Fields of Study

Programs and concentrations. Links go to the detailed discussion of each program, including its courses, later in the catalog.

	Undergraduate Education			Graduate Education				
	B.A.	B.S.	Minor	Certi-ficate	M.A. / M.F.A.	M.S.	Ph.D.	Designated Emphasis
American literature: see Literature								
American studies	•							•
Anthropology	•		•				•	•
Archaeology							c	
Cultural anthropology							c	
Physical anthropology							c	
Applied Mathematics			•					
Applied Mathematics and Statistics						•	•	
Applied physics		•						
Art	•							
Art history: see History of art and visual culture								
Asian studies: see East Asian studies								
Astronomy and astrophysics							•	
Astrophysics (see also Physics [Astrophysics])			•					
Bilingual-multicultural education: see Education								
Biochemistry and molecular biology		•						
Bioengineering		•						
Bioelectronics		c						
Biomolecular		c						
Rehabilitation		c						
Bioinformatics		•	•					
Biomolecular engineering and bioinformatics						•	•	
Biological Sciences								
Biology	•	•	•					
Bioeducation	c							
Ecology and evolution		•						
Ecology and evolutionary biology					•		•	•
Human Biology		•						
Marine biology		•						
Molecular, cell, and developmental biology		•			•		•	
Neuroscience		•						
Plant sciences		•						
Chemistry	•	•	•			•	•	
Biochemistry		c						
Environmental chemistry		c						
Chinese language								
Classical studies (see also Literature)	•		•					
Cognitive science (see also Psychology)		•						
Community studies	•							
Computer engineering (2)		•	•			•	•	
Computer systems		c						
Digital hardware		c						
Networks		c						
Robotics and control		c						•
Systems programming		c						
Computer science	•	•	•			•	•	
Computer science: Computer game design		•						

Creative writing: see Literature								
Dance: see Theater arts								
Digital arts and new media (3)					•			
Drama: see Theater arts								
Dramatic literature: see Theater arts								
Earth sciences		•	•			•	•	
Environmental geology		c						
Ocean sciences		c						
Planetary sciences		c						
Science education		c						
East Asian studies			•					
Ecology and evolution		•						
Ecology and evolutionary biology					•		•	
Economics	•		•				•	
Applied economics and finance						•		
Business management economics	•							
Global economics	•							
Education (4)			•		•		•	•
Science, technology engineering, and mathematics			•					
Bilingual-multicultural education					c			
Multiple subjects credential (elementary)					c			
Single subjects credential (secondary)					c			
Language, literacy, and culture							c	
Learning and teaching							c	
Mathematics and science education							c	
Social and cultural contexts of education							c	
Teachers and teacher development							c	
Electrical engineering		•	•			•	•	
Electronics/Optics		c						
Communications, signals, systems, and controls		c						
English: see Literature and see Linguistics								
Environmental studies	•						•	•
Environmental toxicology: see Microbiology and Environmental Toxicology								
Feminist studies	•						•	•
Culture, power, and representation	c							
Law, politics, and social change	c							
Science, technology, and medicine	c							
Sexuality studies	c							
Film and digital media	•		•				•	
Critical studies	c							
Integrated critical practice	c							
Production	c							
French language								
French literature: see Literature								
Games and Playable Media						•		
Geology: see Earth sciences								
German language								
German literature: see Literature								
German studies	•							
Global information and social enterprise studies			•					
Greek language: see Greek and Literature								
Greek literature: see Literature								
Hebrew language								

