ENVIRONMENTAL STUDIES University of California, Santa Barbara

est. 1970

In 1969 Santa Barbara experienced the worst oil spill in U.S. history up to that time. The University of California, Santa Barbara was within sight and smell of the littered channel and its beaches. Until that point in history, the world of academia had not yet realized that it overlooked a very important aspect of educating students on how to care, respect, and develop a framework to protect our fragile world.

But this all changed just a few weeks after the spill when on February 18th, 1969 a group of twenty-one faculty, calling themselves The Friends of the Human Habitat, met to discuss

the possibility of promoting environmental education at UCSB. The members of the ad-hoc committee were geologists, geographers, engineers, biologists, an economist, and a historian. By the fall of 1970 the Environmental Studies Program at UCSB was established, one of the first of a new breed of educational programs in the country. It was constructed as a multidisciplinary program drawing on the strengths of many fields and providing a balanced and holistic approach to investigating and solving complex environmental issues.

Five plus decades later, Environmental Studies (ES) still holds true to its goal of offering students an interdisciplinary education while simultaneously evolving to meet the challenges of an ever changing world. The first graduating ES class in 1972 had only 12 students. In 1980 the total number of graduates rose to 871. Today, with more than 1,100 enrolled students and over 9,000 alumni, the ES Program at UC Santa Barbara is considered one of the largest and most successful undergraduate environmental programs in the world.

What is Environmental Studies? Simply put, environmental studies is the systematic study of human interaction with the natural environment. Today's environmental problems are highly complex interdisciplinary issues involving political, economic, social, physical and biological considerations. Modern environmental studies must include the examination of both the urban and natural environment. Society needs educated people who can address current and future environmental problems using a holistic approach, one that emphasizes linkages between systems such as the urban environment and atmospheric contamination, or economic growth and its impact on natural resources. These types of relationships must be analyzed and understood in order to successfully address environmental problems at local, regional, and global scales.

The Environmental Studies curriculum at UCSB is designed to provide students with the scholarly background and intellectual skills necessary to understand complex environmental problems and formulate decisions that are environmentally sound. The academic process is interdisciplinary, drawing upon the diversity of environmentally related departments and disciplines throughout UCSB. A student majoring in environmental studies will explore a wide variety of issues, including:

- The social and human environment: urban and regional planning, ethical and values systems, the history of human/environment interactions, local and global ecomonic sustainability, environmental law, justice and policy, indigenous and cultural beliefs, sustainable agriculture, and environmental impact analysis
- The physical environment: the hydrologic cycle, waste management, coastal processes and management, energy production technologies, soil preservation, geography, and air/water pollution
- The biological environment: the function of ecosystems, population dynamics, toxicology, wildlife management, and habitat conservation and restoration

Academic Advising 805-893-2283

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www.es.ucsb.edu/advising



ES offers two degrees in environmental studies: B.A. and B.S. degrees. While both majors stress the importance of understanding interrelationships between the humanities, social sciences, and natural science disciplines, offering two degree options affords students the opportunity to choose a major that most appropriately fits their environmental interests and long-term goals.

<u>The bachelor of arts (B.A.) degree</u> provides maximum flexibility for students to explore the social, cultural, and scientific issues pertaining to the environment. At the preparation level (lower-division) students enroll in a breadth of introductory social science, humanities, and natural science courses to establish a fundamental understanding of today's complex and interdisciplinary environmental problems. During one's junior and senior years (upper-division level) they complete a seminar, three required clusters of courses and select 28 elective units from a wide range of 90+ environmental courses to develop an unique emphasis based on

personal interests and goals. The last part of the major is a 16-unit outside concentration where students complete courses from one or more UCSB departments/programs relating to their emphasis. Approximately 1/3 of ES majors use this section to complete a double major or minor and many more use it to participate in a field studies or study abroad programs. Some popular emphases B.A. majors pursue include: law and policy, urban and regional planning, education, environmental economics/sustainable business, waste management, environmental justice, journalism/media, sustainable agriculture, and environmental design.



<u>The bachelor of science (B.S.) degree</u> is similar to the B.A. as it requires introductory social, economic, political and ethics courses. But the B.S.'s primary focus is to train students to become proficient in the natural and physical sciences and develop their technical, quantitative, ecological, and analytical skills. Thus, a greater number of introductory courses in biology, mathematics, chemistry, and physics are required versus the B.A. degree. At the upper-division level students take a majority of their environmental electives and outside concentration courses from the natural and physical science disciplines to better understand the role they play in solving environmental problems. B.S. students often formulate their electives to create emphases such as air and water quality, conservation and habitat restoration, environmental health and toxicology, renewable energy technologies, wildlife management, and soil and ecosystem sciences to name a few.

