

Hydrologic Sciences & Policy (B.S.) Worksheet 2024-25

LOWER-DIVISION / PREPARATION IN MAJOR (1st and 2nd years)

ENVS 1 or 3 (F & W qtr)*
and
ENVS 40 (W qtr)*

Economics:
ENVS 30 (F qtr)* or
Economics 1 or 2 or 9

Earth Sci. 2

Geography 4

Biology & Ecology:

MCDB 1A (F, Sum qtrs)*
MCDB 1B (W, Sum qtrs)*
MCDB 1LL (W, Sum qtrs)*
EEMB 2 (W, Sum qtrs)*
EEMB 2LL (S, F qtrs)*
EEMB 3 (S, F qtrs)*

Statistics:

PSTAT 5A or 5LS

CHEM 1A 1B 1C
and 2AL, 2BL
(or 1AL-1BL-1CL) Ends 2024

Quantitative Skills:

Math 3A or 2A
Math 3B or 2B
Math 4A
Math 4B

Physics:

Physics 6A/AL
Physics 6B/BL
Physics 6C/CL

----- OR -----

Physics 7A
Physics 7B
Physics 7C + L
(or Phy. 1, 2, 3, 3L) This series to
be discontinued at end of 2024

Advanced Placement (AP), International Baccalaureate (IB) and Transfer credit may be substituted for requirements above!
Review your *Course History/Profile* on GOLD for automatically articulated credit or see the ES Advisor for assistance.

UPPER-DIVISION (3rd and 4th years) - Total of 56 units required!

A. U.D. REQUIRED COURSES (21 UNITS)

ENVS 102 (F qtr)* ENVS 144[^] (S qtr)* ENVS 163A (F qtr)* ENVS 164 (193SW) or 193DS (S qtr)*
Geography 116/Earth Sci. 173 (5 unit course) (W qtr)*

B. REQUIRED U.D. THEMED CLUSTERS (24-25 UNITS)

Complete one course from each of the following six clusters of courses. One additional course from each cluster, excluding #3, may apply to Area C if desired. [^] denotes course is cross-listed with another dept.

1. **Water Policy, Management, and Society:** ENVS 138[^], 163B, 193TW
2. **Water Quality:** ENVS 162[^], 168[^], 169[^]
3. **Intro to GIS:** Earth Sci. 176; ENVS 154; GEOG 176C (5 units & GEOG 176A-B from Area C are prereqs.)
4. **Soil and Ecology:** EEMB 120, 148, 168; ENVS 101, 114A[^], 128[^], 133[^], 171[^]
5. **Climate and Environmental Justice:** ENVS 116, 130A, 134CJ[^], 180, 181, 186, 188
6. **Field Studies:** ENVS 114B[^] (ENVS 114A[^] is a prerequisite), 119[^]; GEOG 112

C. U.D. ELECTIVES (10-11 UNITS)

Any units from the following list of electives and/or one additional course from any cluster in Area B, excluding #3 (Intro to GIS), may be used to bring the total number of UD units completed in the major to 56:

Earth Science 106, 113, 114, 117, 130, 131, 134, 164B, 175;
Environmental Studies 145, 190, 192, 195A-B-C, 197, 199, 199RA;
Geography 110, 115A-B-C, 119, 133, 134, 137, 142, 172, 175, 176A-B, 178

*Note: No more than 8 units combined and 4 units each from
ENVS 192, 199, 199RA may apply.*

Study Abroad or Environmental Field Studies units may be used to satisfy part or all of Area C, and potentially parts of Area B and A. They need to be hydrology related, U.D., and approved by petition. Consult an ES Academic Advisor for more information before pursuing one of these options: <https://www.es.ucsb.edu/advising>

Elective Courses:	Units:
1. _____	_____
2. _____	_____
3. _____	_____
4. _____	_____
Total = _____	

Need 11 units unless completed GEOG 176C in Area B-3; then need just 10.

NOTE: All courses, including cross-listed (either version), may apply to one area only in any part of the major. Courses taken to fulfill any major requirement must be taken for a letter grade unless only offered P/NP.

* Denotes specific quarter a course is to be offered; accurate for current academic year ONLY & subject to change year to year

>>> See the other side for more info <<<

The Environmental Studies Program (ES) at UCSB offers three undergraduate degrees. The two majors in Environmental Studies (B.A. & B.S.) addresses the interdisciplinary relationships needed to understand today's complex environmental problems by focusing on understanding the interrelationships between the humanities, social sciences, and natural and physical science disciplines. A third major in Hydrological Sciences and Policy (B.S.) provides students with the specific scientific training and a fundamental background in policy needed to understand and solve complex hydrologic problems at local, regional, and global levels. Hydrology is a science dealing with the occurrence, circulation, distribution, and properties of the waters of the solid earth and its atmosphere. Many of the significant environmental problems that society is facing today are related to hydrologic or water issues.

The Bachelor of Science Degree (B.S.) in Hydrologic Sciences & Policy, shown on the reverse-side, provides a rigorous scientific framework for students to examine the hydrologic process in our environment. Although the program is housed within Environmental Studies, the curriculum for this degree is offered cooperatively by the departments of Ecology, Evolution, and Marine Biology, Chemistry and Biochemistry, Geography, Earth Science, Political Science, and History. Lower-division courses concentrate on the physical and natural sciences along with a couple social science and policy courses. In the upper-division, students complete a core group of required hydrology related courses from multiple departments (Area A) and then selects one of the following three emphases to complete their upper-division requirements: biology and ecology, physical and chemical sciences, or policy.

Learn more about the Hydrology degree and download a *Four Year Plan to Complete the Major* at:

www.es.ucsb.edu/degrees

Declaring The Hydrology Major: Hydrologic Sciences and Policy major does not have a "pre-major" or require one to complete the entire Preparation for the Major before they can declare. However, to affirm one feels confident HYDRO is the right major for them we ask students complete at least a minimum of three of the lower-division Preparation for the Major courses before submitting their change of major petitions. Exceptions for those who are currently enrolled in one of the above courses or for other extreme circumstances may be considered. There's no minimum GPA requirement to declare, but one should be in good academic standing with at least an overall GPA of 2.0 or higher.

The process for declaring starts by visiting the following webpage: www.es.ucsb.edu/declaring-major

You will be asked to select and review the appropriate major/degree for you and complete the *College Change of Major Petition* online via DocuSign. Those declaring a double major will follow a slightly different procedure and must also complete the *Memo of Understanding for Double Majors*. You will save the completed forms and submit them electronically following the instructions provided via DocuSign.

The change of major process takes on average four weeks to be completed. An email will be sent to you once Environmental Studies has processed the necessary forms and forwarded them to the College or Registrar for final review. You will need to regularly check GOLD to see when your change of major has been finalized.

If you have any questions about how to declare the ES major contact an Environmental Studies Academic Advisor here: www.es.ucsb.edu/advising or by email at: advising@es.ucsb.edu

DON'T BE THE LAST TO KNOW - Subscribe to *ESmail*, the ES Program's Student Email Newsletter Service! If you're a HYDO major, or considering becoming one, you should immediately subscribe to the ES Program's *ESmail* listservice (use your UCSB or any outside email address). Managed by the ES Academic Advisor, this free email service is open to anyone interested in staying up-to-date on what's going on within Environmental Studies. One to two email messages are posted each week containing important information such as: upcoming campus deadlines, schedule of classes updates, scholarship opportunities, internship and job listings, special environmental events and lectures, and much more. One may unsubscribe from the service at anytime. **To subscribe visit:** www.es.ucsb.edu/mailing-lists and follow the posted directions.