

**UC SANTA BARBARA**  
**2021-22 Major and Curriculum Updates**

**NEW MAJOR**

- Italian Studies, B.A. – Transnational Emphasis (beginning F21)

This new emphasis in the Italian Studies major institutionalizes a transnational perspective on the formation of cultures and identities that has come to maturity in our age of global interconnectedness. Voluntary and forced mobilities alike challenge the stability of state boundaries and the rootedness of national identities to such a degree that they dispel long-held illusions about the naturalness, self-containment, and stability of nation states. Transnationalism can be defined as a point of view that, on the one hand, conceives nations as imagined communities that are constantly in the making, and, on the other hand, sees the construction of national identities as involving not only citizens, but also non-citizen subjects: colonial subjects, tourists, immigrants, émigrés as well as people creating or consuming national images abroad. If this is the case with all nations, Italy is quite possibly the first transnational *nation ante litteram* and arguably remains the most active laboratory of transnationalism today. Our new major offers a wide-ranging transnational perspective on the discursive formation and development of Italian culture, identity and Italian-ness from multiple perspectives. It involves different historical agents, from international leisure mobility (tourism), to settler colonialism, diaspora colonialism, as well as new immigrant communities, and, of course, Italy's long-lasting interaction with the Mediterranean Sea and basin. Offered as a stand-alone major for anyone interested in a career in international affairs, this emphasis is designed as a complementary major for any student in the social sciences interested in global phenomena.

**TERMINATED MAJOR**

- Renaissance Studies, B.A.

**NEW OR CHANGED ADMISSION SELECTION CRITERIA**

- Physics, B.A. and Physics, B.S. – We will start screening for major preparation for fall 2022 applications. (November 2021 application filing period.) Transfer applicants will be required to complete the UC Transfer Pathway in Physics with a GPA of at least 3.4 in the Transfer Pathway courses and no grade below C in those courses.
- Applied Mathematics, B.S., Mathematics, B.A., and Mathematics, B.S. now require at least three math courses to be completed for admission instead of two (Calculus I, Calculus II, and at least one of Linear Algebra, Differential Equations, Multivariable/Vector Calculus)

**MAJORS THAT NOW HAVE PRE-MAJORS**

- Actuarial Science, B.S. – students admitted for F21 and later are admitted to Pre-Actuarial Science, not directly to the major. They will need to complete the Pre-Major courses with a UC GPA of at least 2.5 in those courses and with no grade lower than C before petitioning to move into the Actuarial Science major.
- Statistics and Data Science, B.A. and Statistics and Data Science, B.S. – students admitted for F21 and later are admitted to Pre-Statistics and Data Science, not directly to the major. They will need to complete the Pre-Major courses with a UC GPA of at least 2.5 in those courses and with no grade lower than C before petitioning to move into the Statistics and Data Science major.

## MAJORS WITH CHANGES TO LOWER-DIVISION MAJOR PREPARATION

### Actuarial Science, B.S.

- CMPSC 8 (Introduction to Computer Science) added as a requirement (but it was already a prerequisite for CMPSC 16)
- CMPSC 9 (Intermediate Python Programming) added as an option - can take CMPSC 9 or CMPSC 16 (Problem Solving with Computers I)
- There is now a pre-major, so students are admitted to Pre-Actuarial Science

### Applied Mathematics, B.S.

- No change to major preparation, but selection now requires at least three math classes to be completed for admission instead of two (Calculus I, Calculus II, and at least one of Linear Algebra, Differential Equations, Multivariable/Vector Calculus)

### Anthropology, B.A. – Biological Emphasis

- ANTH 7 (Introductory Biosocial Anthropology) removed as a major requirement

### Dance, B.A.

- Additional options for freshman and sophomore level technique [DANCE 43A-B-C (Beginning Street Dance Forms), 46 (Introduction to Social Dance: History and Practice)]
- MUS 17 (World Music) added as an option – can take MUS 15 (Music Appreciation) or MUS 17

