

# Spring 2020 Course Descriptions

Please review the course descriptions below. You should select your **top five** classes. The course selection survey will open **Wednesday, January 22 at 11:50 AM** and closes **Monday, January 27 at 8:00 AM**. Course assignments will be sent via UC Davis email on Wednesday, January 29.

- 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 2019-2020 academic year (one per quarter). Taking a second course during Spring 2020 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 23B, ECH 1, HNR 194, MAT 17C, MAT 21D, and NAS 34 which are capped at 6, 24, 13, 30, 30 and 15, respectively.
- 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.
- 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.*

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## COURSE OFFERINGS

TITLE	TERM	SUBJ	CRSE	SEC	CREDITS
Human Evolutionary Biology	202003	ANT	001	001	4.000
INSTRUCTOR(S)	TYPE	DAYS	TIME	BUILD	ROOM
Moya, Cristina	Lecture	MW	12:10 PM – 2:00 PM	WELLMN	205

### Description:

**Prerequisite(s):** Completion of Entry Level Writing Requirement (ELWR). Processes and course of human evolution; primatology; biological and social diversity within Homo sapiens; human paleontology. GE credit: SE, SL, **WE**.

This course explores how we became human. It delves into the latest findings from primatology, human paleontology, genetics, archaeology, and modern social and biological diversity. To understand how we are similar to our nearest relatives and what makes humans unique, the course examines the processes and course of human evolution.

The honors version of the course will spend relatively less time on reviewing concepts from high school biology. This will free up time for discussions about how the course concepts are relevant to understanding contemporary issues including human health, diversity, conservation, and cooperation.

The readings will also be supplemented with articles in lay media and discussions of the accuracy and consequences of such reporting.

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TITLE	TERM	SUBJ	CRSE	SEC	CREDITS
Historical Experiences of Asian Americans	202003	ASA	001	001	4.000

INSTRUCTOR(S)	TYPE	DAYS	TIME	BUILD	ROOM
Ho, Wendy	Lecture	TR	2:10 PM – 3:30 PM	WELLMAN	207

**Description:**

**Prerequisite(s):** Completion of Entry Level Writing Requirement (ELWR). Introduction to Asian American Studies through an overview of the history of Asians in America from the 1840s to the present within the context of the development of the United States. GE credit: ACGH, AH, DD, SS, VL, WC, WE.

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TITLE	TERM	SUBJ	CRSE	SEC	CREDITS
Genome Hunters (Part 2)	202003	BIS	23B	002	3.000

INSTRUCTOR(S)	TYPE	DAYS	TIME	BUILD	ROOM
Nord, Alexander	Lecture	T	3:10 PM – 4:00 PM	OLSON	117
Furrow, Robert	Laboratory	R	3:10 PM – 6:00 PM	STORER	343

**Description:**

Extensive Problem Solving. **Prerequisite(s):** BIS 023A; (MAT 017C (can be concurrent) or MAT 021C (can be concurrent)) or Consent of Instructor. Hands-on, project-based introduction to modern computational and bioinformatics analyses using genome sequence data generated in course 023A. Genome sequence assembly and alignment, genome annotation, and genetic correlates of behavior. Additional topics may include scientific and societal implications of the availability and usage of genome information and genome manipulation, and real-life applications of genome analysis. GE credit: SE.

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TITLE	TERM	SUBJ	CRSE	SEC	CREDITS
Modern Chinese Literature	202003	CHN	010	002	4.000

INSTRUCTOR(S)	TYPE	DAYS	TIME	BUILD	ROOM
Chen, Xiaomei	Lecture	TR	4:10 PM – 6:00 PM	WELLMAN	203

**Description:**

Introductory course requiring no knowledge of Chinese language or history. Reading and discussion of short stories and novels and viewing of two films. Designed to convey a feeling for what China has experienced in the 20th century. Not open for credit to students who have already taken, or are taking concurrently, CHN 104. GE credit: AH, WC.

