

# Fall 2023 Course Descriptions

Please review the course descriptions below. You should select your <u>top five</u> classes. The course selection survey will open <u>Wednesday</u>, <u>May 3 at 11:50 AM</u> and closes <u>Monday</u>, <u>May 8 at 8:00 AM</u>. Course assignments will be sent via UC Davis email on Wednesday, May 10. Please note that this survey is only for students who will be second-year students in Fall 2023; incoming first-year students will receive separate communications over the summer.

- These courses are restricted to honors students and can only be accessed using a Course
   Registration Number (CRN) distributed by UHP. You cannot search for them in Schedule Builder.
- Each honors student must complete three UHP courses during the 2023-2024 academic year (one per quarter). Taking a second course during Fall 2023 does not waive another quarter's UHP course requirement unless approved by UHP.
- All of the Honors courses are capped at 25 students each, except for BIS 2A, ECH 1, MAT 17A, MAT 21B, and POL 108 which are capped at 48, 24, 30, 30, and 8 respectively.
- BIS 2A-DU1 and BIS 2A-DU2 are part of a 2-section UHP lecture capped at 48 instead of 25. Each discussion section is capped at 24.
- CHI 10 is part of a large general-population lecture; however, the discussion section is taught by Professor Marquez instead of a TA and includes only UHP students.
- ECH 1 is part of a large general-population lecture; however, the lab section is taught by Professors Kuhl and Ristenpart instead of a TA and includes only UHP students.
- HMR 1 is part of a large general-population lecture; however, the discussion section is taught by Professor Watenpaugh instead of a TA and includes only UHP students.
- Honors courses must be taken for a letter grade and earn a minimum grade of C-; courses changed to P/NP grading will not count toward UHP requirements.
- All prerequisites listed in red text will not be waived for honors students. All courses with WE
  General Education credits require satisfaction of ELWR.

Note: Department course offering details--classrooms, days, and times—are subject to change. Schedule Builder provides the most accurate information to date.

# COURSE OFFERINGS TLE TERM SUBJ CRSI

TITLE TERM SUBJ CRSE SEC CREDITS
The Museum in the Age of 202310 AHI 123 0U1 4.000
Spectacle

| INSTRUCTOR(S)  | TYPE    | DAYS | TIME              | BUILD | ROOM |
|----------------|---------|------|-------------------|-------|------|
| Grigor, Talinn | Lecture | MW   | 3:10 PM - 5:00 PM | ART   | 204  |

#### **Description:**

Lecture/Discussion – 4 hour(s). The institution of the museum in the context of modernity, nationalism, (post) colonialism, and the society of spectacle. Designed to bring art objects of the Manetti Shrem

collection, global art history, and foundational critical theory together in a meaningful and experimental way. GE credit: AH.

The Honors course raises major themes related to the institution of the museum in the context of modernity, nationalism, (post)colonialism, and the society of spectacle. The course was created to be taught as the first UC Davis course in the Jan Shrem and Maria Manetti Shrem Museum of Art when it opened in November 2017 and is, therefore, designed to bring art objects of the Manetti Shrem collection, architecture of the museums, global art history, and foundational critical theory together in a meaningful and experimental way. Throughout architectural design, art historical, hands-on, and theoretical explorations, students will experience the direct ties between art objects, museum tectonics, and the ideologies of (post)modernity. The museum itself, as a work of contemporary architecture and museum practices, will be experienced and examined as a (post)colonial phenomenon.

| TITLE<br>Introduction to Archae | eology  | <b>TERM</b> 202310 | <b>SUBJ</b><br>ANT | <b>CRSE</b> 003 | <b>SEC</b> 0U1 | <b>CREDITS</b> 4.000 |  |
|---------------------------------|---------|--------------------|--------------------|-----------------|----------------|----------------------|--|
| INSTRUCTOR(S)                   | TYPE    | DAYS               | TIME               |                 | BUILD          | ROOM                 |  |
| Darwent, Christyann             | Lecture | e MW               | 10:00 AM           | l – 11:50 AM    | YOUNG          | 302                  |  |

## **Description:**

Lecture – 3 hours(s); Discussion – 1 hour(s). Development of archaeology as an anthropological study; objectives and methods of modern archaeology. GE credit: SE, SL, SS.

This course is designed to introduce the methodological and theoretical underpinnings of archaeology. Goals of archaeological research and techniques used to extract data from the archaeological record are discussed in general terms and illustrated with examples from various parts of the world. Lectures are supplemented with films and computer visuals. It is designed to supply you with a basic understanding of the methods of archaeological analysis. Discussions will relate to concepts covered during class lectures and are intended to provide supplementary information on archaeological methods with a "hands-on" focus (e.g., real examples of bone, stone, ceramic and metal artifacts).

Students are expected to leave this class with a much better understanding of what it is that archaeologists do, and how we reconstruct the past; to become a more informed viewer of such channels as Discovery and History; and to realize that culture history is a non-renewable resource to be protected, but one that can also be exploited.

