B.S. in Environmental Science

The UCLA Institute of the Environment and Sustainability, together with the Departments of Atmospheric and Oceanic Sciences, Civil and Environmental Engineering, Earth and Space Sciences, Ecology and Evolutionary Biology, Environmental Health Sciences and Geography, is pleased to offer an innovative dual-component degree program in Environmental Science.

The first component, the Environmental Science Major, provides students with disciplinary breadth in areas important to environmental science. The second component, a Minor in one of seven environmental science areas, provides students with focused, disciplinary depth in an area of their choosing. Both components of the program must be completed to receive the degree.

Graduates of this program will be fully prepared to enter a career in environmental science or to continue their education in a graduate degree program.

I. Environmental Science Major

Preparation for the Major (57-63 units)

- Environment 10 [recommended in first or second year of program]
- Geography 7

Note: Where two options are listed, the first option is recommended. Ideally students will complete the majority of the preparation courses by the end of the 2nd year.

- Chemistry 14A/B/BL or Chemistry 20A/B/L
- Life Science 7A and Life Science 7B
- Mathematics 3A/B or Mathematics 31A/B or Life Science 30A/B
- Physics 5A/C or Physics 1A/B
- Statistics 12 or Statistics 13 or Life Science 40

One additional course from the following choices, depending on the Minor/Concentration selected (see Minor/Concentration on back side of this sheet):

- Chemistry 14C or Chemistry 30A
- Mathematics 3C or Mathematics 32A
- Physics 5B or Physics 1C
- Life Science 7C and Life Science 23L
- Earth Planetary & Space Sciences 1

Major requirements (50-52 units)

Note: Where a course is listed in multiple categories, it may be used in one or the other, but not both.

Physical & Life Sciences (5 courses, 20-22 units)

One required course

Environment 175 (recommended in 3rd year)

Choice of four courses from list, with no more than two courses from any one department:

Atmospheric and Oceanic Sciences 101, 102, 103, 104, M105, 107, 112, 130, 141
Chemical Engineering C118
Civil & Environmental Engineering 153, 154, M166
Earth Planetary and Space Sciences 101, C113, 119, 139, 150, 153
Ecology and Evolutionary Biology 100, 109, 116, 151A, 154
Environment 121, 157
Environmental Health Sciences 100, C125, C152D, C164
Geography 101, M102, M103, 107, 116, 117, M118, 120, M126, 133

Social Sciences & Humanities (3 courses, 12-13 units)

One required course

Environment 140 (recommended in 2nd year)

Choice of two courses from list:

Environment M125, M133, 134, M135, 150, M153, 157, 159, 160, M161, 162, 163, M164, 166, M167
Geography M127, M142, 160, 171C
Philosophy 125
Public Policy C115

Sustainability Talks (2 units) 2 terms of Environment 185A

Environmental Science Practicum (3 courses, 14 units) Environment 180A/B/C

For further guidance in course selection, please see: ioes.ucla.edu/envisci/course-requirements
II. Minor/Concentration

Students choose one of eight minors/concentrations, each associated with a particular department.

Students will normally choose their minor/concentration by the end of their second year. Students choosing one of the seven minors must, with assistance from IoES staff, apply to the associated department to be accepted into the minor program.

A minimum of 20 units must be unique to each minor.

**Atmospheric and Oceanic Sciences**

Minor, Dept. of Atmospheric and Oceanic Sciences

Additional preparation required: Mathematics 3C or 32A or Physics 5B or 1C or Chemistry 14C or 30A

Requirements: (7 courses, 28-31 units, two course overlap possible)
- Three from Atmospheric and Oceanic Sciences M100, 101, 102, 103, 104, M105, M106, 107, C110, C115, M120, 125, 130, M140, 141, 145, 150, C160, C170, 180, CM185
- Four additional courses (two of which must be upper-division) from any of the above AOS courses beyond the minimum three required or from: Atmospheric and Oceanic Sciences 1, 2, 3, 186 (186 must be taken twice); Chemistry & Biochemistry 103, 110A, 110B, 113A, C113B, 114; Earth Planetary & Space Sciences 15; Mathematics 115A, 115B, 132, 135, 136, 146, 170A, 170B; Ecology & Evolutionary Biology 109, C119, 122, 123A or 123B, 147, 148; Physics 110A, 110B, 112, M122, 131, 132

** Conservation Biology**

Minor, Dept. of Ecology and Evolutionary Biology

Additional preparation required: Chemistry 14C or 30A or Life Science 7C/23L

Requirements: (7-9 courses, minimum 28 UD units, two course overlap possible)
- Ecology and Evolutionary Biology 100, and 116 or (Environment 121)
- Four to six (minimum 19 units) from Ecology and Evolutionary Biology 100L, 101, 103, 105, 109, 109L, 111, 112, 114A, 114B, C119A, C119B, 122, M127, 129, M131, 151A, 152, 153, 154, 155, 162, 162L, C174 176, 180A, any course completed from Field or Marine Biology Quarter or approved equivalent; Geography 102, 104, M107, 113, M115, M131, 135 (maximum of two Geography courses can be applied to the minor)

**Environmental Engineering**

Minor, Dept. of Civil and Environmental Engineering

Additional preparation required: Mathematics 3C or 32A

Requirements (6 courses, 24 units, one course overlap possible)
- Civil and Environmental Engineering 153
- Five from Civil and Environmental Engineering 110, 150, 151, 152, 154, 155, 156A, 156B, 157A, 157B, 157C, 157L, C159, 163, 164, M165, M166, Chemical Engineering 102A, C118; Mechanical & Aerospace Engineering 103, 105A,
- *Credit for both MAE 105A & CH ENGR 102A will not be granted*

**Environmental Health**

Concentration, Dept. of Environmental Health Sciences

Additional preparation required: Chemistry 14C or 30A

Requirements (6 courses, 24 units, one course overlap possible)
- Environmental Health Sciences 100 and C135 or 185A and 185B
- Epidemiology 100
- Three from Chemistry 153A; Environmental Health Sciences C125, C140, C152D, C157, C164, M166

**Environmental Systems and Society**

Minor, Institute of the Environment

Additional preparation required: One from Chemistry 14C or 30 A, Mathematics 3C or 32A, Physics 5B or 1C, Life Science 7C/23L, EPSS 1

Requirements (7 courses, 28-30 units, two course overlap possible)
- Seven from Environment M111, 121, M125, M126, M131, M133, 134, 150, M153, 157, C159, 160, M161, 162, 163, M164, 166, M167, 185 SAR series

**Geography/Environmental Studies**

Minor, Dept. of Geography

Additional preparation required: One from Chemistry 14C or 30 A, Mathematics 3C or 32A, Physics 5B or 1C, Life Science 7C/23L, EPSS 1

Requirements (7 courses, 30 units, two course overlap possible)
- Geography 5
- One from Geography 1, 2, 3, 4, 6
- Two additional upper division Geography courses, excluding those from the preceding list and courses 190-199

**Earth and Environmental Science**

Minor, Dept. of Earth, Planetary, and Space Sciences

Additional preparation required: Mathematics 3C or 32A or Physics 5B or 1C or Chemistry 14C or 30A

Requirements (6 courses, 24 units, two course overlap possible)
- Earth Planetary and Space Sciences 1, and one course from 5, 13, 15, 61.
- Five courses from Earth and Space Sciences 101, 112, C113, 139, 150, 153 (consult with EPSS department for other applicable courses)