This is a survey class of modern Chinese literature from the 1910s to the 1990s in the contexts of Chinese historical and cultural circumstances and Western impacts. We will examine examples of the major literary genres such as fiction, poetry, drama, and women's literature. Among some of key questions to be asked are: What is modern Chinese literature? What does it tell us about the cultural,

social, psychological, and historical changes that occurred in twentieth century China? Who are the main literary and cultural figures of that century and what did they contribute to the mentality and historical understanding of the Chinese people and the Chinese nation? What was the impact of Western thought and how did it affect the way Chinese reflected on their own cultural identities, individuality, social, and family and gender relationships? Since ethnic Chinese constitute one-fourth of the world population in the contemporary world, a deeper understanding of modern Chinese literature, as seen in the major writers and thinkers, will help us understand the perception of Chinese by Chinese and by non-Chinese. It will also help us understand how we can contribute to the mutual understanding between the Chinese people and peoples from other part of the world.

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TITLE	TERM	SUBJ	CRSE	SEC	CREDITS
Twins in Myth, Literature and Film	202003	COM	180	001	4.000

INSTRUCTOR(S)	TYPE	DAYS	TIME	BUILD	ROOM
Ross, Cheri	Lecture	TR	10:30 AM – 11:50 AM	WICKSON	1020

**Description:**

**Prerequisite(s):** Completion of Entry Level Writing Requirement (ELWR). Study of a selected topic or topics appropriate to student and faculty interests and areas of specialization of the instructor. May be repeated up to 1 Time(s). GE credit: AH, WC, WE.

The birth of twins calls forth a variety of responses: celebration at nature’s unexpected largesse; horror at the uncanny paradox of two-in-one; scientific curiosity at the possibility of the ultimate human experiment. This course will focus on various representations of twins in written texts and film with the purpose of teasing out the complexity and contradiction of doubles.

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TITLE	TERM	SUBJ	CRSE	SEC	CREDITS
Design of Coffee	202003	ECH	001	A17	3.000

INSTRUCTOR(S)	TYPE	DAYS	TIME	BUILD	ROOM
Kuhl, Tonya	Lecture	M	7:10 PM – 8:00 PM	CALIF HALL	1100
Ristenpart, Wiliam	Lab/Dis	T	10:00 AM – 11:50 AM	EVERSON	126

**Description:**

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 Chemical Engineering and Biochemical Engineering majors or students who have completed Chemical and Materials Science 5. 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.**

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TITLE	TERM	SUBJ	CRSE	SEC	CREDITS
Principles of Microeconomics	202003	ECN	01A	001	4.000

<b>INSTRUCTOR(S)</b>	<b>TYPE</b>	<b>DAYS</b>	<b>TIME</b>	<b>BUILD</b>	<b>ROOM</b>
Clark, Gregory	Lecture	MW	10:00 AM – 11:50 AM	SHREM	1001

**Description:**

ECN 001A & ECN 001B may be taken in either order. Analysis of the allocation of resources and the distribution of income through a price system; competition and monopoly; the role of public policy; comparative economic systems. GE credit: ACGH, QL, SS.

<b>TITLE</b>	<b>TERM</b>	<b>SUBJ</b>	<b>CRSE</b>	<b>SEC</b>	<b>CREDITS</b>
Global Economic History since 1800	202003	ECN	110B	001	4.000

<b>INSTRUCTOR(S)</b>	<b>TYPE</b>	<b>DAYS</b>	<b>TIME</b>	<b>BUILD</b>	<b>ROOM</b>
Meissner, Chris	Lecture	MWF	9:00 AM – 9:50 AM	BAINER	1128

**Description:**

Development and application of analytical models to explain the nature and functioning of economies since the Industrial Revolution. Examples will be drawn from a variety of societies, including England, China, Germany, and India. GE credit: SS.

This course introduces students to the evolution of the global economy since the early 19th century. Getting familiar with the economic history of the global economy will make you more comfortable in understanding current events such as the global economic crisis, the impact of international trade, the role of international capital flows, and the movement of workers across borders.

<b>TITLE</b>	<b>TERM</b>	<b>SUBJ</b>	<b>CRSE</b>	<b>SEC</b>	<b>CREDITS</b>
Learning in the Digital Age	202003	EDU	185	001	4.000

<b>INSTRUCTOR(S)</b>	<b>TYPE</b>	<b>DAYS</b>	<b>TIME</b>	<b>BUILD</b>	<b>ROOM</b>
Higgs, Jennifer	Lecture	F	10:00 AM – 12:50 PM	SCC	2103

**Description:**

Focus on the changing nature of learning in a digital age: social media, ubiquitous connectivity, online education, electronic communication, writing, gaming, and youth culture. Readings drawn from major recent works detailing fundamental shifts in information, schooling, and society. GE credit: OL, SS, VL.