#### Course Materials:

- Muckle, Robert J., and Stacey L. Camp (2022) Introducing Archaeology. University of Toronto Press. (https://www.introducingarchaeology.com/index.html). This course is available through VitalSource as an e-pub in the Bookshelf tab of Canvas.
- PowerPoint slides will be uploaded to Canvas at the end of each week as pdf files in case anyone has to miss a class. However, lectures will not be recorded and writing assignments will involve hands-on activities.
  - Any additional materials needed to complete assignments will be uploaded to Canvas.

#### Requirements/Grading:

• Bi-weekly Quizzes (40%) on lecture material and chapter readings. Quizzes will open in Canvas at noon on Thursday and must be completed by Friday at midnight (see schedule of events below). You may take the quiz at any time during that period. You will have access to your notes, but once you start the quiz you must complete it in the allotted time, so it does require you to be prepared before you

start. Quizzes will be a combination of multiple choice, true/false, and short answer. The purpose of the biweekly quizzes is to make sure you are understanding the material.

- Written Assignments (40%) on applied concepts from lecture/lab materials and chapter readings, which will allow you to apply concepts and think outside the box.
- Take Home Final Exam (20%) which allows you to stretch your mind and answer more thoughtfully about information you have learned over the quarter in long-answer style questions. The final exam will be cumulative.

#### Schedule of Events:

Week 1: Introduction to Archaeology (site tour)

Week 2: A Brief History of Archaeology

Week 3: Structure of Archaeological Inquiry

Week 4: Understanding the Archaeological Record: Site Formation and Preservation

Week 5: Archaeological Field Methods: Survey and Excavation

Week 6-7: Archaeological Laboratory Methods: Artifact Analysis

Week 8: Reconstructing Culture History: Dating Methods

Week 9: Reconstructing Ecological, Economic, Social and Ideological Aspects of Culture

Week 10: Explaining Things in the Past and Applied Archaeology

| TITLE<br>Introduction to Biology<br>Essentials to Life on Ea |                            | -                       |  | <b>CRSE</b><br>2A | SEC<br>DU1,<br>DU2 | <b>CREDITS</b> 5.000 |  |
|--|----------------------------|-------------------------|--|-------------------|--------------------|----------------------|--|
| INSTRUCTOR(S) Singer, Mitch                                  | TYPE<br>Lecture<br>DU1 Dis | <b>DAYS</b><br>MWF<br>M | TIME<br>9:00 AM - 9:50 A<br>2:10 PM - 4:00 F<br>4:10 PM - 6:00 F |                   | ER                 | ROOM<br>1132<br>2075 |  |

#### **Description:**

Lecture – 3 hour(s); Discussion – 2 hour(s). Chemistry Placement Exam score of 24+ or completion of CHE 001V with C- or better or equivalent chemistry competency recommended. Essentials of life including sources and use of energy, information storage, responsiveness to natural selection and cellularity. Origin of life and influence of living things on the chemistry of the Earth. Not open for credit to students who have completed BIS 001A with a grade of C- or better. GE credit: SE.

The honors section for BIS 2A follows the same general outline of topics as does the regular course. The primary difference is that the course is much smaller and allows for direct one on one discussions with the professor and other students. The second difference is the discussions, instead of usual discussion students will read papers and present the papers to the group. Working in pairs and with the TA and Instructor, students will give two 45-minute PowerPoint presentations and lead the class discussion on papers related to current class topics. Students will be critiqued on their presentations by both their peers and the instructor. The BIS 2A honors section offers students an opportunity to delve into more detail and relate class material to the real world. Class lectures are presented in a discussion format between all participants, and is intended to inspire independent thought, experimental design and a deeper curiosity into the universal processes of life.

\*Please note that there are 2 sections of UHP BIS 2A – all students will attend the same DU0 lecture and choose a discussion section, either DU1 or DU2.

| TITLE                              | TERM       |      | SUBJ           | CRSE |        | SEC | CREDITS |
|------------------------------------|------------|------|----------------|------|--------|-----|---------|
| Introduction to Chicana<br>Studies | a/o 20231  | 0    | CHI            | 10   |        | AU1 | 4.000   |
| INSTRUCTOR(S)                      | TYPE       | DAYS | TIME           |      | BUILD  |     | ROOM    |
| Marquez, Lorena                    | Lecture    | TR   | 12:10 PM - 1:3 | 0 PM | SCILEC |     | 123     |
|                                    | Discussion | T    | 3:10 PM - 4:00 | PM   | HART   |     | 1120    |

Lecture – 3 hour(s); Discussion – 1 hour(s). Prerequisite(s): Completion of Entry Level Writing Requirement (ELWR). Analysis of the situation of the Chicana/o (Mexican-American) people, emphasizing their history, literature, political movements, education, and related areas. GE credit: AH or SS; ACGH, DD, OL, WE.

