The B.A. vs. B.S. Degree in Environmental Studies at UCSB

If you're thinking about pursuing Environmental Studies (ES) at UC Santa Barbara, the first important decision you must make is choosing which degree to pursue: the Bachelor of Arts (B.A.) or Bachelor of Science (B.S.) in Environmental Studies. While both majors are similar in design and stress the importance of understanding the complex interrelationships between the humanities, social sciences, and natural science disciplines, having two-degree options allows maximum flexibility to choose a major that best fits one's environmental interests and long-term goals. In this document we provide a detailed comparison of the academic requirements of the B.A. and B.S. major so one can understand the differences and make an educated decision. We have also highlighted a few example job/career paths each degree might lead to. No matter which degree you choose, remember, your decision should be based on what you believe will ultimately make you happy. *Be sure to visit the ES website to learn more about Environmental Studies at UCSB and our degrees at: **es.ucsb.edu**.*

Simply put, the **B.A. degree in ES** is the more interdisciplinary major, requiring a swath of introductory courses in the humanities, social, physical, and natural sciences. It stresses the importance of comprehending basic social, cultural, and scientific theories, understanding how they interact with one another, and play a part in addressing every environmental issue. While this degree assures one will be "science literate," it also offers maximum flexibility to select ES electives and outside concentration courses from just about every academic discipline at UCSB, including: arts, policy, culture, languages, humanities, and economics to name just a few.

The goal of the **B.S. degree in ES** is to train students to become proficient in the natural and physical sciences while still being aware of and understanding the important role social and cultural influences have on addressing environmental problems. The major curricular differences from the ES B.A. degree are an increased number of chemistry, calculus, biology, and physics courses required in the lower-division and many of the ES electives and the outside concentration requirements are focused on the physical and natural science disciplines (STEM). This is done to enhance the B.S. student's ability to apply scientific concepts in solving environmental problems. *Please see the reverse side for a comparison of B.A. vs. B.S. degree requirements.*

What are the general employment differences between B.A. and B.S. majors?
Employment options vary widely depending on individual coursework taken by each student. However, as some career fields are heavily dependent on a strong scientific background, those who pursue the B.S. degree would likely be more qualified for more scientific/technical opportunities because of their science proficiency and experience in field and laboratory techniques. While B.A. majors earn a solid foundation in the sciences, they often develop a higher degree of writing and communication skills and a stronger background in social, political, and economic issues that often lead to careers in planning, law, advocacy, education, journalism, media, sustainability, and business. Below is a short array of jobs/careers an ES major might pursue based on their degree. But this is far from a comprehensive list. Also know there are countless examples of ES B.A. alumni securing "science" jobs and B.S. grads becoming lawyers, planners, & educators. *For more about environmental careers and helpful resources please visit: **es.ucsb.edu/environmental-careers**.*

B.A. Degree	Both	B.S. Degree
-- Urban/Regional Planning	-- Environmental Education	-- Pollution Monitoring, Control and Prevention
-- Green Business	-- Environmental Policy	-- Waste Management Specialist
-- Environmental Law	-- Sustainable Agriculture	-- Environmental Toxicology/Health
-- Non-government Organizing	-- Environmental Consulting	-- Field Scientist/Technician
-- Energy Consultant	-- Environmental Health and Safety Management	-- Conservation/Restoration Biology
-- Environmental Justice	-- Local/State/National Government	-- Renewable Energy Designer
-- Environmental Media, Communication Specialist	-- Computing and Information Technologies	-- Natural Resource Management
-- Sustainability Management	-- Environmental Activism	-- Environmental Engineering
-- Environmental Economist	-- Landscape Designer/ Architect	-- Soil Scientist
-- Parks/Recreation Management		-- Wildlife Biologist/Management
-- Waste Management		-- Environmental Risk Assessment
-- Environmental Historian		-- Air Quality Specialist

ENVIRONMENTAL STUDIES MAJOR REQUIREMENTS: B.A. vs. B.S.

