/N. Satisfies **UHC Elective.**

HC 409 **PRACTICUM/CONVERSANTS** 1 UHC credit
CRN 12248 Section 007

The Pathways Scholar Mentor Program provides an opportunity for honors students to help INTO Pathways students practice English conversation. 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 at the end of the term. Program information and application forms are available at http://oregonstate.edu/dept/honors/pathways. Students must meet with a UHC advisor to complete a Learning Agreement. Applications must be submitted to Robert Hinderliter with INTO in Heckert Lodge, who will schedule a 20 minute appointment prior to matching with a Pathway student. Graded P/N. Satisfies **UHC Elective.**

ME 311H **INTRODUCTION TO THERMAL AND FLUID SCIENCE** 4 UHC credits

CRN 17534	Section 001	TR 1400-1550	STAG 233	Pence, Deborah

Basic concepts of fluid mechanics, thermodynamics and heat transfer are introduced. Conservation of mass, energy and momentum, and the second law of thermodynamics are covered. The honors section is much more interactive and will include designing and/or preparing learning activities for future ME 311 and future ME 311H classes. PREREQ. MTH 256/256H, ENGR 212/212H. *Crosslisted with NE 311H*. Satisfies **UHC Elective.**

ME 373H **MECHANICAL ENGINEERING METHODS** 3 UHC credits

CRN 17535	Section 001	TR 1600-1720	STAG 233	Apte, Sourabh

The mathematical formulation of problems in a number of engineering areas including dynamics, heat transfer, thermodynamics, controls and electric circuits will be presented. Since the solutions of most ordinary and partial differential equations encountered in engineering modeling cannot be solved directly by analytic methods, numerical computer solutions will be discussed. PREREQ/COREQ: Math 256/256H and an introductory computer programming course in MATLAB (ENGR 112) or C++ (CS 161). Satisfies **UHC Elective.**

MTH 251H **DIFFERENTIAL CALCULUS** 4 UHC credits

CRN 13845	Section 001	MWF 1400-1510	WNGR 285	Bogley, William

This is the first term of the calculus sequence for scientists, engineers, and others, including mathematics majors. The first two terms of the sequence, MTH 251 and MTH 252, focus on real-valued functions of a single real variable, including polynomial, rational, algebraic, trigonometric, exponential, and logarithmic functions. Differential calculus involves the study of rate of change in all its forms, including velocity, acceleration, population growth and other natural and physical phenomena. Differential calculus features the derivative, techniques of differentiation, and applications of the derivative, including optimization problems, the geometry of curves, and analysis of motion. This course emphasizes geometric reasoning not just computation. PREREQ: MTH 112. Satisfies **BCC, Mathematics**

MTH 252H **INTEGRAL CALCULUS** 4 UHC credits

CRN 18758	Section 001	MW 1100-1150 F 1100- 1250	FAIR 305 FAIR 305	Flahive, Mary

In the same way that the derivative measures rate of change, the integral measures net change. The integral has numerous applications in physics, engineering and other sciences. PREREQ: MTH 251/251H. Satisfies **UHC Elective**.

MTH 254H **VECTOR CALCULUS I** 4 UHC credits

CRN 13846	Section 001	MWRF 1000-1050	WNGR 201	Finch, David
OR				
CRN 18203	Section 002	MW 1400-1450 F 1400 – 1550	STAG 233 STAG 233	Garity, Dennis

Vectors and geometry: coordinate systems, scalar product. Real-Valued Functions of Several Variables: partial and directional derivatives, gradient, extreme values. Multiple Integrals: change of coordinates, applications. Vector valued-functions: arc length and curvature of space curves, normal and tangential components of acceleration. Additional lab activities will be provided exploring interesting applications of Calculus to various disciplines. PREREQ: MTH 252/252H. Satisfies **UHC Elective.**