Note: This course is a large 1.5-hour general population lecture, but Professor Lorena Marquez will be teaching the small 25-person 1-hour discussion section.

| <b>TITLE</b> Design of Coffee | <b>TERM</b> 20231 | 0    | <b>SUBJ</b><br>ECH | <b>CRSE</b> 001 |        | SEC<br>AU7 | CREDITS<br>3.000 |  |
|-------------------------------|-------------------|------|--------------------|-----------------|--------|------------|------------------|--|
| INSTRUCTOR(S)                 | TYPE              | DAYS | TIME               |                 | BUILD  |            | ROOM             |  |
| Kuhl, Tonya                   | Lecture           | M    | 2:10 PM - 3:00     | ) PM            | TLC    |            | 1020             |  |
| Ristenpart, William           | Lab/Dis           | Т    | 10:00 AM - 11      | :50 AM          | EVERSI | N          | 126              |  |

# **Description:**

Lectures – 1 hour(s); Laboratory – 2 hour(s); Project – 1 hour(s). Non-mathematical introduction to how chemical engineers think, illustrated by elucidation of the process of roasting and brewing coffee. Qualitative overview of the basic principles of engineering analysis and design. Corresponding experiments testing design choices on the sensory qualities of coffee. Not open for credit to students who have completed ECH 001Y, ECM 001, ECM 005, or ECH 005. GE credit: SE, SL, VL.

Note: This course is a large 1-hour general population lecture, but Professors Tonya Kuhl and William Ristenpart will be teaching the small 24-person 2-hour lab.

| TITLE<br>International Macroec | onomics         | <b>TERM</b> 202310 | <b>SUBJ</b><br>ECN   | <b>CRSE</b> 160B | SEC<br>0U1          | <b>CREDITS</b> 4.000 |  |
|--------------------------------|-----------------|--------------------|----------------------|------------------|---------------------|----------------------|--|
| INSTRUCTOR(S) Taylor, Alan     | TYPE<br>Lecture | <b>DAYS</b> TR     | <b>TIME</b> 12:10 PM | л – 1:30 PM      | <b>BUILD</b><br>TLC | <b>ROOM</b> 3210     |  |

#### **Description:**

Lecture – 3 hour(s); Discussion – 1 hour(s). Prerequisite(s): Completion of ECN 001A and ECN 001B (or equivalent). Macroeconomic theory of an open economy. Balance of payments adjustment mechanism, international monetary economics issues; international financial institutions and their policies.

The goal of this honors course is to leave the student with an understanding of the global macroeconomy, how it functions, the role played by different currencies and the balance of payments, and the importance of monetary and fiscal policies. The approach mixes economic theory with empirical evidence. We study international macroeconomic issues such as the trade balance, the exchange rate, national output, and inflation. We discuss key international macroeconomic variables then develop theories about how and why these variables change over time and differ across countries. The first part of the course focuses on foreign exchange markets, data, and theories of exchange rate determination in the short run and the long run. The second part of the course covers the balance of payments, including the trade balance, data, and theories of how the balance of payments is related to a country's long run economic growth and short-run economic fluctuations. The final part of the course will cover applied topics in international macroeconomics with an emphasis on policy issues. Topics include exchange rate regimes, crises, and monetary union (the euro).

| <b>TITLE</b> Science, Gender & Soci Justice | al      | <b>TERM</b> 202310 | )    | <b>SUBJ</b><br>GSW | <b>CRSE</b> 148 |       | SEC<br>0U1 | CREDITS<br>4.000 |  |
|---|---------|--------------------|------|--------------------|-----------------|-------|------------|------------------|--|
| INSTRUCTOR(S)                               | TYPE    |                    | DAYS | TIME               |                 | BUILD |            | ROOM             |  |
| Hanssmann, Christoph                        | Lecture | 9                  | TR   | 10:00 AM - 11      | :50 AM          | TLC   |            | 3211             |  |

# **Description:**

Lecture/Discussion – 4 hour(s). Critical reading and reflection on the history and practice of Western science, scientific institutions and the changing role of science in relation to inequalities of class, race, gender and sexuality, and global struggles for equality and justice. Course cannot be counted for credit if former course WMS 148 has been taken. GE credit: AH, DD.

Specifically, we will explore climate change through a feminist lens. Engaging readings from environmental scientists, industry scientists, Indigenous Feminists, Disability Justice activists, and social scientists (among others), this class will take an interdisciplinary approach to examining these complex problems and analyzing how people confront them.

Even as some of us benefit from technology, plentiful food, and travel, we also see damage caused by certain forms of scientific advance, extractive technologies, manufacturing, agriculture, and other industries that affect human and planetary health. As proponents of environmental justice have pointed out, these harmful effects are not equally shared. Climate change and economic structures have also driven trajectories of infectious illnesses. The disparate effects of the ongoing pandemic, for example, have revealed inequities in exposure to illness and access to advanced health care. Not only have these dynamics exacerbated existing health inequities, they have also led us to anticipate future pandemics associated with both climate change and globalized economies.