The ES Program also offers a **bachelor of science degree in Hydrologic Sciences and Policy** which provides students with the scientific training needed to understand and solve complex hydrologic (water) problems at local, regional, and global levels. As hydrology deals specifically with the occurrence, circulation, distribution, and properties of the waters of the earth and its atmosphere, its curriculum is more focused than either of the environmental studies degrees. It provides a rigorous framework of courses in biology, chemistry, math, geography, physics, and geology necessary for students to understand the hydrologic process and the impacts humans have upon it. Introductory courses for this major concentrate on physical & natural sciences to prepare majors for demanding upper-division required courses in rivers, environmental hydrology, water pollution, and water policy. Students then select one course from six hydrology themed clusters of courses and take three elective courses from a broad list that includes an internship class, a senior thesis, the Environmental Leadership Incubator (ELI), or participation in the UC Education Abroad Program or an affiliated field studies program with projects located on six continents.

Major requirement sheets for all ES degrees are available online at: www.es.ucsb.edu/degrees

The ES Faculty: UCSB's Environmental Studies Program employs 19 faculty members (including three distinguished endowed chairs), many of whom hold joint appointments with other UCSB departments, including: Biology, Earth Sciences, Geography, Religous Studies, Sociology and the Bren School. Additionally, there several affiliated faculty from other departments who teach courses for ES and approximately a dozen working professionals (lecturers) who teach 'real world' courses on environmental topics within their field of expertise. Visit the ES website's People section for a complete list of ES faculty, their areas of expertise, and detailed biographies and research interests: www.es.ucsb.edu/people

Welcome From The Chair:

UNIVERSITY OF CALIFORNIA, SANTA BARBARA

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SANTA BARBARA • SANTA CRUZ

FAX: 805-893-8686

Office: 805-893-2968



Welcome to UCSB! We are thrilled to have you join our vibrant and dynamic community of researchers, teachers, and environmental stewards. As you embark on this exciting journey in Environmental Studies, you are stepping into a field that is critically important to the future of our planet.

The Environmental Studies Program's mission is to educate students to become agents for change for a healthy and just environment. Nestled between the Santa Ynez Mountains and the Pacific Ocean, Santa Barbara provides an unparalleled natural laboratory for studying the environment. Our unique location offers you the chance to explore diverse ecosystems, from coastal habitats and marine environments to mountainous terrains and urban green spaces. Our program is designed to be interdisciplinary,

drawing on insights from the natural sciences, social sciences, engineering, and humanities. From climate change and biodiversity loss to sustainable development and environmental justice, your coursework and experiences here will equip you with the knowledge, skills, and perspectives needed to make a meaningful impact. Moreover, you will have the opportunity to engage in hands-on learning, research, and community projects that will deepen your understanding of environmental issues and prepare you for a wide range of careers.

In addition to your academic pursuits, we encourage you to get involved in the many extracurricular activities and organizations dedicated to environmental advocacy and sustainability on campus and in Santa Barbara. Whether it's joining the AS Environmental Affairs Board, pursuing an internship through the Environmental Studies Internship Program, or attending events hosted by UCSB Arts and Lectures, there are numerous ways to connect with like-minded peers and contribute to our campus and community sustainability initiatives. As you begin this new chapter, remember that your professors, advisors, and peers are here to support you every step of the way. Getting to know your ES professors and ES advisors by talking to then after class or meeting with them during office hours is a first step to building relationships that will serve you during your entire time at UCSB. Together we can create inclusive and collaborative learning and social environments where you can thrive, both academically and personally.

The Environmental Studies Program at UCSB was established in 1970, becoming one of the first interdisciplinary environmental programs in the United States. The program was born out of the growing environmental consciousness of the 1960s, particularly following the 1969 Santa Barbara oil spill, which, at the time, was one of the worst environmental disasters in U.S. history. This incident galvanized students and faculty to push for a program that would address environmental challenges and prepare students to become leaders in the field.

Welcome to our community and know you are walking a path that over 9,000 students have walked before you!

Sincerely, Simone Pulver Associate Professor and Chair, Environmental Studies Program Faculty Director, Center for Undergraduate Environmental Leadership

View past ES Chairs' welcome letters at <u>https://es.ucsb.edu/chairs-welcome</u> or as a <u>.pdf here</u>.

