

## Hydrologic Sciences & Policy (B.S.) Worksheet 2022-23

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

**Social Science:**

Env. St. 3 (S qtr)\* **or**  
Pol. Sci. 12

**Economics:**

Env. St. 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/AL

Chem 1B/BL

Chem 1C/CL

**Quantitative Skills:**

Math 3A **or** 2A

Math 3B **or** 2B

Math 4A

Math 4B

Physics 1 *This series is  
Recommended*

Physics 2

Physics 3/3L

**OR**

Physics 6A/AL

Physics 6B/BL

Physics 6C/CL

**History & Policy:**

History 5 **or** 7

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)

#### A. U.D. REQUIRED COURSES (25 UNITS)

Geography 112 (F qtr)\*

Earth Sci./Env. St. 168 or 169 (S qtr)\*

Geography/Env. St. 144 (W qtr)\*

Geog. 116/Earth Sci. 173 (W qtr)\*

Env. St. 163A (F qtr)\*

EEMB 120† or Env. St. 101 (S qtr)\*

#### B. COMPLETE ONE OF THE FOLLOWING THREE EMPHASES (31 UNITS)

**Biology and Ecology:**

Required: Env. St./EEMB 128, 171, and EEMB 148..... 12 units \_\_\_\_\_

† It's highly recommended students pursuing this emphasis take EEMB 120 in Area A.

19 units from the following: EEMB 117, 119, 120AL-BL, 142B-BL-C-CL, 153, 167, 168, 186;

Environmental Studies 103A, 149, 154, 163B, 176A, 176B, 190, 192, 197, 199, 199RA;

Geography 114A-B, 162, 176A-B-C; Earth Sci. 114, 117, 125, 168 or 169 (if not used above), 176.. 19 units \_\_\_\_\_

**Physical and Chemical:**

Required: Env. St./Geography 114A, 162 and Earth Sci. 114, 117 ..... 17 units \_\_\_\_\_

14 units from the following: Chemistry 109A-B-C, 113A-AL-B-C, 123, 150; EEMB 142B-BL, 167,

168, 186; Environmental Studies 119, 128, 149, 154, 163B, 176A-B, 190, 192, 197, 199, 199RA;

Earth Sci. 102A-AL-B-BL-C, 103, 104A, 113, 122, 124AA-ZZ, 125, 130, 168 or

169 (if not used above), 176; Geography 110, 114B, 134, 166, 176A-B-C; ..... 14 units \_\_\_\_\_

**Policy:**

Required: Env. St. 174, 188; Env. St. 173/History 173T; Env. St. 178/Political Science 175 ..... 16 units \_\_\_\_\_

15 units from the following: EEMB 142B-BL, 186; Environmental Studies 119, 128, 149, 154, 163B,

176A-B, 190, 192, 197, 199, 199RA; Earth Sci. 125, 176; Geography 135, 135S, 162, 176A-B-C;

History 172A-B, 176A-B; Political Science 177 ..... 15 units \_\_\_\_\_

**Note:** Env S 192, 197, 199, and 199RA must be selected in consultation with the department undergraduate advisor as course material must relate to your hydrologic sciences emphasis. Up to 4 units each of the Env S 192, 199, and 199RA courses, and No more than 8 units combined, can be applied to the major.

**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 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](http://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, we do hope one feels confident ES is the right major for them and ask students complete at least one of the lower-division introductory ES courses (ENV S 1, 2, or 3) and a minimum of two other lower-division Preparation for the Major courses before submitting their change of major paperwork. Exceptions for those who are currently enrolled in one of the above courses or for other extreme circumstances will be considered. There's no minimum GPA requirement to declare, but a one should be in good academic standing (overall GPA of 2.0 or higher).

The process for declaring starts by visiting the following webpage: [www.es.ucsb.edu/declaring-major](http://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 on the webpage and DocuSign.

The change of major process takes on average three to five weeks to be completed. An email will be sent to you once Environmental Studies has processed the necessary forms. They are then 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](http://www.es.ucsb.edu/advising) or by email at: [advising@es.ucsb.edu](mailto:advising@es.ucsb.edu)

**DON'T BE THE LAST TO KNOW - Subscribe to *ESmail*, the ES Program's Student Email Newsletter Service right away!** If you're a ES major, or considering becoming one, you should immediately subscribe to the ES Program's *ESmail* listserv (use your UCSB or any outside email address). Managed by the 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/mailling-lists](http://www.es.ucsb.edu/mailling-lists) and follow the posted directions.