The class will also focus on how gender, race, and sexuality—particularly relative to questions of contagion and reproduction—are central themes in scientific, environmental, and health concerns. Looking to texts, films, popular media, art, interactive maps, and scientific publications, we will consider the varying substances, relations, and industries that affect health and the planet.

| TITLE              | TERM   | SUBJ | CRSE | SEC | CREDITS |
|--------------------|--------|------|------|-----|---------|
| Human Wrongs/Human | 202310 | HMR  | 001  | AU9 | 4.000   |
| Rights             |        |      |      |     |         |

| INSTRUCTOR(S)     | TYPE       | DAYS | TIME               | BUILD  | ROOM |
|-------------------|------------|------|--------------------|--------|------|
| Watenpaugh, Keith | Lecture    | MWF  | 11:00 – 11:50 AM   | SCRBOK | 160  |
|                   | Discussion | M    | 12:10 PM - 1:00 PM | BAINER | 1132 |

Lecture – 3 hour(s); Discussion – 1 hour(s). Prerequisite(s): Completion of Entry Level Writing Requirement (ELWR). Introduction to Human Rights and the problems they seek to address. Using key episodes of inhumanity like slavery, genocide, and racism. Examines how international movements for social justice led to the emergence of the international Human Rights system. GE credit: AH, SS, WC, WE.

Note: This course is a large 1-hour general population lecture, but Professor Watenpaugh will be teaching the small 25-person 1-hour discussion.

| TITLE<br>Mitochondrial Dysfun<br>In Schizophrenia | ction                 | <b>TERM</b> 202310  | <b>SUBJ</b><br>IST       | CRSE<br>8A | SEC<br>0U1              | <b>CREDITS</b> 4.000 |
|---|-----------------------|---------------------|--------------------------|------------|-------------------------|----------------------|
| INSTRUCTOR(S)<br>Giulivi, Cecilia<br>Fausak, Erik | <b>TYPE</b><br>Lectur | <b>DAYS</b><br>e MW | <b>TIME</b> 10:00 AM – 1 | 1:50 AM    | <b>BUILD</b><br>SHIELDS | <b>ROOM</b><br>165   |

#### **Description:**

Lecture -3 hour(s); Discussion -1 hour(s). Group study of a special topic in natural sciences and mathematics. Course varies with topic offered. Limited enrollment. May be repeated for credit. GE credit: SE, SL.

This course will provide students with an introductory research opportunity where they can hone their research skills, receive training on scientific literacy vs. science trivia, learn about evidence-based science, valuable mentoring, and contribute to the biomedical research. Here we are recruiting Honor students interested in biomedical science to address a clinically relevant issue that is of real interest to the scientific and academic communities.

| <b>TITLE</b> Indian Spices, Culture, a | and             | <b>TERM</b> 202310 |                   | SUBJ<br>IST              | CRSE<br>8B |       | SEC<br>0U1 | <b>CREDITS</b> 4.000 |  |
|--|-----------------|--------------------|-------------------|--------------------------|------------|-------|------------|----------------------|--|
| INSTRUCTOR(S)<br>Fatema, Shagufta      | TYPE<br>Lecture |                    | <b>DAYS</b><br>TR | <b>TIME</b> 12:10 PM – 2 | 2:00 PM    | BUILD |            | ROOM                 |  |

#### **Description:**

Lecture -3 hour(s); Discussion -1 hour(s). Group study of a special topic in humanities. Varies with topic offered. Limited enrollment. May be repeated for credit. GE credit: AH.

The culture of India is one of the most unique and diverse. It is cultivated from historic traditions, handicrafts, art, food, languages and more. This seminar class will explore three of the most important aspects of the Indian culture—food, spices, and vibrant colors associated with traditional customs such

as Rangoli and henna. The class will explore the value of each of these aspects and how they derive from pre-modern cultures of India. It will highlight the hidden importance of spices and herbs which are used in our day-to-day life. Indian herbs and spices are the major ingredients of cuisines, loaded with many powerful health benefits and alternative medical potential to treat common ailments. Learning the magic of spices and herbs will enhance the understanding of students and it may be helpful to those who are thinking of a career in medicine. At the time of the Covid-19 pandemic, the knowledge of spices became essential for making immunity booster drinks as well. While learning about the vibrant colors and their importance in the culture of India, students will learn about traditions such as Rangoli, an ancient form of art in which colored powder, colored rice, flowers, and other ingredients are used to decorate the entrances of the houses. Students will also learn about Indian cuisine. Students will not only learn about the use of these three features of Indian culture, they will also gain practical knowledge during the class. They will learn an ancient art and become familiar with the rich culinary culture of India. The last section of the seminar will be especially interesting, as students will learn about popular Indian cuisine, examples of which will be shared by the instructor. The instructor will be use audio-visual aids to enrich the class and enhance presentations and discussions.

| TITLE  Masterworks of Japan  Literature (in English) |                        | <b>TERM</b> 202310 |                   | <b>SUBJ</b><br>JPN         | CRSE<br>10 |                | SEC<br>0U1 | <b>CREDITS</b> 4.000 |
|--|------------------------|--------------------|-------------------|----------------------------|------------|----------------|------------|----------------------|
| INSTRUCTOR(S) Sorensen, Joseph                       | <b>TYPE</b><br>Lecture | _                  | <b>DAYS</b><br>MW | <b>TIME</b> 2:10 PM – 4:00 | ) PM       | BUILD<br>ROBBN | IS         | <b>ROOM</b><br>146   |

# **Description:**

Lecture/Discussion – 4 hour(s). Prerequisite(s): Completion of Entry Level Writing Requirement (ELWR). Introduction to Japanese literature: readings and discussion in English of important works from earliest times to the present. GE credit: AH, WC, WE.