<b>TITLE</b>	<b>TERM</b>	<b>SUBJ</b>	<b>CRSE</b>	<b>SEC</b>	<b>CREDITS</b>
Circuits I	202003	ENG	017	004	4.000

<b>INSTRUCTOR(S)</b>	<b>TYPE</b>	<b>DAYS</b>	<b>TIME</b>	<b>BUILD</b>	<b>ROOM</b>
Lewis, Stephen	Lecture	TR	12:10 PM – 2:00 PM	OLSON	105

**Description:**

**Prerequisite(s):** MAT 021C; C- or better recommended. Basic electric circuit analysis techniques, including electrical quantities and elements, resistive circuits, transient and steady-state responses of

RLC circuits, sinusoidal excitation and phasors, and complex frequency and network functions. GE credit: SE, VL.

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TITLE	TERM	SUBJ	CRSE	SEC	CREDITS
BioDesign Challenge (Part 2)	202003	HNR	194	000	3.000

INSTRUCTOR(S)	TYPE	DAYS	TIME	BUILD	ROOM
Cogdell, Christina	Lecture	F	9:00 AM – 11:50 AM	ACADSR	2240

**Description:**

**Prerequisite:** Winter 2020 Honors DES 128 with C-or better. Continuation of Winter 2020 University Honors Program BioDesign Challenge Course. In this unique pair of courses over two quarters, students will work closely with Design and Biology or Bioengineering faculty in a hands-on, cross-disciplinary course experience to produce and showcase innovative new products that are functional, elegant, and sustainable.

In the first quarter, teams of students learn basic principles of BioDesign and develop their project ideas for a proposal, including an introduction to the lab work they'll need to get going in the next quarter. Then students put their approved plans in motion in the second quarter to create the novel designs coupled with promotional materials such as videos, websites and product pitches. The series culminates in a local competition judged by UC Davis and visiting faculty as well community experts such as designers and venture capitalists.

In 2018, UC Davis BioDesign students produced completely novel biodegradable diapers, biosensors for toxic chemicals, sustainable fashion from biodegradable "leather", and a variety of other clever designs merging art and science. The UCD teams were specifically challenged to use agricultural waste products, even tricking Kombucha SCOBY (!), to produce new biodegradable polymers that can be incorporated into a whole host of applications. The 2018 winning UC Davis team –the Sorbit diaper team (<https://www.youtube.com/watch?v=CCKUzB2cDI>) -traveled to New York City in June representing UC Davis at the international BioDesign Challenge (<http://biodesignchallenge.org/>). They came in second overall and first place in the science category, a remarkable performance for a first time participating University!

This year's winning UC Davis team will have most of their expenses paid for a trip to New York for the 2020 international BioDesign Competition. In short, this course is one of the most unique learning experiences at UC Davis. They are (broadly speaking) looking for biologists and engineers to team up with design and art majors in particular.

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TITLE	TERM	SUBJ	CRSE	SEC	CREDITS
Special Topics in Psychology: The Surprising Forces that Shape who Children Become	202003	IST	08C	004	4.000

INSTRUCTOR(S)	TYPE	DAYS	TIME	BUILD	ROOM
Munakata, Yuko	Lecture	TR	10:00 AM – 11:50 AM	SHREM	1001

**Description:**

Group study of a special topic in the Social Sciences. Varies with topic offered. May be repeated for credit. GE credit: SS.

What made you who you are today? In this class, we will take on this fundamental question. Parenting books promise that if you raise your children right, you can guarantee their success. But these claims are often not backed by science. Instead, parents may have much less control over their children's futures than they think. We will critically evaluate these issues and other debates in child development and their real-world implications. We will explore evidence from multiple domains, including psychology, neuroscience, anthropology, education, and sociology. Embracing what the science shows may help individuals to become more enlightened parents, and children.

TITLE	TERM	SUBJ	CRSE	SEC	CREDITS
Calculus for Biology and Medicine	202003	MAT	17C	001	4.000

INSTRUCTOR(S)	TYPE	DAYS	TIME	BUILD	ROOM
Carlsson, Erik	Lecture	MWF	12:10 PM – 1:00 PM	BAINER	1060
	Discussion	R	6:10 PM – 7:00 PM	OLSON	261

**Description:**

**Prerequisite(s):** MAT 017B C- or better. Matrix algebra, functions of several variables, partial derivatives, systems of differential equations, and applications to biology and medicine. Not open for credit to students who have completed MAT 021C; only 2 units of credit to students who have completed MAT 016C. GE credit: SE, SL.