LOWER–DIVISION FOR THE MAJOR (generally 1st and 2nd years)

Required Courses for Both B.A. and B.S.	UCSB Course(s)
Four introductory courses in Environmental Studies	Envs 1, 2, 3 **and** Envs 40
One intro micro, macro, or general/environmental Economics	Econ 1 or 2 or 9 or Envs 30
One general or physical Geography or Earth Science	Geog 3 or 4 or Earth Sci. 2 or 4 or 20
One introductory Statistics	Pstat 5A or 5LS or Econ 5
One introductory Ethics & Justice	Envs 70 or Blkst 4 or Femst 50 or Lingst 50 or Phil 4 or Pols 1

Different Lower-division Requirements: B.A. vs. B.S.

	B.A.	B.S.
Culture & Society	**One** course from broad list of options	**One** course from a <u>combined</u> list of Culture & Society and Policy and Politics courses
Policy & Politics	**One** course from list of options	
Math (calculus)	**Two** quarters: Math 34A or 2A or 3A **and** Math 34B or 2B or 3B **or** Envs 25 (*Quantitative Thinking in ES*)	**Two** quarters of Calculus w/applications: Math 3A-B (or 2A-2B)
Biology and Ecology	**One or Three** courses of intro Ecology/Bio: Envs 60 **or** MCDB 1A-1LL and EEMB 2	**Four** courses of fundamental Biology w/2 labs: MCDB 1A-1B-1LL and EEMB 2-2LL-3
Chemistry	**Two** courses + **One** lab: Chem 1A-1B-2AL **or** Envs 15A and 15B-BL (*Env Chem series*)	**Three** courses of Intro Chemistry + two labs: Chem 1A-1B-1C and 2AL and 2BL
Physics	**None**	**Three** quarters of introductory Physics: Phys 6A-AL, 6B-BL, 6C-CL **or** 7A, 7B, 7C-CL
	Total Lower-division Units = 71 to 78.5	***Total Lower-division Units = 97 to 99***

UPPER – DIVISION FOR THE MAJOR (3rd and 4th years)

Area	Bachelor of Arts (B.A.)	Bachelor of Science (B.S.)
A	**13** units of Required Upper-division ES courses: ENVS 190 (one unit seminar) **and** one course from each of three themed clusters of ES courses.	**17-18** units of Required Upper-division ES courses: ENVS 190 (one unit), **and** one course from each of three clusters of ES courses, **and** an additional upper-division statistics, data science, or modeling course.
B	**28** Upper Division ES Elective units: Any Environmental Studies courses #100-199 not used to satisfy Area A for a total of 28 units.	**32** Upper Division ES Elective units from two sections: • B-1: 20 UD ES units which must be taken from a list of environmental "science" courses (see major sheet) • B-2: 12 units from any ES course #100-199 not already used to satisfy the 20 units in B-1 or Area A
C	**16** Unit Outside Concentration: Complete any 16 upper-division units from any **one** College of L&S department or program (double major or official minor will satisfy this area). **OR** Choose an interdisciplinary concentration of courses from more than one department forming a coherent environmental emphasis of their choice. Students can use courses from any department/programs or abroad.	**16** Unit Outside Concentration: Complete any 16 upper-division units from **one** of the following STEM departments (dbl. mjr. or minor o.k.): Brain Science, Chemistry, EEMB and/or MCDB (bio), Geography, Earth Sci., Math, Statistics, or Physics. **OR** Choose an interdisciplinary concentration of courses from one or more of the departments listed above, forming a coherent environmental emphasis of choice.
By petition, upper-division **Study Abroad or Environmental Field Studies units** may be transferred and applied to satisfy part or the entire Area C - Outside Concentration. Up to 12 abroad units may also apply to the Area B Electives.		
	Total Upper-division Units = 57	***Total Upper-division Units = 65 to 66***

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BACHELOR OF ARTS (B.A.) WORKSHEET 2025-26

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

ENVS 1 (F or Sum qtrs)* ☐
ENVS 2 (S or Sum qtrs)* ☐
ENVS 3 (W or Sum qtrs)* ☐

ENVS 40 (F, W, S qtrs)* ☐

Ethics & Justice:
ENVS 70 (W qtr)* **or**
Black St. 4 **or** ☐
Fem.St. 50 **or** Ling. 50
or Phil. 4 **or** Pol.Sci. 1

Culture & Society:
Anthro. 2 **or** Geog. 5
or Global St. 1 **or** 2
or Psychology 1 ☐
or Relig. St. 1 **or** 14
or Sociology 1