Love between men and women, boys and girls, husbands and wives. Love between parents and children, between siblings, between gods. A mother's love, a father's love, a child's love. Idealized, romanticized, fantastic, and grotesque. Love for one's sovereign, love for one's country, love for one's self. Passionate love, love turned cold. Love as a goal, as an escape, as a means, and as an end. These are just some of the aspects of love we will explore in this course as we survey, in English translation, selected masterpieces of Japanese literature from the 7th century into the 21st. We will consider the historical and cultural context of each work, as well as the conventions of the various genres we encounter in our readings. We will read from a wide variety of genres: poetry (both ancient and modern), myths, tales, novels, plays, and short stories.

The three major goals of the course are for students 1) to learn key concepts in Japanese culture, history, and aesthetics so that you have a foundation to better appreciate the literature, 2) to broadly see the unfolding of Japanese literary history in order to appreciate the allusive and intertextual nature of Japanese literature, and 3) to learn how to fruitfully discuss the literature with fellow students through careful and critical reading and writing.

The course is organized chronologically around a central theme: depictions of love. Among the questions to be considered throughout the course are: What kinds of love and what aspects of love are depicted in literature? How are they represented? What is not represented? How does one text and the ideas about love expressed in it relate to the other texts in the course? What does it mean to be a "masterpiece" of literature?

| <b>TITLE</b> Language and the Body   | <b>TERM</b> / 20231 |                   | SUBJ<br>LIN                | <b>CRSE</b> 003 |                       | SEC<br>0U1 | <b>CREDITS</b> 4.000 |  |
|--------------------------------------|---------------------|-------------------|----------------------------|-----------------|-----------------------|------------|----------------------|--|
| INSTRUCTOR(S)<br>Ramanathan, Vaidehi | <b>TYPE</b> Lecture | <b>DAYS</b><br>TR | <b>TIME</b> 9:00 AM – 9:50 | ) AM            | <b>BUILD</b><br>WELLN | 1N         | <b>ROOM</b><br>115   |  |
|                                      | Discussion          | TW                | 12:10 PM - 1:0             | 00 PM           | OLSON                 |            | 217                  |  |

Lecture— 2 hour(s); Discussion – 2 hour(s). Open to all students regardless of major. Perspectives on the role of language in issues about bodies. Language-related disabilities. Social implications of language use in discussing body-related conditions. GE credit: OL, SS.

This course introduces you to some key concerns regarding our bodies and the role of language, in both their 'normal' functioning and in the world. Language use is at once a body-related function (being unable to speak effectively or well as in cases of autism or dementia) and a medium by which we talk about bodies (using language when talking about a body condition like diabetes or mental illnesses). It is, thus, both a part of our bodies as well as a tool by which bodies get described and negotiated. Keeping this mind, the course seeks to offer a wide spectrum of issues regarding language and bodies, while also focusing on the following themes: Language, bodies and 'normalcy;' Language and autism; Language learning and dyslexia; Language and transgender issues; Language and mental health; Language and dementia; Language and deaf studies; Language and hearing aids.

| TITLE                                | TERM   | SUBJ | CRSE | SEC | <b>CREDITS</b> |
|--------------------------------------|--------|------|------|-----|----------------|
| Calculus for Biology and<br>Medicine | 202310 | MAT  | 17A  | 0U1 | 4.000          |
|                                      |        |      |      |     |                |

| INSTRUCTOR(S) | TYPE       | DAYS | TIME                | BUILD  | ROOM |
|---------------|------------|------|---------------------|--------|------|
| TBA           | Lecture    | MWF  | 10:00 AM – 10:50 AM | BAINER | 1060 |
|               | Discussion | Т    | 7:10 PM - 8:00 PM   | WICKSN | 1020 |

#### **Description:**

Lecture—3 hour(s); Discussion—1 hour(s). Prerequisite(s): Two years of high school algebra, plane geometry, plane trigonometry, and analytical geometry, and satisfying the Mathematics Placement Requirement. Introduction to differential calculus via applications in biology and medicine. Limits, derivatives of polynomials, trigonometric, and exponential functions, graphing, applications of the derivative to biology and medicine. Not open for credit to students who have completed MAT 016B, MAT 016C, MAT 021A, MAT 021B, or MAT 021C; only 2 units of credit to students who have completed MAT 016A. GE credit: QL, SE, SL.