MUS 102H **FILM MUSIC: FROM BOLLYWOOD TO HOLLYWOOD** 3 UHC credits

CRN 18759	Section 001	TR 1000-1120	STAG 233	Reason, Dana

Film music continues to evolve rapidly, as the technology for both creating music and film changes and progresses. The cinema is now in its second century, and audiences expect to be entertained and transported by both what they see and what they hear at the movies. This class is an opportunity to discover just how important music is in shaping a film. In this class, we examine methods for both analyzing what we hear as well as developing the ability to understand the technology and techniques used to create the music. We will trace the evolution of film music through early film to present day cinema, examining both important Hollywood films as well as less familiar Independent and International films, Bollywood and film composers. Our main focus, with not be a history of film but rather, the relationship of music and film. Additionally, we will examine sound used in animation, horror films and key relationships between directors and composers. Interested students will have the opportunity to create their own music score as their final project using garage band or other music software available on campus. Satisfies **BCC, Literature and the Arts.**

NE 311H **INTRODUCTION TO THERMAL AND FLUID SCIENCE** 4 UHC credits

CRN 17534	Section 001	TR 1400-1550	STAG 233	Pence, Deborah

Basic concepts of fluid mechanics, thermodynamics and heat transfer are introduced. Conservation of mass, energy and momentum, and the second law of thermodynamics are covered. The honors section is much more interactive and will include designing and/or preparing learning activities for future ME 311 and future ME 311H classes. PREREQ. MTH 256/256H, ENGR 212/212H. *Crosslisted with ME 311H*. Satisfies **UHC Elective.**

OC 407H **ASTROBIOLOGY** 2 UHC credits

CRN 19380	Section 001	TR 1300-1350	WNGR 201	Colwell, Fredrick/ Fisk, Martin

The question of whether life exists elsewhere in the universe is a verifiable scientific hypothesis. "Astrobiology" is an interdisciplinary course that combines aspects of astronomy, physics, chemistry, geology, and biology that are relevant to the origin and evolution of life and its possible distribution in the universe. Students will use basic scientific principles of these five fields of science to explore the limits of life in the cosmos. Classroom activities will be used to illustrate the principles. An exercise that is designed to explore and develop each classroom activity will be assigned. Readings will be assigned as background for the lectures. Exercises and readings will require 1 to 3 hours of effort outside of the classroom for each class period. Recommended background: One year of high school chemistry. Satisfies **UHC Colloquia**.

PH 221H **RECITATION FOR PHYSICS 211** 1 UHC credit

CRN 15787	Section 001	T 1100 - 1150	WNGR 304	McIntyre, David

Honors recitation reserved for UHC students enrolled in lecture/lab section of PH 211. One-hour weekly session for the development of problem-solving skills in calculus-based general physics. Lecture, Lab, and Recitation total 1 UHC credit and 5 OSU credits. COREQ: PH 211. Graded A/F. Satisfies **BCC, Physical Science**.

PH 222H **RECITATION FOR PHYSICS 212** 1 UHC credit

CRN 13847	Section 001	R 1100 - 1150	WNGR 304	Giebultowicz, Thomas

Honors recitation reserved for UHC students enrolled in lecture/lab sections of PH 212. One-hour weekly session for the development of problem-solving skills in calculus-based general physics. Lecture, Lab, and Recitation total 1 UHC credit and 5 OSU credits. COREQ: PH 212. Graded A/F. Satisfies **BCC, Physical Science.**