Interesting Facts About Environmental Studies at UCSB:

Celebrating 54 years at UCSB! Recognized as one of the first undergraduate environmental programs in the country, the Environmental Studies Program at UCSB was **established in 1970** as a new, innovative, interdisciplinary program to provide students with scholarly training and critical analysis skills to understand and solve complex environmental problems.

With 1,100+ majors, over 9,000 alumni, and offering over 100 courses covering a vast array of disciplines and topics, UCSB's Environmental Studies Program is one of the world's largest and most successful undergraduate environmental programs.

Offer both a **Bachelor of Arts (B.A.)** and Science (**B.S.) degree in Environmental Studies** and a third degree in (**B.S.) Hydrologic Sciences and Policy**. Multiple degree options provide students flexibility to select a major that most appropriately fits their environmental interests and long-term goals.

Over a third of all Environmental Studies majors graduate with a **double major or official minor** from UCSB.

Each year Environmental Studies **awards dozens of scholarships totaling over \$40,000** to its students who are looking to further their learning beyond the classroom by conducting research under the guidance of a faculty member, participate in environmental internships or field studies programs, undertake a project related to civic and environmental leadership, or attend an academic conference or participate in a special creative activity and need financial support to do so. Visit the ES Scholarship page for more info: <u>https://es.ucsb.edu/scholarships</u>

In 2023-24 over 120 ES students **studied abroad in 22 different countries** through UCSB's Education Abroad Program (EAP). Dozens more participated in **academic environmental field studies programs** working as research associates and gaining valuable research experience while helping scientists in exotic locations such as the Amazon, South Africa, Himalayas, Australia, Thailand, Chile, and Alaska.

The **Environmental Studies Internship Program** is one of the largest department internship programs on campus. ES faculty consider internships a vital bridge between academic course work and practical applications and each year over 130 ES and Hydrologic Sciences students receive academic credit while completing internship positions locally, statewide, nationally, and internationally. <u>https://es.ucsb.edu/internships</u>

ES is home to the UCSB Environmental Leadership Incubator (ELI), a nine-month program that trains undergraduate students to become environmental leaders. The ELI program is organized around student-initiated projects that seek to implement positive environmental change. It combines coursework and leadership skills training in the fall quarter, with project implementation and mentorship by real world professionals in the winter and spring quarters. <u>https://eli.ucsb.edu</u>

Environmental Studies is located within Bren Hall, the **"greenest" laboratory building** in the UC system and the first in the United States to receive a quadruple platinum LEED rating for design and sustainability.

UCSB is **ranked the second greenest university in the U.S.** by national publication Greenopia based on its 62% recycling rate, goal to be zero waste by 2025, use of greywater for landscaping, and large number of LEED certified buildings. Sierra Club Magazine consistently ranks UCSB in it's top ten annual list of "Coolest Schools" in recognition of the campus effort to solve climate problems and operate sustainably.

Environmental Studies alumni have succeeded in a vast and diverse array of careers in the public, private, academic, scientific, and non-profit sectors across California, the United States, and around the world. See the next page for a small **sample of job titles held by UCSB ES Program alumni**.

Sample of job titles held by UCSB Environmental Studies Alumni:

LOCAL:

Director, Planning Agency Alternative Transportation Manager Executive Director Redevelopment Supervisor Professor of Environmental Studies Executive Director Director of Environmental Safety Principle Architect/Owner Hydrologist

STATE:

Assistant Secretary, Ocean and Coastal Policy Director of International Programs Deputy Secretary, Climate Change and Energy Chief, Environmental Planning & Management Director of Education

NATIONAL:

Vice President for Sustainability Programs President, Regions Manager of Environmental Assessments President Director of Conservation Director of Bureau of Planning and Sustainability President, Board of Directors National Field Director Senior Research Fellow Resource Management Planner **FEDERAL:**

FEDERAL: Manager of Cor

Manager of Communications for the Environment Deputy Director, Congressional and Legislative Affairs Superintendent, North Cascades Deputy Asst. Secretary for Fish and Wildlife and Parks Director, Environmental Planning Specialist, Human Capacity Development GIS Technician Staff Attorney **INTERNATIONAL:** Policy Officer/Remote Sensing Scientist

ES Program Alumni Survey:

Manager of Health, Safety & Environment

Ventura County Santa Barbara County Santa Barbara County Association of Governments City of Santa Barbara, CA California State University Channel Islands The Land Trust for Santa Barbara County Santa Barbara Cottage Hospital Van Atta Associates, Landscape Architecture Ventura Country Flood Control District

