### Bachelor of Science in Environmental Science
#### Catalog Year 2023-2024

This flowchart provides guidance on what order to take your major courses due to prerequisites. The flowchart and course roadmap together can help you plan out your major requirements. Note that they do not replace meeting with an advisor!

#### Flowchart:

- **FALL, YEAR 1**
  - MATH 120 or MATH 125 (PRECALCULUS OR PRECALCULUS W/ ALGEBRA)
  - ENSC 280 (HUMANS AND THE ENVIRONMENT IN CALIFORNIA)
  - CHEM 111 (GENERAL CHEMISTRY I)
  - CHEM 112 (GENERAL CHEMISTRY II)
  - MATH 130 (CALCULUS I)

- **SPRING, YEAR 1**
  - ENSC 260 / GEOG 225 (INTRODUCTION TO GIS IN EARTH AND ENVIRONMENTAL SCIENCES)
  - ENSC 240 (ENVIRONMENTAL BIOLOGY)
  - PHYS 125 (PRINCIPLES OF PHYSICS I)

- **FALL, YEAR 2**
  - ENSC 241 (ENVIRONMENTAL BIOLOGY LABORATORY)
  - PHYS 126 (PRINCIPLES OF PHYSICS II (F/SP))
  - STAT 303* (STATISTICAL METHODS IN BIOLOGY)

- **SPRING, YEAR 2**
  - ENSC 407 (SPECIAL TOPICS IN ENV SCIENCE)
  - PHYS 125 (PRINCIPLES OF PHYSICS I)
  - ENSC 407 (SPECIAL TOPICS IN ENV SCIENCE)

- **FALL, YEAR 3**
  - ENSC 414 (HAZ. WASTE MANAGEMENT)
  - ENSC 420 (GLOBAL CHANGE)
  - ENSC 497 (SPECIAL TOPICS IN ENV SCIENCE)

- **SPRING, YEAR 3**
  - ENSC 410 (ENVIRONMENTAL IMPACT ANALYSIS)
  - DEPTH ELECTIVE (SEE PAGE 2 FOR COURSE LIST)
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- **FALL, YEAR 4**
  - BIOL 350* (ECOLOGY)
  - UPPER DIVISION ENV POLICY ELECTIVE (SEE PAGE 2 FOR COURSE LIST)
  - ENSC 410 (ENVIRONMENTAL IMPACT ANALYSIS)

- **SPRING, YEAR 4**
  - ENSC 350 (ENVIRONMENTAL HYDROLOGY)
  - GEOL 432 (HYDROGEOLOGY)

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#### Key:
- **COMPLETE ALL LOWER DIVISION REQUIREMENTS**
- **COMPLETE ONE COURSE IN EACH CATEGORY OF ELECTIVES: ENV POLICY, SYSTEM, AND HYDROLOGY**
- **COMPLETE ALL UPPER DIVISION REQUIREMENTS**
- **COMPLETE 3 DEPTH ELECTIVES (9-11 UNITS)**

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*RECOMMENDED

**CO-REQUISITE COURSES**

*REQUIRES ADDITIONAL PRE-REQUISITES, SEE CATALOG FOR MORE DETAILS

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### Intro and Advanced Field Experience:
(Take both courses. See course details on page 2.)

- **ENSC 297** (INTRODUCTORY FIELD EXPERIENCE)
  - CURRENTLY OFFERED IN FALL TERMS
- **ENSC 397** (ADVANCED FIELD EXPERIENCE)
  - CURRENTLY OFFERED IN SUMMER TERMS
Upper Division Env. Policy Elective (Take ONE in Y3 or Y4 when offered)

Pre-Requisites:
- ECON 200 AND ECON 205

GE Breadth Area Fulfilled:
- ECON 360: Environmental Economics
- ENGL 342: Environmental Literature (UD-C, Sustainability Overlay)
- ENVT 330: Environment, Sustainability, and Social Justice (UD-D, Sustainability Overlay)
- PH 340: Climate Change, Health, and Equity (UD-D, Social Justice Overlay)
- SOC 330: Environmental Sociology (UD-D, Sustainability Overlay)
- POSC 411: Public Policy and the Environment (Sustainability Overlay)
- POSC 344: Environmental Law

Upper Division Status and Completion of GE Areas A1, A2, A3, and B4

Depth Electives (Complete 9-11 units when offered)

Pre-Requisites:
- PH 300: Environmental Health
- CHEM 220: Quantitative Analysis
- CHEM 331: Organic Chemistry I
- CHEM 112
- GEOL 360: Mineralogy & Optical Crystallography
- GEOL 311: Geomorphology
- GEOG 225
- GEOL 361: Sedimentary Geology and Stratigraphy
- PH 460: Emergency Preparedness & Response
- CHEM 331
- CHEM 425: Environmental Chemistry
- BIOL 330: Microbial Ecology
- BIOL 433: Biology of Fungi
- BIOL 454: Biotechnology

These courses have pre-requisites that are included in the ENSC major or GE requirements.

Intro/Advanced Field Experience Details

- ENSC 297: Introductory Field Experience
  - Offered once a year, currently in Fall terms
  - Students spend 1 full day/week in a natural, outdoor laboratory setting
  - Applied field-based inquiry activities to introduce fundamental field skills that are common to field research in geology and environmental sciences

- ENSC 397: Advanced Field Experience
  - Offered once a year, currently in Summer terms
  - Students spend two weeks (overnight stay) in a natural, outdoor laboratory setting
  - Applied field-based inquiry activities to develop advanced field skills that are common to field research in geology and environmental sciences

Any UD science course that does NOT also count for GE can be approved as a depth elective substitute with department permission.