TITLE	TERM	SUBJ	CRSE	SEC	CREDITS
Vector Analysis	202003	MAT	21D	001	4.000

INSTRUCTOR(S)	TYPE	DAYS	TIME	BUILD	ROOM
Kouba, Duane	Lecture	MWF	10:00 AM – 10:50 AM	PHYSIC	148
	Discussion	T	7:10 PM – 8:00 PM	WELLMAN	007

**Description:**

**Prerequisite(s):** (MAT 021C C- or better or MAT 021CH C- or better) or MAT 017C B or better. Continuation of MAT 021C. Definite integrals over plane and solid regions in various coordinate systems. Line and surface integrals. Green's theorem, Stoke's theorem, divergence theorem. GE credit: QL, SE.

TITLE	TERM	SUBJ	CRSE	SEC	CREDITS
Euclidian Geometry	202003	MAT	141	001	4.000

INSTRUCTOR(S)	TYPE	DAYS	TIME	BUILD	ROOM
Schultens, Jennifer	Lecture	MWF	11:00 AM – 11:50 AM	WELLMAN	229
	Discussion	T	5:10 PM – 6:00 PM	WELLMAN	129

**Description:**

Prerequisite(s): ~~MAT 021B~~; (~~MAT 022A or MAT 067~~) waived. Axiomatic and analytic examination of Euclidean geometry from an advanced point of view. In particular, a discussion of its relation to other geometries. Designed to serve as preparation for the more rigorous upper division courses. GE credit: SE.

Euclidean geometry played an important role in the development of the larger field known simply as geometry. Geometry in the modern sense includes many more parts, for instance spherical geometry, hyperbolic (or Lobachevskian) geometry, and differential geometry (including 3+1 dimensional Minkowsky space which provides the arena in which to describe Einstein's relativity theory).

Part one of this course begins by considering geometry before Euclid. This task falls into three parts: 1) Using ruler and compass to perform the operations known at the time; 2) Reading Herodotus' charming descriptions of Thales' antics during the Persian wars; 3) Developing a sense of logic through public debate.

Part two continues a discussion of the Greek mathematical tradition by studying Euclid's work. This entails understanding Euclid's axioms, reading portions of Euclid's Elements, and learning to construct proofs in synthetic geometry, the style found in Euclid's Elements.

Part three fast forwards to the Dutch Golden Age in which René Descartes introduced numbers to the study of geometry by defining a coordinate system, now named after him. Cartesian coordinates provided the computational power to push mathematics into the modern age by laying the foundations for the development of analytic geometry, calculus, differential geometry in general and Minkowski space in particular. The Cartesian plane provides a simplified model of Euclidean geometry. Today's students use the Cartesian plane extensively in precalculus and calculus classes. This portion of the course involves verifying Euclid's axioms in the context of the Cartesian plane, thereby moving from synthetic geometry to analytic geometry.

Part four reviews inversion in circles, a construction from classical geometry, and employs this construction to understand the Beltrami-Klein model of the hyperbolic plane. Studying the Beltrami-Klein model of the hyperbolic plane provides insight into the dependence between the logical consistency of Euclidean geometry and the logical consistency of hyperbolic geometry.

Part five provides a quick trip through modern (differential) geometry by using calculus to define the notion of curvature. Considering surfaces of positive, zero, and negative curvature illustrates the variety of geometries known today.

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TITLE	TERM	SUBJ	CRSE	SEC	CREDITS
Music of Mozart	202003	MUS	110D	001	4.000
INSTRUCTOR(S)	TYPE	DAYS	TIME	BUILD	ROOM
Busse Berger, Anna Maria	Lecture	TR	10:00 AM – 11:50 AM	MUSIC	230

**Description:**

Prerequisite(s): **Completion of Entry Level Writing Requirement (ELWR)**. Work of Mozart will be studied in the context of his time and his contemporaries. Lectures, discussion/guided listening sections, and selected readings. For non-majors. GE credit: AH, VL, WC, **WE**.

