## Fields of Study

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

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### American literature:
- see [Literature](#)

### American studies
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### Anthropology
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### Archaeology
- [Certificate](#)

### Cultural anthropology
- [Certificate](#)

### Physical anthropology
- [Certificate](#)

### Applied Mathematics
- [Certificate](#)

### Applied Mathematics and Statistics
- [Certificate](#)

### Applied physics
- [Certificate](#)

### Art
- [Certificate](#)

### Art history: see [History of art and visual culture](#)

### Asian studies: see [East Asian studies](#)

### Astronomy and astrophysics
- [Certificate](#)

### Astrophysics (see also [Physics](#))
- [Certificate](#)

### Bilingual-multicultural education: see [Education](#)

### Biochemistry and molecular biology
- [Certificate](#)

### Bioengineering
- [Certificate](#)

### Bioinformatics
- [Certificate](#)

### Biomolecular engineering and bioinformatics
- [Certificate](#)

### Biological Sciences

#### Biology
- [Certificate](#)

#### Bioeducation
- [Certificate](#)

#### Ecology and evolution
- [Certificate](#)

#### Ecology and evolutionary biology
- [Certificate](#)

#### Human Biology
- [Certificate](#)

#### Marine biology
- [Certificate](#)

#### Molecular, cell, and developmental biology
- [Certificate](#)

#### Neuroscience
- [Certificate](#)

#### Plant sciences
- [Certificate](#)

### Chemistry
- [Certificate](#)

### Biochemistry
- [Certificate](#)

### Environmental chemistry
- [Certificate](#)

### Chinese language

### Classical studies
- [See also [Literature](#)](#)

### Cognitive science (see also [Psychology](#))
- [Certificate](#)

### Community studies
- [Certificate](#)

### Computer engineering (2)
- [Certificate](#)

#### Computer systems
- [Certificate](#)

#### Digital hardware
- [Certificate](#)

#### Networks
- [Certificate](#)

#### Robotics and control
- [Certificate](#)

#### Systems programming
- [Certificate](#)

### Computer science
- [Certificate](#)

### Computer science: Computer game design
- [Certificate](#)
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  Ċ
- Ocean sciences  Ċ
- Planetary sciences  Ċ
- Science education  Ċ
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  Ċ
- Bilingual-multicultural education  Ċ
- Multiple subjects credential (elementary)  Ă
- Single subjects credential (secondary)  Ć
- Language, literacy, and culture  Ć
- Learning and teaching  Ć
- Mathematics and science education  Ć
- Social and cultural contexts of education  Ć
- Teachers and teacher development  Ć
Electrical engineering
- Electronics/Optics  Ć
- Communications, signals, systems, and controls  Ć
English:
- see Literature and see Linguistics
Environmental studies  •
Environmental toxicology: see Microbiology and Environmental Toxicology
Feminist studies
- Culture, power, and representation  Ć
- Law, politics, and social change  Ć
- Science, technology, and medicine  Ć
- Sexuality studies  Ć
Film and digital media
- Critical studies  Ć
- Integrated critical practice  Ć
- Production  Ć
French language
French literature: see Literature
Games and Playable Media  •
Geology: see Earth sciences
German language
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Global information and social enterprise studies  •
Greek language:
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Hebrew language
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Biology
(see also Marine biology)

Biological oceanography
Chemical oceanography
Chemistry
Earth Sciences
Geological oceanography
Physical oceanography
Physics

Philosophy

Photography: see Art

Physics (1)
Physics (Astrophysics)
Physics Education
Plant sciences

Playwriting: see Theater arts

Politics

Portuguese language

Psychology (3)
Cognitive psychology
Developmental psychology
Social psychology

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
Literature and Culture

Statistics

Statistics and Applied Mathematics

Technology and information management

Theater arts
Dance
Design and technology
Drama

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