Policy & Politics:
Hist. 5 **or** 7 **or** ☐
Poli. Sci. 6 **or** 7 **or** 12

Chemistry:
Chemistry 1A + 1B ☐ ☐
and 2AL ☐
- - - - - - - OR - - - - - - -
ENVS 15A (W qtr)* **and** ☐
ENVS 15B/BL (S qtr)* ☐ ☐

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

Quantitative Skills:
Math 34A **or** 3A (2A) ☐
and one course from
Math 34B **or** 3B (2B)
or ENVS 25 (S qtr)* ☐

Physical Earth Sci.:
Earth Sci. 2 **or** 4 ☐
or 20 **or** Geog. 3 **or** 4

Statistics:
PSTAT 5A **or** 5LS
or Econ 5 ☐
(Or Comm. 87 or Poli. Sci. 15, or Psy. 10B by petition)

Biology & Ecology:
ENVS 60 (F or Sum qtrs)* ☐
- - - - - - - OR - - - - - -
MCDB 1A/1LL (F/W qtr)* ☐
and EEMB 2 (W qtr)* ☐

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

UPPER-DIVISION (generally 3rd and 4th years) - Total of 57 units

A. ES REQUIRED COURSES (13 UNITS)

ENVS 190 *(a 1 unit seminar offered P/NP only)* (F or S qtrs)* ☐

One course from each of the cluster of courses below.

1. *Ecosystems & Society:* ENVS 101, 130C, 149, 153 (or 193GC) ☐
2. *Energy, Water, Climate:* ENVS 115, 117, 163A ☐
3. *Built Environment:* ENVS 116, 135A, 155, 156 (NEW) ☐

Additional courses may be taken and used as Area B electives.

B. ES ELECTIVES (28 UNITS)

Any upper-division ES courses (#100-199) not used in Area A.

ES Elective Courses	Units
1. _____	_____
2. _____	_____
3. _____	_____
4. _____	_____
5. _____	_____
6. _____	_____
7. _____	_____
Total =	**28**

No more than 8 units combined and 4 units each from Envs 192, 194, 199, and 199RA may apply; and max 12 UCEAP units by petition.

Outside Concentration Courses	Units
1. _____	_____
2. _____	_____
3. _____	_____
4. _____	_____
Total =	**16**

C. OUTSIDE CONCENTRATION (16 UNITS)

There are 2 options for the Outside Concentration:

1) Single department: Complete any 16 upper-division units from any **one** UCSB department or program and they will automatically apply. Completion of a double major will automatically satisfy this area as will an official minor as long as 16 UD units don't overlap with Areas A or B.

OR

2) Interdisciplinary emphasis: Combination of 16 upper-division units from more than one department or program outside ES may be used to create a concentration of study as long as they form a coherent focus or emphasis. A student pursuing this option must submit a *Petition for Degree Requirements* form to ES justifying how courses taken relate to each and form a coherent theme. A list of some example environmental concentrations one might use is available from the ES Advisors or at: www.es.ucsb.edu/degrees

NOTE: Study Abroad or Environmental Field Studies units may be used to satisfy part or all of Area C using either option 1 or 2 above. Units earned must be UC transferable, upper-division, and relate to a coherent concentration. A *Petition for Degree Requirements* must be approved by Environmental Studies before units will be accepted.

Students interested in applying study abroad or field studies units, or pursuing an interndisciplinary emphasis, are encouraged to consult an ES Advisor before starting. Visit the ES Advising webpage at: www.es.ucsb.edu/advising

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 <<<

Environmental Studies, UCSB

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BACHELOR OF Science (B.S.) WORKSHEET 2025-26

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

ENVS 1 (F or Sum qtrs)* ☐
ENVS 2 (S or Sum qtrs)* ☐
ENVS 3 (W or Sum qtrs)* ☐

ENVS 40 (F, W, S qtrs)* ☐

Ethics & Justice:
ENVS 70 (W qtr)* **or** Black St. 4 **or** Fem.St. 50 **or** Ling. 50 **or** Phil. 4 **or** Pol.Sci. 1 ☐

Culture, Society, Policy & Politics:
Anthro. 2 **or** Geog. 5 **or** Global St. 1 **or** 2 **or** Hist. 5 **or** 7 **or** ☐
Poli. Sci. 6 **or** 7 **or** 12 **or** Psychology 1 **or** Relig. St. 1 **or** 14 **or** Sociology 1