This course consists of lectures, readings, and directed listening designed to introduce the student to ways of understanding Mozart's masterworks. In general, the lectures deal with the concepts and technical procedures relevant to the week's listening selections. The musical works are presented in chronological order and by genre. We will visit concerts or attend an opera performance.

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TITLE	TERM	SUBJ	CRSE	SEC	CREDITS
The Broadway Musical	202003	MUS	117	001	4.000
INSTRUCTOR(S)	TYPE	DAYS	TIME	BUILD	ROOM
Hess, Carol	Lecture	MW	12:10 PM – 2:00 PM	MUSIC	230

**Description:**

Exploration of a variety of Broadway and film musicals from different time periods, and how musicals reflect and help create social reality, and the different aspects of the creative process as manifested through music, dance, scenery, and acting. GE credit: AH, DD, VL.

Were you in your high school musical? Did you secretly want to be but maybe it wasn't "cool?" Have you always wondered how all the different elements of the musical—its lyrics, choreography, staging, dialogue, and all those terrific tunes—fit together?

MUS 117 explores Broadway and film musicals from different periods. We'll focus on all these elements and also consider (1) the musical and the creative process (2) musical and social reality, and (3) class, race, ethnicity, gender, sexuality, religion, and political orientation onstage. By taking the musical as its soundtrack, MUS 117 will open your eyes and ears to this beloved genre.

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TITLE	TERM	SUBJ	CRSE	SEC	CREDITS
Native American Art Studio	202003	NAS	034	001	4.000
INSTRUCTOR(S)	TYPE	DAYS	TIME	BUILD	ROOM
Tsinhnahjinnie,	Lecture	M	9:00 AM – 9:50 AM	HART	1401
Hulleah	Studio	W	9:00 AM – 11:50 AM	TBD	TBD
	Studio	M	10:00 AM – 11:50 AM	HART	1401

**Description:**

Studio projects to be influenced by contemporary and traditional Native American arts. Examples of designs and media presented in lectures will be of indigenous origin. Introduction and familiarized with various materials and techniques. GE credit: ACGH, AH, DD, OL, VL, WC.

The class will also visit the Cache Creek Conservancy, and the Raptor Center. Introduction to screen printing with an emphasis on photo emulsion/textile printing.

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TITLE	TERM	SUBJ	CRSE	SEC	CREDITS
Psychology of Music	202003	PSC	136	001	4.000
INSTRUCTOR(S)	TYPE	DAYS	TIME	BUILD	ROOM



Janata, Petr                      Lecture                      MW      3:10 PM – 5:00 PM                      SOCSCI                      90

**Description:**

**Prerequisite(s):** Completion of Entry Level Writing Requirement (ELWR). Introduction to the mental and neural representations of musical structures and processes involved in perceiving, remembering, and performing music. Music and emotion. GE credit: WE.

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TITLE	TERM	SUBJ	CRSE	SEC	CREDITS
Video Game Rhetoric	202003	UWP	013	A01	4.000

  

INSTRUCTOR(S)	TYPE	DAYS	TIME	BUILD	ROOM
Ching, Kory	Lecture	TR	10:30 PM – 11:50 AM	CRUESS	107

**Description:**

**Prerequisite(s):** Completion of Entry Level Writing Requirement (ELWR). Examination of video games as rhetorical texts whose meaning is produced through complex interplay of procedures, narratives, rules, and context. Writing about video games using critical perspectives and analytic methods. GE credit: AH, VL, **WE**.

Video games are texts whose meanings are produced through a complex interplay of narrative, rules, and cultural contexts. In this course, students use critical perspectives and analytic methods to play, analyze, and write about video game. Students will design and propose their own video games based on course concepts.

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TITLE	TERM	SUBJ	CRSE	SEC	CREDITS
Introduction to Winemaking	202003	VEN	003	002	3.000

  

INSTRUCTOR(S)	TYPE	DAYS	TIME	BUILD	ROOM
Ebeler, Susan	Lecture	TR	9:00 AM – 10:20 AM	RMIBWF*	00000

**Description:**

Overview of the history of wine, viticulture, fermentation, winery operations, the physiology of wine consumption, wines produced in California and other major wine-producing regions and the sensory evaluation of wine. GE credit: SE, SS.

\*This course is taught in the Robert Mondavi Institute Beer and Wine Facility

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