

# UNIVERSITY OF CALIFORNIA SANTA BARBARA

## COURSES FOR MAJOR PREPARATION

Some major preparation courses listed below must be completed prior to transfer. Others are recommended to be completed prior to transfer but may be completed after transfer if necessary. Having more major preparation done before transferring will often shorten the time to graduation. Additional major preparation courses that aren't listed here may also be taken prior to transfer. Please refer to the major articulation agreements at [www.assist.org](http://www.assist.org) for a full listing of major preparation courses for each major and for the California community college courses that will satisfy these requirements.

KEY

- Recommended prior to transfer. ◆ Required prior to transfer.
- Required prior to transfer with no individual grade below "C" and a cumulative 2.75 major preparation GPA or better.
- Required prior to transfer with no individual grade below "C" and a cumulative 2.7 major preparation GPA or better.

### LETTERS & SCIENCE

#### ANTHROPOLOGY, B.A.

- Cultural anthropology
- Archaeology
- Biological anthropology

#### ART, B.A.

- General Education or IGETC

#### BIOCHEMISTRY, B.S.

- 1 year general chemistry w/ labs
- 1 year organic chemistry w/ labs
- General physics series w/ labs **OR** physics for science and engineering majors series w/ labs
- 2 semesters calculus for science and math majors
- Linear algebra
- Multivariable calculus

### BIOLOGICAL SCIENCES

#### AQUATIC BIOLOGY, B.S. BIOLOGICAL SCIENCES, B.A./B.S. ECOLOGY & EVOLUTION, B.S. PHYSIOLOGY, B.S. ZOOLOGY, B.S.

- 1 year general chemistry w/ labs
- Biology for biology majors sequence w/ labs
- 1 year organic chemistry w/ labs\*
- General physics series w/ labs
- 2 semesters calculus
- Statistics

\*Not required for Ecology & Evolution or Zoology, but it may be required by some graduate or professional schools

#### BIOCHEMISTRY – MOLECULAR BIOLOGY, B.S.

- 1 year general chemistry w/ labs
- Biology for biology majors sequence w/ labs
- 1 year organic chemistry w/ labs
- General physics series w/ labs
- 2 semesters calculus for science and math majors
- Linear algebra
- Multivariable calculus

#### CELL & DEVELOPMENTAL BIOLOGY, B.S. MICROBIOLOGY, B.S. PHARMACOLOGY, B.S.

- 1 year general chemistry w/ labs
- Biology for biology majors sequence w/ labs
- 1 year organic chemistry w/ labs
- General physics series w/ labs
- 2 semesters calculus
- Statistics **OR** linear algebra

#### BIOPSYCHOLOGY, B.S.

- Introduction to psychology
- Biological psychology
- Research methods for psychology
- Statistics
- 2 semesters calculus
- 1 year general chemistry w/ labs
- Biology for biology majors sequence w/ labs
- 1 year organic chemistry w/ labs
- General physics series w/ labs

#### CHEMISTRY, B.A./B.S.

- 1 year general chemistry w/ labs
- 1 year organic chemistry w/ labs
- Physics for science and engineering majors series w/ labs
- 2 semesters calculus for science and math majors
- Linear algebra
- Differential equations
- Multivariable calculus

#### CLASSICS, B.A.

- General Education or IGETC
- 1st semester world history **OR** western civilization
- **CLASSICAL ARCHAEOLOGY EMPHASIS:**
  - Archaeology
  - 1st semester western art history
- **CLASSICAL LANGUAGE & LITERATURE EMPHASIS:** 1 year Greek or Latin\*
- **GREEK & ROMAN CULTURE EMPHASIS:** 1st semester western art history

\*Placement exams available after UCSB enrollment, if needed

#### COMMUNICATION, B.A.

- General Education or IGETC
- Statistics

#### COMPARATIVE LITERATURE, B.A.

- 2 years Language Other Than English (LOTE)

- 1st and 2nd semester world history **OR** western civilization **OR** western art history

### CULTURAL & GENDER STUDIES

#### ASIAN AMERICAN STUDIES, B.A. ASIAN STUDIES, B.A. BLACK STUDIES, B.A. CHICANO/A STUDIES, B.A. FEMINIST STUDIES, B.A. LATIN AMERICAN & IBERIAN STUDIES, B.A.

- Middle East Studies, B.A.
- General Education or IGETC
- **ASIAN STUDIES, B.A.:** 2 years Chinese or Japanese **OR** equivalent language proficiency
- **LATIN AMERICAN AND IBERIAN STUDIES, B.A.:** 2 years Spanish or Portuguese **OR** equivalent language proficiency

#### DANCE, B.A./B.F.A.

- Audition required*
- General Education or IGETC
- History & appreciation of dance
- Ballet series
- Choreography
- Improvisation
- Modern dance series
- Dance lighting design
- Stagecraft **OR** lighting **OR** costume
- Music appreciation
- Introduction to acting (for B.F.A.)