| TITLE    | TERM   | SUBJ | CRSE | SEC | CREDITS |
|----------|--------|------|------|-----|---------|
| Calculus | 202310 | MAT  | 21B  | 0U1 | 4.000   |

| INSTRUCTOR(S) | TYPE       | DAYS | TIME               | BUILD  | ROOM |
|---------------|------------|------|--------------------|--------|------|
| TBA           | Lecture    | MWF  | 12:10 PM – 1:00 PM | VEIMYR | 116  |
|               | Discussion | T    | 4:10 PM - 5:00 PM  | WELLMN | 229  |

Lecture—3 hour(s); Discussion—1 hour(s). Prerequisite(s): (MAT 021A C- or better or MAT 021AH C- or better) or MAT 017A B or better. Continuation of course 21A. Definition of definite integral, fundamental theorem of calculus, techniques of integration. Application to area, volume, arc length, average of a function, improper integral, surface of revolution. Only 2 units of credit to students who have completed MAT 016B, MAT 016C, MAT 017B, or MAT 017C. GE credit: QL, SE.

| <b>TITLE</b> Quechua Language and Society | d               | <b>TERM</b> 202310 | 0                 | <b>SUBJ</b><br>NAS        | CRSE<br>110A |                | SEC<br>0U1 | CREDITS<br>4.000 |  |
|---|-----------------|--------------------|-------------------|---------------------------|--------------|----------------|------------|------------------|--|
| INSTRUCTOR(S)<br>Mendoza, Zoila           | TYPE<br>Lecture | e                  | <b>DAYS</b><br>TR | <b>TIME</b> 2:10 PM – 4:0 | 0 PM         | BUILD<br>OLSON | l          | <b>ROOM</b> 267  |  |

# **Description:**

Lecture/Discussion – 4 hour(s). Quechua language and society emphasizing the practical use of language. Provides some basic Quechua communication skills and with an initial knowledge about contemporary Andean society and the status of Quechua language today. Not open to students who took NAS 107 in the fall quarter of 2007. GE credit: SS.

Quechua is the most widely spoken Native American language of the Americas. It was the official language of the largest pre-Columbian Empire in the Americas at the time of the Spanish invasion, the Inca Empire, and it is a language (with its different regional varieties) still spoken by 8 to 12 million in the Andean region of South America, mainly in Peru, Bolivia, and Ecuador. The aim is to provide the student with some basic Quechua communication skills and with an initial knowledge about contemporary Andean society and the status of Quechua language today. With these objectives in mind the students will read a selected bibliography, learn to sing Quechua waynos (the most widespread music/dance genre in the Andes), watch films, and, of course, work on the oral and written aspects of the language in class and at home. The variety of Quechua studied in the class is the one known as Quechua II spoken in the Cuzco-Qollao (Qosqo-Qollaw) area, particularly in the Cuzco region.

| TITLE The Path to Cyborgs: Introduction to Prosthe and Human Machine In |                 | 0                 | SUBJ<br>NPB                | CRSE<br>17 |                       | SEC<br>0U1 | CREDITS<br>3.000 |
|---|-----------------|-------------------|----------------------------|------------|-----------------------|------------|------------------|
| INSTRUCTOR(S) Sutter, Mitch   | TYPE<br>Lecture | <b>DAYS</b><br>MW | <b>TIME</b> 5:10 PM – 6:30 | ) PM       | <b>BUILD</b><br>OLSON |            | <b>ROOM</b> 223  |

# **Description:**

Lecture – 3 hour(s). Interface of biology and technology. Mind-controlled prosthetic limbs, artificial organs, and implantable devices. Emphasis on basic physiological functions and how they can be replaced by devices. Suitable for majors and non-majors. GE credit: SE, SL.

This course overviews how interdisciplinary scientists approach the problem of replacing body parts with artificial devices. We cover several model devices which will provide a motivation for better describing the physiological function that those devices replace. Accordingly, we approach the biology with more detail than the engineering, and the engineering more conceptually. We also emphasize ethical and societal issues raised by developing and using these devices.

The course also has a global education component. This requires one (Zoom) meeting in late summer before classes begin since Hong Kong starts their term about one month before ours. The global education component includes working with student taking a similar course at City University in Hong Kong. The global components include an ice breaker meeting where groups for global team projects are formed in the late summer. During the Fall quarter we have a global debate, an exercise where we can remotely control the movement of people's fingers across continents, and finally you will make a video with a group of combined Hong Kong and USA students.

| TITLE Introduction to Cogniti Science | ive             | <b>TERM</b> 202310 | 0                 | <b>SUBJ</b><br>PHI         | CRSE<br>10 |       | SEC<br>0U1 | CREDITS<br>4.000 |  |
|---------------------------------------|-----------------|--------------------|-------------------|----------------------------|------------|-------|------------|------------------|--|
| INSTRUCTOR(S) Dorsey, Jonathan        | TYPE<br>Lecture | e                  | <b>DAYS</b><br>TR | <b>TIME</b> 2:10 – 3:30 PM |            | BUILD |            | ROOM             |  |

#### **Description:**

Lecture/Discussion – 4 hour(s). Introduction to the interdisciplinary cognitive scientific approach to the study of mind, drawing concepts and methods from psychology, philosophy, linguistics, artificial intelligence, and other disciplines. Same course as CGS 001. GE credit: SE, SL.