History	•		•		•		•	
Americans and Africa	c							
Asia and the Islamic world	c							
Colonialism, nationalism, and race							c	
Europe	c							
History of gender							c	
History of art and visual culture	•		•					
Religion and visual culture	c							
History of consciousness							•	•
Human Biology		•						
Italian language								
Italian literature: see Literature								
Italian studies	•		•					
Japanese language								
Jewish studies	•		•					
Language studies	•		•					
Chinese	c		c					
French	c		c					
German	c		c					
Italian	c		c					
Japanese	c		c					
Spanish	c		c					
Latin American and Latino studies	•		•				•	•
Latin language: see Latin and Literature								
Latin literature: see Literature								
Legal studies	•		•					
Linguistics (see also Language studies)	•		•		•		•	
Theoretical linguistics	c				c		c	
Literature (5)	•		•		•		•	•
Creative writing	c							
English-language literatures	c				c		c	
French literature	c				c		c	
German literature	c							
Greek and Latin literatures	c							
Italian literature	c							
Modern literary studies	c				c		c	
Pre- and early modern studies	c				c		c	
Spanish/Latin American/ Latino literatures	c				c		c	
World literature and cultural studies	c				c		c	
Marine biology		•						
Marine sciences: see Ocean sciences								
Mathematics	•		•		•		•	
Computational mathematics	c							
Mathematics education	c							
Pure mathematics	c				c		c	
Medieval studies								
Microbiology and environmental toxicology						•	•	
Molecular, cell, and developmental biology		•			•		•	
Music (6)	•				•		•	
Electronic music			•					
Jazz			•					
Network and Digital Technology	•							
Neuroscience		•						
Ocean sciences						•	•	

Biology (see also Marine biology)						c		
Biological oceanography							c	
Chemical oceanography							c	
Chemistry						c		
Earth Sciences						c		
Geological oceanography							c	
Physical oceanography							c	
Physics						c		
Philosophy	•		•		•		•	•
Photography: see Art								
Physics (1)		•	•			•	•	
Physics (Astrophysics)		•						
Physics Education		•						
Plant sciences		•						
Playwriting: see Theater arts								
Politics	•		•				•	•
Portuguese language								
Psychology (5)	•						•	
Cognitive psychology							c	
Developmental psychology							c	
Social psychology							c	
Religious studies								
Robotics Engineering		•						
Russian language								
Science communication: Science writing				•				
Social documentation					•			
Sociology (5)	•		•				•	•
Spanish for Spanish speakers								
Spanish language								
Spanish literature: see Literature								
Spanish Studies	•							
Language and Linguistics	c							
Literature and Culture	c							
Statistics			•					•
Statistics and Applied Mathematics						•	•	
Technology and information management		•	•			•	•	
Theater arts	•		•		•			
Dance	c		•					
Design and technology	c							
Drama	c							
Visual Studies							•	•
Western civilization								
Women's studies (see Feminist Studies)								
Writing								

Combined majors. In addition, students may complete a combined major leading to a B.A. degree in a number of designated fields. Combined majors currently available include those in Earth sciences/anthropology, economics/mathematics, environmental studies/biology, environmental studies/Earth sciences, environmental studies/economics, Latin American and Latino studies/global economics, Latin American and Latino studies/literature, Latin American and Latino studies/politics, and Latin American and Latino studies/sociology. Students also have the option of pursuing a double major.

c = concentration, or emphasis, within a program. Some programs give students the option of following a general course of study or selecting a concentration; other programs require students to choose a concentration. Consult the program on the page indicated.

1 Combined B.S./M.S. in physics is available with concentrations in:

a) Materials and device physics
b) Energy and the environment
c) Computational physics
d) Finance and economics
e) Medical biophysics

2 A combined B.S./M.S. program in computer engineering is also available.

3 A master of fine arts (M.F.A.) degree is awarded in digital arts and new media.

4 Because California state law requires prospective teachers to earn a bachelor's degree in an academic discipline other than education, no undergraduate major is offered. All teaching credentials are earned postbaccalaureate. UCSC offers the professional clear Cross-cultural, Language and Academic Development

(CLAD) and Bilingual Cross-cultural, Language and Academic Development (BCLAD) multiple subjects credentials, which are used in self-contained elementary classrooms (K–6) where all subjects are taught by the same teacher. UCSC also offers the CLAD and BCLAD single subjects credentials, which are used in departmentalized settings where the teacher is responsible for one subject (7–12). A Doctor of Education (Ed.D.) in collaborative leadership is also available.

5 An intensive major is also available.

6 B.M. degree in music also available. Doctorate of musical arts (D.M.A.) degree in composition also available.

Degrees

B.A. = Bachelor of Arts
B.M. = Bachelor of Music
B.S. = Bachelor of Science
D.M.A. = Doctor of Musical Arts
Ed.D. = Doctor of Education
M.A. = Master of Arts
M.F.A. = Master of Fine Arts
M.S. = Master of Science
Ph.D. = Doctor of Philosophy