PH 407H **WART HOGS AND BOA CONSTRICTORS: TOPICS IN SCIENCE AND RELIGION** 2 UHC credits

CRN 17536	Section 001	TR 1400-1450	STAG 237	Stetz, Albert

Are science and religion natural enemies locked in a struggle to the death as some best sellers suggest? Richard Dawkins' *The God Delusion*, Sam Harris' *The End of Faith*, and Christopher Hitchens' *God is Not Great* assert that modern evolutionary theory and genetics refute the claims of religion in general and Christianity in particular. New Earth Creationists, on the other hand, insist that the Bible proclaims that evolution is a lie and the earth is only 6000 years old. In historian Ian Barbour's felicitous phrase, this seems like a battle between a wart hog and a boa constrictor. In the end the victor swallows the vanquished. This can't be the whole story, however. For example, most of the recent winners of the 1.5 million dollar Templeton Award (given for, "exceptional contributions to affirming life's spiritual dimension") have been well-known physicists. Many of the great scientists of the past including Galileo, Isaac Newton, and Johannes Kepler were pious believers. Once one gets past the "warfare" mindset there are many ways in which modern science can inform religion. We can ask for example if modern cosmology can justify the belief in creation ex nihilo, whether quantum indeterminacy leaves room for free will, whether physical laws are consistent with the notion of divine intervention, and whether the intelligent design hypothesis makes sense in the light of modern genetics. These questions should be approached with an understanding of what scientific inquiry can and cannot tell us and discussed in an atmosphere of mutual respect and tolerance. Satisfies **UHC Colloquia.**

PHL 160H **QUESTS FOR MEANING: WORLD RELIGIONS** 4 UHC credits

CRN 19033	Section 001	MW 1000-1150	MLM 215	Sarbacker, Stuart

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, Confucianism, Judaism, Christianity, and Islam. Satisfies **BCC, Cultural Diversity.**

PHL 207H **POLITICAL PHILOSOPHY** 4 UHC credits

CRN 19032	Section 001	MW 1200-1340	STAG 233	Orosco, Joseph

This course is an introduction to political philosophy in the Western tradition. We examine some of the classic texts of Western political theory, along with select pieces of literature, in order to explore the following questions about the foundations of our social and political life: What is democracy? What is citizenship and what obligations do citizens have toward maintaining a just democratic society? What institutional arrangements and ways of thinking threaten the stability of democracy and the presence of justice? How can ordinary people organize to preserve democracy? Students will also be required to observe contemporary forms of government at work around the OSU campus and evaluate their effectiveness in maintaining democratic values and practices. Satisfies **BCC, Western Culture.**

PS 407H **PRINCIPLES OF POPULATION THEN & NOW: FROM MALTHUS TO SUSTAINABILITY** 2 UHC credits

CRN 18897	Section 001	F 1000 – 1150	STAG 233	Hall, Roberta Clinton, Richard

Thomas Malthus was one of the most influential theorists of the 19th century, a towering intellect by the age of twenty eight whose work shaped some of the central ideas of the modern era. His work on population was key to the development of evolutionary theory, and the concerns he raised about the relationship between population growth and resource scarcity remain central issues for all modern societies. This course will go beyond the familiar "Malthusian theory" and explore connections between human population dynamics and contemporary issues in evolution, ecology, and sustainable development.

Students who have taken this course say they enjoy not only the readings, which tie in directly with current issues in our society, but also appreciate the time that both professors make available for answering questions and discussing topics of interest. Readings include chapters from Malthus's famous essay *An Essay on the Principle of Population,* from E.F. Schumacher's *Small is Beautiful*, from Darwin's *Origin of Species*, and from books by contemporary scholars Paul Ehrlich and Herman Daly. *Crosslisted with PS 407H*. Satisfies **UHC Colloquia**.

WS 280H **GLOBAL WOMEN** 3 UHC credits

CRN 18760	Section 001	T 1800 - 2050	GILK 115	Lee, Janet

In this discussion-oriented, interdisciplinary course, we will examine representations of women and gender through screening films from various genres within a global context. In particular, we will explore films produced by women and/or about women's lives and experiences in order to analyze constructions and practices of gender in a transnational, multireligious, global framework. By examining the context of various films created within particular historical and cultural contexts, we will develop and expand our understanding of the cultural productions, meanings, and intersections of race, gender, culture, class, sexual identity, and nation. Satisfies **BCC, Cultural Diversity.**