#### EARTH SCIENCE, B.A./B.S.

- 1 year general chemistry w/ labs
- General physics series w/ labs **OR** physics for science and engineering majors series w/ labs (required for Geophysics Emphasis)
- 2 semesters calculus for science and math majors

#### ECONOMICS, B.A.

- **ECONOMICS & ACCOUNTING, B.A.**
- General Education or IGETC
- Macroeconomics
- Microeconomics
- 1st & 2nd semester calculus
- **ECONOMICS & ACCOUNTING, B.A.:** 1 or 2 semesters financial accounting

#### ENGLISH, B.A.

- Introduction to Shakespeare
- 2 years Language Other Than English (LOTE)
- Introduction to literary study

#### ENVIRONMENTAL STUDIES, B.A.

- 1 semester calculus
- Statistics
- 1st course general chemistry
- Macroeconomics **OR** microeconomics

#### ENVIRONMENTAL STUDIES, B.S.

- 1 year general chemistry w/ labs
- General physics series w/ labs **OR** physics for science and engineering majors series w/ labs
- 2 semesters calculus for science and math majors
- Statistics

#### FILM & MEDIA STUDIES, B.A.

- General Education or IGETC

#### GEOGRAPHY, B.A.

- Statistics
- Physical geography
- Cultural geography
- Chemistry w/ lab **OR** physics w/ lab **OR** biology w/ lab
- Cultural anthropology
- **OR** physical anthropology
- **OR** communication **OR** macroeconomics **OR** microeconomics **OR** psychology
- **OR** sociology **OR** linguistics **OR** international relations
- **GEOGRAPHIC INFORMATION SCIENCE EMPHASIS:** 1 semester calculus for science and math majors

#### GEOGRAPHY, PHYSICAL, B.S.

- 1 year general chemistry w/ labs
- General physics series w/ labs **OR** physics for science and engineering majors series w/ labs
- 2 semesters calculus for science and math majors
- Statistics
- Physical geography
- Cultural geography

#### GLOBAL STUDIES, B.A.

- General Education or IGETC
- 1 year modern foreign language

## HISTORY, B.A.

### HISTORY OF PUBLIC POLICY, B.A.

- 1st and 2nd semester western civilization **OR** world history **OR** U.S. history

## HISTORY OF ART &

### ARCHITECTURE, B.A.

- General Education or IGETC
- 1 year western art history

## HYDROLOGIC SCIENCES & POLICY, B.S.

- 1 year general chemistry w/ labs
- Physics for science and engineering majors series w/ labs **OR** general physics series w/ labs
- 2 semesters calculus for science and math majors
- Statistics

## LANGUAGES

### CHINESE, B.A.

### FRENCH, B.A.

### GERMAN, B.A.

### ITALIAN STUDIES, B.A.

### JAPANESE, B.A.

### PORTUGUESE, B.A.

### SLAVIC LANGUAGES &

### LITERATURES, B.A.

### SPANISH, B.A.

- General Education or IGETC
- 2 years language instruction **OR** equivalent language proficiency

## LANGUAGE, CULTURE & SOCIETY, B.A.

- 1 year Language Other Than English (LOTE)
- Cultural anthropology
- Introduction to sociology

## LINGUISTICS, B.A.

- 2 years Language Other Than English (LOTE) in one language
- 1 year LOTE in a 2nd language (encouraged to take one language outside of the Indo-European family)

## MATHEMATICAL SCIENCES, B.S.

### MATHEMATICS, B.A./B.S.

- 2 semesters calculus for science and math majors
- Linear algebra
- Differential equations

## MEDIEVAL STUDIES, B.A.

- 2 semesters western civilization **OR** world history

## MUSIC STUDIES, B.A.

- 1 or 2 years private lessons and/or ensembles
- 1 year music theory
- 1 year musicianship
- 1 year survey of western music history
- World music (not required for Western Art Music emphasis)

## MUSIC, B.M. (audition required)

- 2 years private lessons
- 2 years large ensembles
- 2 years music theory
- 2 years musicianship
- 1 year survey of western music history
- Piano proficiency required
- **PIANO EMPHASIS:** 1 year Italian, French **OR** German
- **VOICE EMPHASIS:**
  - 1 year Italian
  - 1 year French **OR** German

## PHILOSOPHY, B.A.

- General Education or IGETC
- Critical thinking/logic
- History of philosophy series (not required for Ethics & Public Policy concentration)
- **ETHICS & PUBLIC POLICY CONCENTRATION:** Ethics