### Earth Science, B.S. – Geophysics Emphasis

- CHEM 1C-1CL (third quarter general chemistry with lab) removed
- Added EARTH 9 (Giant Earthquakes), 11 (Volcanoes and Humans), or 20 (Geological Catastrophes) as options along with the previous options EARTH 3 (Principles of Historical Geology) or 4 (Introduction to Oceanography)
- Added EARTH 175 (Introduction to MATLAB for Earth Scientists) as an option along with the previous options CMPSC 8 (Introduction to Computer Science) or CMPSC 16 (Problem Solving with Computers I), but EARTH 175 will not be articulated since it is upper-division

### History of Art and Architecture, B.A.

- ARTHI W 6R (Rome: The Game) added as an option
- ARTHI 86 no longer an option, except by petition

### History of Art and Architecture, B.A. – Architecture and Environment Emphasis

- ARTHI W 6R (Rome: The Game) added as an option
- ARTHI 86 no longer an option, except by petition

### History of Art and Architecture, B.A. – Museum Studies Emphasis

- ARTHI W 6R (Rome: The Game) added as an option
- ARTHI 86 no longer an option, except by petition

#### History, B.A.

- HIST 22 (Technology and the Modern World) added as an option

#### Linguistics, B.A.

- Language and Speech Technologies Emphasis no longer requires a second foreign language

#### Mathematics, B.A.

- No change to major preparation, but selection now requires at least three math classes to be completed for admission instead of two (Calculus I, Calculus II, and at least one of Linear Algebra, Differential Equations, Multivariable/Vector Calculus)

#### Mathematics, B.S.

- No change to major preparation, but selection now requires at least three math classes to be completed for admission instead of two (Calculus I, Calculus II, and at least one of Linear Algebra, Differential Equations, Multivariable/Vector Calculus)

#### Physics, B.A. & B.S.

- Students applying in November 2021 for fall 2022 admission will need to complete the UC Transfer Pathway in Physics with a GPA of at least 3.4 in the pathway courses and no grade lower than C in the pathway courses
- Physics series at UCSB has changed to PHYS 21 & 22 & 23 & 24 & 25 & 20AL & 20BL & 20CL, but the articulations have not changed
- Transfer students will satisfy the science electives with the general chemistry series that is required for admission as part of the UC Transfer Pathway in Physics (freshmen at UCSB have some other options for science electives, but that is not relevant for transfer students)
- PHYS 29 (Introduction to Computer Programming for the Physical Sciences) added as a major requirement, but it will be taken after transfer

#### Religious Studies, B.A.

- RG ST 48 (Self, Society, and Nature in Chinese Thought) added as an option in Area A

#### Statistics and Data Science, B.A.

- CMPSC 8 (Introduction to Computer Science) added as a requirement (but it was already a prerequisite for CMPSC 16)
- CMPSC 9 (Intermediate Python Programming) added as an option – can take CMPSC 9 or CMPSC 16 (Problem Solving with Computers I)
- There is now a pre-major, so students are admitted to Pre-Actuarial Science

#### Statistics and Data Science, B.S.

- CMPSC 8 (Introduction to Computer Science) added as a requirement (but it was already a prerequisite for CMPSC 16)
- CMPSC 9 (Intermediate Python Programming) added as an option – can take CMPSC 9 or CMPSC 16 (Problem Solving with Computers I)
- There is now a pre-major, so students are admitted to Pre-Actuarial Science

## NEW COURSES FOR 2021-22

### **ARTHI 86 – Research Seminar in History of Art & Architecture (4 units)**

(This was actually a late addition to the 2020-21 curriculum)

Introduces students to current topics and debates in the history of art and architecture. Topics will vary. This course requires weekly readings and discussion, and the writing of a research seminar paper.