Chemistry:
CHEM 1A ☐ 1B ☐ 1C ☐ **and** 2AL + 2BL ☐ ☐

Physical Earth Sci.:
Earth Sci. 2 **or** 4 **or** 20 **or** Geog. 3 **or** 4 ☐

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

Math 3A **or** 2A (F qtr)* ☐
Math 3B **or** 2B (W qtr)* ☐

Physics:
Physics 6A/AL ☐ ☐
Physics 6B/BL ☐ ☐
Physics 6C/CL ☐ ☐
OR
Physics 7A ☐
Physics 7B ☐
Physics 7C + L ☐ ☐

PSTAT 5A **or** 5LS **or** Econ 5 ☐
(Or Comm. 87, Poli. Sci 15, or Psy. 10B by petition)

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)* ☐

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

UPPER-DIVISION (generally 3rd and 4th years) - Total of 65-66 units

A. ES REQUIRED COURSES (17-18 UNITS)

ENVS 190 *(a 1 unit seminar offered P/NP only)* (F or S qtrs)* ☐

One course from: ENVS 164 (193SW), 193DS (S qtr)*; GEOG 172; EEMB 146, 179; PSTAT 120A (*Math 4A required*) ☐

One course from each of the three clusters of courses below:
1. *Ecosystems & Society:* ENVS 101, 130C, 149, 153(or 193GC) ☐
2. *Energy, Water, Climate:* ENVS 115, 117, 163A ☐
3. *Built Environment:* ENVS 116, 135A, 155, 156 (new) ☐

Additional courses may be taken and used as Area B electives.

B. ES ELECTIVES (32 UNITS)

32 UD ES units from courses (#100-199) **not used** in Area A.

Section B-1: At least 20 units must be taken from this list: Envs 101, 103A^, 105, 111^, 113^, 114A-B^, 115, 119^, 120A-B, 121, 128^, 130C, 133^, 134, 137, 140, 141, 142, 144^, 145, 147, 148, 149^, 150, 152^, 153, 154, 156, 162^, 163A, 164, 166DC, 167^, 168^, 169^, 171^, 193AW, 193CS, 193DS, 193EB^, 193GW, 193ST, 193TF, 197. ***^ = cross-listed***

ES Elective Courses	Units
1. _____	_____
2. _____	_____
3. _____	_____
4. _____	_____
5. _____	_____
Section B-2: Any UD ES courses to reach 32 total units	
6. _____	_____
7. _____	_____
8. _____	_____

No more than 8 units combined and 4 units each from Envs 192, 194, 199, and 199RA may apply; and max 12 UCEAP units by petition.

C. OUTSIDE CONCENTRATION (16 UNITS)

There are 2 options for the Outside Concentration:

1) Single department: Complete any 16 upper-division units from any **one** of the following **STEM** departments: Chemistry & Biochemistry, EEMB and/or MCDB (Bio), Earth Sciences, Geography (only courses that apply to the B.S. Physical Geog. major), Math, Statistics, Physics, or Psychological & Brain Sciences. Completion of a double major or minor from the above depts will satisfy this area. If pursuing an official minor make sure 16 UD units don't overlap with Areas A or B.

OR

2) Interdisciplinary emphasis: Combination of 16 upper-division units from more than one department listed above may be used to create a concentration of study as long as they form a coherent focus or emphasis. A student pursuing this option must submit a *Petition for Degree Requirements* to ES justifying how proposed courses relate to each other and the desired concentration. A list of some example environmental concentrations one might use is available from the ES website at: www.es.ucsb.edu/degrees .

NOTE: Study Abroad or Environmental Field Studies units may be used to satisfy part or all of Area C using either option 1 or 2 above. Units earned must be UC transferable, upper-division, and relate to a student's chosen concentration. A *Petition for Degree Requirements* must be approved by Environmental Studies before units will be accepted.

Students interested in applying study abroad or field studies units, or pursuing an interndisciplinary emphasis, are encouraged to consult an ES Advisor before starting. Visit the ES Advising webpage at: www.es.ucsb.edu/advising

1. _____	_____
2. _____	_____
3. _____	_____
4. _____	_____
Total =	***16***

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***

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