This course introduces the interdisciplinary pursuit of cognitive science. See how philosophers, neuroscientists, computer scientists, linguists and others come together in the common goal of developing a science of cognition.

Part one of the course concerns the foundations of cognitive science: its historical precursors, formative studies and works that shaped what it is now, and its philosophical underpinnings. Part two concerns the dominant paradigms for modeling cognitive processes: computationalism (think: good ol' fashioned computer models) and connectionism (think: neural nets).

Basic course material is the same as the non-honors version of the course. Students will engage more deeply with the material, however, through lectures with a more discussion-based format and through self-selected research projects conducted throughout the quarter. Students will be encouraged to pursue their own interests and to explore this expansive and ever-expanding field of science.

| TITLE Health Policy and Polit | ics  | <b>TERM</b> 202310 | <b>SUBJ</b><br>POL | <b>CRSE</b> 108 | <b>SEC</b> 001 | CREDITS<br>4.000 |  |
|-------------------------------|------|--------------------|--------------------|-----------------|----------------|------------------|--|
| INSTRUCTOR(S)                 | TYPE | DAYS               | TIME               | BUILD           |                | ROOM             |  |

Kravitz, Richard Lecture F 10:00 AM – 11:50 AM OFFCAMPUS\*

MacKenzie, Scott Speaker\*\* W 11:00 AM – 11:50 AM OFFCAMPUS\*

#### **Description:**

Lecture—3 hour(s); Term Paper/Discussion—1 hour(s). Prerequisite(s): Completion of Entry Level Writing Requirement (ELWR). Theoretical rationale for governmental activity, program evaluation, PPBS, positive theories of policy making, the quantitative study of policy determinants, implementation, and proposals for improved decision making. GE credit: ACGH, QL, SS, WE.

- \* This class will be held at the UC Center Sacramento, located in downtown Sacramento. Transportation options include carpooling, YoloBus, and Amtrak.
- \*\* Attendance at the Wednesday Speaker Series is optional as these are recorded; students opting not to attend will instead watch the video and then complete the related assignments.

This course is designed specifically for three groups of students: 1) UCCS students selecting health policy and politics as their "content" focus, in lieu of POL 195; 2) UC Davis students enrolled in the combined UCCS-Quarter at Aggie Square Experience "Health Care Politics and Policy at the Seat of State Government;" and 3) students from the University Honors Program (by permission). Enrollment is limited to a maximum of 24 students, allowing for robust discussion and interaction. The guts of the course are six 2-hour sessions devoted to some of the most interesting and controversial areas in health care: pandemic response; health care coverage and reform; reproductive health; health equity; controlled substance policy; and medical innovation. Each of these sessions will generally consist of a combination of lecture (delivered by the instructors and by a varied and distinguished group of guest lecturers) and class discussion. These sessions are supplemented by a journal club; a case-based problem solving session; and a panel consisting of legislators and staff who have worked in California's health care policy trenches.

The special flavor of this course derives from two ingredients. First, the co-instructors bring complementary backgrounds and interests. As we tackle each of the six major topics, Kravitz or his clinical colleagues will present the policy context as well as perspectives gained from clinical practice. MacKenzie (or his political science colleagues) will focus on how the tools of political science can illuminate the complex interactions between political players and how they have led to both policy success and failure. Second, students in this course will represent a striking array of campuses, majors, interests, skillsets, and experiences. There are no pre-requisites, just a willingness to dive into material that makes headlines almost every day.

Aside from introducing students to key issues and conflicts in the politics of health care, this course also has two meta-objectives. First, we hope to show you how the fields of health policy studies and health services research (on the one hand) and political science (on the other) bring different but overlapping perspectives to the analysis of complex problems. Second, by examining some of the original research produced by health services researchers and by political scientists, we hope to prepare you to be more discerning consumers of data. These skills will serve you well as citizens no matter what your ultimate career objectives.

Please note that this course includes a final capstone paper and an optional supplementary methods seminar is available to interested students (POL 198, 2 units, taught Tuesdays 12:10 pm - 1:00 pm and accessible via Zoom). Weekly instructor office hours are also available to assist with the paper.

Open only to second-year or above students in the University Honors Program.

| TITLE                         | TERM   | SUBJ | CRSE | SEC | <b>CREDITS</b> |
|-------------------------------|--------|------|------|-----|----------------|
| Knowledge Discovery and Data  | 202310 | SOC  | 195  | 0U1 | 4.000          |
| Mining in the Social Sciences |        |      |      |     |                |

| INSTRUCTOR(S) | TYPE    | DAYS | TIME                | BUILD  | ROOM |
|---------------|---------|------|---------------------|--------|------|
| Shu, Xiaoling | Lecture | T    | 10:00 AM – 12:50 PM | SOCSCI | 1291 |

Seminar – 3 hour(s); Term Paper. Prerequisite(s): Exposure to introductory statistics at the high school or community college level. In-depth examination of topics in sociology. Emphasis on student research and writing. May be repeated for credit when topic differs. GE credit: SS.