### **ARTHI W 6R – Rome: The Game (4 units)**

This online course - presented as an adventure game - introduces students to the art and archaeology of Rome, with assignments that focus on writing and the research process. The course asks students to determine whether or not a collection of ancient objects from an American museum should remain in the US or be sent back to Italy. Throughout the course, students excavate artifacts at a digital dig site, visit museums, explore Roman monuments, and navigate the shadowy world of the tombaroli (tomb robbers) and mafia-run black market for antiquities.

### **EARTH 9 – Giant Earthquakes (4 units)**

(This is not a new course but this is the first year it's part of a major – I added it to the 2013-14 curriculum in ASSIST.)

**Prerequisite:** None

**Recommended Preparation:** *Math 3A or Math 3B or Math 34A or Math 34B and Physics 6A or Physics 1*

Study of the character and causes of large earthquakes, the hazards they pose, and how society can prepare for and mitigate their impacts. Historical case studies will illuminate why their slip characteristics and destructive effects vary so widely.

### **EARTH 11 – Volcanoes and Humans (4 units)**

(This is not a new course but this is the first year it's part of a major – I added it to the 2016-17 curriculum in ASSIST.)

An introduction to volcanism and its consequences. Origins and physical processes of volcanism; the natural benefits of volcanoes; volcanic hazards and disasters; volcanoes in human history, society, and culture; volcanoes and climate; volcano monitoring and hazard mitigation.

### **EARTH 175 – Introduction to MATLAB for Earth Scientists (4 units)**

A 10-week introduction to coding in MATLAB including: basic programming, analysis using vectors and matrices, logical operations and indexing, data import/export, visualization and plotting, designing functions and packages, interactive user interface, and debugging.

### **ECON 5 – Statistics for Economics (5 units)**

**Prerequisite:** *Math 34A-B or Math 2A-B or 3A-B; Math 34B or 2B or 3B can be taken simultaneously.*

*Course cannot be used to satisfy any Actuarial Science, Financial Math & Statistics or Statistical Science major or minor requirements.*

**Enrollment Comments:** *Course must be taken at UCSB. Not open for credit to students who have completed PSTAT 109. Cannot be taken concurrently with PSTAT 109.*

**Repeat Comments:** *Econ 5 is an illegal repeat of PSTAT 109*

An introduction to probabilistic modeling and statistical inference applied to the analysis of economic data for students with basic knowledge of calculus. Topics covered include: probability, discrete and continuous random variables, probability distributions, mean, variance, correlation, sampling, parameter estimation, unbiasedness and efficiency, confidence intervals, hypothesis testing. Computing labs with Excel.

**HIST 22 – Technology and the Modern World (4 units)**

As much as religion or politics, technology has played a central, yet often overlooked role, in the shaping of the modern world. This lower-division undergraduate course presents a social history of technology from roughly the 17th century to the early 21st century. This course is based around a framework of the individuals, issues, and ideas that shaped the development of different technologies and the ways these interacted with one another across time, space, and peoples. In studying this history, we do not accept technology uncritically. Rather, we learn how its use has acted as a powerful force in modern society.

**PHYS 20AL – Experimental Physics (2 units)**

*Prerequisite: Physics 2 or 22; Physics 3 or 23 (may be taken concurrently).*

*Enrollment Comments: Quarters usually offered: Fall. Not open for credit to students who have completed Physics 3L, Physics 13AH, Physics 13AL or Physics CS 15A.*

Introduction to Measurement and Experimentation. Basic good practices in note-taking, data collection, data visualization, error estimation, error propagation, curve fitting, and drawing conclusions, all exercised in the context of phenomena from mechanics and electronics.

**PHYS 20BL – Experimental Physics (2 units)**

*Prerequisite: Physics 3 or 23 and 20AL; Physics 4 or 24 (may be taken concurrently).*

*Enrollment Comments: Quarters usually offered: Winter. Not open for credit to students who have completed Physics 4L, Physics 13BH, Physics 13BL or Physics CS 15B.*

Introduction to Measurement and Experimentation, continued. Basics of image analysis, technical drawing, additive manufacturing, oscilloscope use, searching and digesting scientific literature, as well as continued practice of skills introduced in 20AL in the context of electromagnetic and optical phenomena.