## PHYSICS, B.A./B.S.

- 1 year general chemistry w/ labs
- Physics for science and engineering majors series w/ labs
- 2 semesters calculus for science and math majors
- Multivariable calculus
- Linear algebra
- Differential equations

## POLITICAL SCIENCE, B.A.

- Political philosophy
- Comparative politics
- International relations
- American government
- Macroeconomics
- Microeconomics

## PSYCHOLOGICAL & BRAIN SCIENCES, B.S.

### PSYCHOLOGY, B.A.\*

- Introduction to psychology
- 1 semester calculus
- Statistics

### PSYCHOLOGICAL & BRAIN SCIENCES, B.S.:

- 1 year general chemistry
- Biology for biology majors sequence

*\*Will be replaced by Psychological and Brain Sciences, B.S. after fall 2017 entering class*

## RELIGIOUS STUDIES, B.A.

- General Education or IGETC

## RENAISSANCE STUDIES, B.A.

- General Education or IGETC
- 2 semesters western civilization **OR** western art history

## SOCIOLOGY, B.A.

- Introduction to sociology
- Statistics
- Two courses from:**
  - 2nd semester world history
  - 2nd semester western civilization
  - Latin American history
  - U.S. history

## STATISTICS & APPLIED PROBABILITY

### ACTUARIAL SCIENCE, B.S.

### FINANCIAL MATHEMATICS & STATISTICS, B.S.

### STATISTICAL SCIENCE, B.A./B.S.

- 2 semesters calculus for science and math majors
- Linear algebra
- Differential equations
- UCSB PSTAT 120AB recommended to be taken the summer before fall of first year
- **FINANCIAL MATHEMATICS & STATISTICS, B.S.:**
  - Macroeconomics
  - Microeconomics

## THEATER, B.A./B.F.A.

*Audition required for B.F.A.*

- General Education or IGETC
- Introduction to acting
- Stagecraft
- Lighting
- Costume

## CREATIVE STUDIES

*Supplemental application required*

### ART, B.A.

- General Education or IGETC

### BIOLOGY, B.A.

- 1 year general chemistry w/ labs
- General physics series w/ labs
- Biology for biology majors sequence w/ labs
- 2 semesters calculus for science and math majors

### CHEMISTRY/BIOCHEMISTRY, B.A./B.S.

- 1 year general chemistry w/ labs
- 1 year organic chemistry w/ labs
- Physics for science and engineering majors series w/ labs
- 2 semesters calculus for science and math majors
- Linear algebra

### COMPUTING, B.S.

- 2 semesters calculus for science and math majors
- Multivariable calculus
- Linear algebra
- Differential equations
- Physics for science and engineering majors series w/ labs
- Programming in C or C++
- Data structures
- Discrete math/discrete structures
- Computer organization w/ logic design

### MATHEMATICS, B.A./B.S.

- IGETC
- 2 semesters calculus for science and math majors
- Multivariable calculus
- Linear algebra
- Differential equations

## MUSIC COMPOSITION, B.S.

- General Education or IGETC
- Musicianship and music theory

## PHYSICS, B.A./B.S.

**See Physics, B.A./B.S. under Letters & Science**

## ENGINEERING

### REQUIRED FOR ALL COLLEGE OF ENGINEERING MAJORS:

- ◆ Physics for science and engineering majors series w/ labs\*
  - ◆ 2 semesters calculus for science and math majors
  - ◆ Linear algebra
  - ◆ Differential equations
- \*Content equivalent to UCSB Physics 1-3L*

### CHEMICAL ENGINEERING, B.S.

#### Four requirements above PLUS:

- ◆ 1 year general chemistry w/ labs
- ◆ MATLAB
- 1 year organic chemistry w/ labs
- Multivariable calculus

### COMPUTER ENGINEERING, B.S.

#### Four requirements above PLUS:

- ◆ Programming in C or C++
- ◆ Data structures in C++
- Discrete math
- 1st course in general chemistry w/ lab
- Circuits and devices w/ lab
- Digital logic

### COMPUTER SCIENCE, B.S.

#### Four requirements above PLUS:

- ◆ Programming in C or C++
- ◆ Data structures in C++
- ◆ Discrete math
- Multivariable calculus
- Computer organization w/ logic design

### ELECTRICAL ENGINEERING, B.S.

#### Four requirements above PLUS:

- ◆ Programming in C or C++
- ◆ MATLAB
- Multivariable calculus
- Data structures in C++
- 1st course in general chemistry w/ lab
- Circuits and devices w/ lab
- Digital logic

### MECHANICAL ENGINEERING, B.S.

#### Four requirements above PLUS:

- ◆ 1st course in general chemistry w/ lab
- ◆ Statics
- ◆ Dynamics
- ◆ MATLAB
- Multivariable calculus
- 2nd course in general chemistry w/ lab
- Electronic circuits
- Engineering graphics
- Strength of materials