

ENVIRONMENTAL SCIENCE, MASTER OF SCIENCE

Degree Requirements (30 units)

The M.S. in Environmental Science requires completion of 30 units, at least 21 of which must be at the graduate (500-level).

Code	Title	Hours
Required Courses		
ANT 555	People, Culture and the Environment	3
BIO 502	Biostatistics	3
BIO 510	Urban Environmental Science	3
GEO 433	Environmental Analysis	3
ENV 590	Graduate Seminar ¹	1-3
ENV 598	Directed Research	1-3
Electives ²		
Select two elective courses from the following list:		6
BIO 416	Landscape Ecology	
CHE 474	Geochemistry	
GEO 405	Advanced Cartography	
GEO 408	Remote Sensing and Image Processing	
GEO 412	Rivers and Streams	
GEO 415	Geographic Information Systems	
GEO 416	Earth's Climates	
GEO 420	Natural Resources	
SOC 408	Survey Research	
Internship Track		
ENV 596	Internship in Environmental Science	3
Thesis Track		
ENV 599	Thesis	3
Total Hours		26-30

¹ For students enrolled in the Thesis and Internship Options, ENV 590 Graduate Seminar must be taken at least twice; 1-2 units each

² In consultation with an academic advisor, each student will select 2 elective courses from the following list. Elective courses will be selected that best suit the academic background and career goals of the student. Other courses may be substituted with the approval of the academic advisor and Program Coordinator.

Options

Thesis

A written thesis, based on an original research project in environmental science, and an oral defense of the thesis are required for completion of the degree.

Each student must select a thesis advisor and two faculty to serve as the graduate thesis committee. When additional expertise is required, a member may be from another institution, but at least two committee members, including the Chair, must be full-time CSUDH faculty.

The student in consultation with his or her major advisor will prepare a research proposal along with a time line to completion. The proposal must outline the problem, its significance, and the methods to be employed to collect and analyze data. The proposal must be approved

by the two other members of the thesis committee and submitted to the Program Coordinator.

The thesis will be evaluated on the basis of originality, critical and independent thinking, appropriate organization and format, and thorough documentation. Upon the completion and acceptance of the thesis, the student and advisor will arrange for an oral defense of the thesis. This ordinarily takes the form of a seminar to which the faculty, students and public are invited to attend.

Internship

A culminating report and portfolio are required for completion of the degree.

Each student must obtain faculty approval for each of the internships. Faculty supervisor must be full-time CSUDH faculty, but when additional expertise is required, an additional supervisor may be from another institution or from the part-time faculty. Each internship must focus on the student's intended field of study within the field of Environmental Science and should guide the student to completing a final culminating report.

The student, in consultation with both their faculty advisor and internship supervisor will prepare a final written report detailing skills learned, tasks accomplished, and/or research conducted. The written report must detail environmental methods used during the internship and explain to others how to complete the tasks undertaken.

The culminating written report will be evaluated on the basis of originality, critical independent thinking, appropriate organization and format, and thorough documentation. Upon completion and acceptance by the faculty advisor, the student is required to present the material at a conference.

Continuing Student Status

Students must maintain continuous enrollment throughout the graduate program and during the semester they graduate. Students who miss a semester must reapply to the university and to the program. Students who have completed all course work and are working on their thesis may enroll in ENV 600 Graduate Continuation Course, or equivalent, to maintain continuous attendance.

Grades

An overall "B" average is required in courses in the student's program and all courses must be passed with a grade of "B-" or above.

Policy on Revalidation of Outdated Course Work

All course work taken in the master's degree program must be completed within the five years immediately preceding the date of graduation. Revalidation of outdated course work may be requested from the University Graduate Studies Office through the Environmental Science Program Coordinator. Outdated course work means courses that were completed between five and seven years immediately preceding the date of graduation. The request must be accompanied by a petition from the program Coordinator that verifies that the student has done one of the following:

- repeated the course and passed it with a grade of B or better;
- taken the exams and completed the assignments of the course as it is currently offered and earned a grade of B or better;

- taken and passed a written comprehensive exam which covers the course contents.

workforce, and can be used as examples of the knowledge and expertise that they could bring to prospective employers.

Classified Standing

If a student has been admitted to Conditionally Classified status he or she must fulfill the conditions for Classified standing by the end of the first year after admission. The student must submit an Application for Classified Standing to the Dean of Graduate Studies, who will forward the request to the Environmental Science Coordinator. To receive classified standing, the student must have:

- completed all prerequisite courses and requirements including the GWAR;
- a grade point average of 3.0 or better in all courses taken at CSUDH and received a grade of B- or better in all courses.

Advancement to Candidacy

An application for advancement of candidacy is submitted when the student has completed most of the course work. Application is made through the Program Coordinator and must be done before the student can submit the thesis or culminating written report. This application will list the student's program of courses and other requirements which must be completed for the degree.

The Program coordinator send the advancement to candidacy form to the College Dean and Graduate Dean who forwards it to the graduation unit of the Registrar's Office. It is used for the degree check after the student has submitted an Application for Graduation from the Office of the Registrar.

University Requirements

In addition to the program requirements, students must meet all university requirements for the master's degree. Students should consult the section of the catalog entitled "Requirements for the Master's Degree (<https://catalog.csudh.edu/general-information/graduate-degree-postbaccalaureate-studies/>)."

Program Learning Outcomes

1. **Environmental Literacy.** Students will demonstrate their knowledge of, and the ability to analyze, diverse environmental problems representing the local, state, national and international spatial scales.
2. **Environmental Multidisciplinary.** Students will demonstrate their understanding of the complexity of environmental processes and problems, and an understanding of why environmental science is a multidisciplinary endeavor that draws from the natural and social sciences.
3. **Written and Oral Communication.** Students will demonstrate their ability to describe research and to summarize research results in essays, written reports and oral presentations.
4. **Scientific Research.** Students will perform in-depth scientific research, incorporating literature reviews; hypothesis formulation and testing; data collection and analysis, and critical reasoning.
5. **Thesis Writing.** Students will demonstrate the ability to author an original, in-depth, scientific research monograph (the thesis).
6. **Professional Preparation.** Students will work on research projects and hone research skills toward their mastery of environmental science, particularly in the urban setting. The thesis research project prepares students for doctoral programs and/or the environmental