**PHYS 20CL – Experimental Physics (2 units)**

*Prerequisite: Physics 4 or 24 and 20BL; Physics 5 or 25 (may be taken concurrently).*

*Enrollment Comments: Quarters usually offered: Spring. Not open for credit to students who have completed Physics 5L, Physics 13CH, Physics 13CL, Physics 25L or Physics CS15C.*

Introduction to Measurement and Experimentation, with an emphasis on Scientific Communication and Experimental Design. Searching the scientific literature, reading a scientific paper, proposing and executing a measurement, and formally reporting on a measurement in writing, as well as continued practice of skills introduced in 20AL and 20BL in the context of modern physics phenomena.

**PHYS 29 – Introduction to Computer Programming for the Physical Sciences (2 units)**

*Prerequisite: Mathematics 2B or 3B (may be taken concurrently) or AP Calculus BC Exam with a score of 3 or better*

*Enrollment Comments: Quarters usually offered: Winter, Spring, Summer, Fall.*

An introduction to programming and data analysis for the physical sciences. Topics include syntax, good coding practice, basic algorithmic structure, plotting, basic data analysis, numerical root-finding and integration.

### **COURSE CHANGES**

BL ST 1	Introduction to African-American Studies Changed from 4 units to 5 units (effective W21)
CLASS 39	Gender and Sexuality in Greece and Rome Changed from 4 units to 5 units
EACS 47	Title changed to: Introduction to Daoism (still 4 units) (formerly: Introduction to Taoism)
ENGL 50	Title changed to: Introduction to Comparative Ethnic Literatures (still 4 units) (formerly: Introduction to U.S. Minority Literature)
PSTAT 5A	Title changed to: Understanding Data (still 5 units) (formerly: Statistics)
RG ST 47	Title changed to: Introduction to Daoism (still 4 units) (formerly: Introduction to Taoism)

### **TERMINATED COURSES**

**ITAL 26**      Advanced Grammar and Composition  
(It had no articulations)

**MCDB 1AL, MCDB 1BL, EEMB 2L, and EEMB 3L** are still offered at UCSB for UCSB students who started taking the biology major prep series before F19, but they have been replaced by MCDB 1LL and EEMB 2LL. I'm not removing them from the curriculum list yet.

**MCDB 1AL**      Introductory Biology Laboratory I  
**MCDB 1BL**      Introductory Biology Laboratory II (same as EEMB 2L)  
**EEMB 2L**        Introductory Biology Laboratory II (same as MCDB 1BL)  
**EEMB 3L**        Introductory Biology Laboratory III

**PHYS 20** is still offered at UCSB for UCSB students who started before F21, but the physics series for the Physics BA & BS has changed and no longer includes PHYS 20. I'm not removing it from the curriculum list yet.

## HIBERNATED COURSES

Hibernated courses are not officially discontinued, but they are not currently offered and do not appear in the catalog.

ART 21	Introduction to Integrated 2D Digital Media (4) Hibernated since F13
AS AM 3	Asian American Personality and Identity (4) Hibernated since M11
EEMB 23	Human Development and Reproductive Physiology (4) Hibernated since M13
MATH 15	Precalculus (4) Hibernated since F12
PHIL 6	Professional and Business Ethics (4) Hibernated since S13
THTR 3	Life of the Theater (4) Hibernated since F11
THTR 7	Performance of the Human Body (4) Hibernated since S15
THTR 8	European Theater History (4) Hibernated since S12
THTR 21	Stagecrafts (2) Hibernated since S15
THTR 26	Stage Makeup (2) Hibernated since S13
THTR 27B	Theater Drafting (2) Hibernated since S15