This seminar provides an introduction to new developments in knowledge discovery and data mining. It provides students with state-of-the-art knowledge to keep pace with the emergent research opportunities associated with big data, statistics, and computer science, and apply these new perspectives and tools to social sciences issues. This course will focus on both classical statistical approaches and new methods of knowledge discovery and data mining. We first assess the contribution of knowledge discovery and data mining to theory innovation from an epistemological view, situating the new frontier of knowledge discovery and data mining in the philosophical and methodological traditions of scientific research and clarifying both the strengths and challenges of researching with big data. We then move on to acquire systematic information on key procedures in preparing and presenting data, selecting and assessing analytical models and developing machine learning. With each procedure, we apply basic research principles, classical statistics, and machine learning to illustrate potential pathways for data mining. I use both examples from published research and my ongoing projects to illustrate research processes in knowledge discovery and data mining in comparison to the conventional statistical approach.

The seminar provides a new appreciation of fundamental issues in the scientific research process, causality, the relationship between theory and data, the significance of the data mining approach different from statistical modeling, model assessment and validity, etc. It enables students to gain new knowledge, skills, and insights into big data, data science, computational social science, statistics, AI, machine learning, and computer science.

This course will cover several topics:

- 1) Concepts and development of data mining and knowledge and the role it plays in social science research;
- 2) Data pre-processing including privacy, security, data collection, data cleaning, missing data, data transformation, data visualization;
- 3) Model assessment that plains important methods and measures of model selection and model assessment, such as cross-validation and bootstrapping. It provides justifications as well as ways to use these methods to evaluate models;
  - 4) Unsupervised learning: clustering and association;
- 5) Supervised learning that includes generalized regression, classification and decision trees, and neural networks; and
  - 6) Exposure to topics of mining text data and network analysis.

| TITLE                  | TERM   | SUBJ | CRSE | SEC | CREDITS |
|------------------------|--------|------|------|-----|---------|
| Migrants at the Border | 202310 | SPA  | 169  | 0U1 | 4.000   |

| INSTRUCTOR(S) | TYPE    | DAYS | TIME                | BUILD  | ROOM |
|---------------|---------|------|---------------------|--------|------|
| Irwin, Robert | Lecture | TR   | 10:30 AM - 11:50 AM | ROBBNS | 146  |

Lectures – 3 hour(s); Project (Term Project). Prerequisite(s): Advanced Proficiency in Spanish. Special topics in the study of Chicanx and/or Latinx literature and culture. May be repeated up to 1 time(s) when topic differs. GE credit: AH, DD.

This special topics course in Latinx studies will review a range of issues faced by contemporary migrants, including both Mexicans who have been repatriated from the United States, and asylum seekers and other migrants in transit northward, at the US-Mexico border. The course will look at the human consequences of laws, policies, and administrative practices of migration control and border security in both Mexico and the United States from the perspectives of migrants themselves. Students will study a range of digital stories that migrants have published in the UC Davis based Humanizing Deportation archive: <a href="http://humanizandoladeportacion.ucdavis.edu/en/">http://humanizandoladeportacion.ucdavis.edu/en/</a>. In addition, students will be trained to produce digital stories, and will join the Humanizing Deportation research project, taking part in the production of several new digital stories.

Note: This course will be taught in Spanish.

| <b>TITLE</b> Style in the Essay | <b>TERM</b> 20231 | 0                 | <b>SUBJ</b><br>UWP         | CRSE<br>48 |                   | SEC<br>0U1 | CREDITS<br>4.000 |
|---------------------------------|-------------------|-------------------|----------------------------|------------|-------------------|------------|------------------|
| INSTRUCTOR(S) Miller, Gregory   | TYPE<br>Lecture   | <b>DAYS</b><br>TR | <b>TIME</b> 4:40 PM – 6:00 | PM         | <b>BUILD</b> 2103 |            | ROOM<br>SCC      |

# **Description:**

Lecture/Discussion – 4 hour(s). Prerequisite(s): Completion of Entry Level Writing Requirement (ELWR). English-language proficiency. Principles of style, language, and structure in the essay. Analysis and development of voice and genre, including sentence revision for force and clarity, and development of effective paragraphs and essays. Not open for credit to students who have taken UWP 018. GE credit: AH, WE.

A course in creative nonfiction that emphasizes principles of style, language, and structure in the essay. You will read a wide range of authors and experiment with multiple styles, gaining a greater understanding of strategies to appeal to diverse audiences in ways that will help you develop a more effective writing voice. This course will help you write more effectively throughout college and beyond. Students must be English proficient in addition to having satisfied the Entry Level Writing Requirement.