CA Natural Resources Agency CA Energy Commission CA Natural Resources Agency CA Department of Transportation Catalina Island Conservancy

Quiksilver, Inc. SunPower, leading solar technology company The Walt Disney Company League of Conservation Voters New England Aquarium City of Portland, OR Earth Island Institute Alaska Rainforest Campaign Pew Center on Global Climate Change State of Hawaii

NASA

Secretary of the U.S. Dept. of Interior U.S. National Park Service U.S. Department of Interior U.S. Army Corps of Engineers U.S. Centers for Disease Control and Prevention Hawaiian Islands Whale National Marine Sanctuary U.S. Environmental Protection Agency

Queensland Environmental Protection Agency, Australia MB Petroleum Services, Oman

The Environmental Studies Program periodically conducts an alumni survey to obtain valuable feedback about our graduates' experience while at UCSB and life after graduation. The ES Program is getting ready to launch it's next survey and we hope to publish the results by Fall of 2025. A complete summary of our 2005 Survey Results may be downloaded online at: <u>www.es.ucsb.edu/alumni</u>

For more information about the Environmental Studies Program, including its rich history, curriculum and course descriptions, faculty profiles, visit online at: <u>www.es.ucsb.edu</u> or call 805-893-2968

Environmental Studies Course #'s and Titles

- 1. Introduction to Environmental Studies
- 2. Introduction to Environmental Science
- 3. Introduction to the Social and Cultural Environment
- 15A&B. Environmental Chemisty Series with Lab
- 25. Quantitative Thinking in Environmental Studies
- 30. Introduction to Environmental Economics
- 40. Critical Thinking & Evidence Based Reasoning in Env.
- 50. Bending the Curve: Climate Change Solutions
- 60. Applied Ecology
- 70. Introduction to Environmental Ethics
- 95. Intro to Ecological Restoration Field Skills
- 96. Intro to Curation of Natural History Collection
- 99. Introduction to Research in Environmental Studies
- 101. Ecosystems Services and Biodiversity
- 102. Qualitative Methods in Environmental Studies
- 103. Nature Spirituality
- 103A. Flora and Vegetation of CA
- 105. Renewable Energy Systems
- 108O. History of Oceans
- 108W. Wildlife in America
- 111. The California Channel Islands
- 112. World Population, Policies, and the Environment
- 113. Engineering and Environmental Geology
- 114A&B. Principles of Soil Science & Soils of California
- 115. Energy and the Environment
- 116. Sustainable Communities
- 117. Transition to Low Carbon Society
- 118. Industrial Ecology: Designing for the Environment
- 119. Ecology & Management of CA Wildlands
- 120A&B. Intro Env. Toxicology & Advanced Env. Toxicology
- 121. Contaminants of Emerging Concern
- 122NE. Cultural Rep.: Nature and Environment
- 125A. Principles of Environmental Law
- 125B. Climate Change Law
- 127A. Foundations of Environmental Education
- 127B. Advanced Environmental Education and Praticum
- 128. Foundations of Ecosystem Restoration
- 129. Ecopsychology
- 130A. Un-naturalizing Disasters: Risk, Vulnerability, Resillience
- 130B. Global Tourism and Environmental Conservation
- 130C. Aquatic Food and Resource Management
- 130SD. The World in 2050: Systematic Alternatives
- 131. International Environmental Law and Politics
- 132. Human Behavior and Global Environment
- 133. Biodiversity and Conservation Biology
- 134. Coastal Processes and Management
- 134CJ. Climate Justice
- 134EC. Earth in Crisis
- 135A&B. Principles of Env. Planning & Advanced Env. Planning
- 136. Green Works Exploring Technology/Sustainability
- 1360. Sustainable Architecture: History & Aesthetics
- 137. Conservation Planning
- 138. Water and Society
- 139. Business and the Environment
- 140. Ecology and Management of Wildland Fire
- 141. Chemistry of Global Change
- 142. Microbes and the Human Environment
- 143. Endangered Species Management
- 144. Form, Process, and Human Use of Rivers

- 145. Climate Change Mitigation Strategies
- 146. Animals in Society: Ethical Issues of Animal Use

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- 147. Air Quality and the Environment
- 148. Transforming Food Systems
- 149. Food, Agriculture, and the Environment
- 150. Agroecology
- 151. Environmental Anthropology
- 152. Applied Marine Ecology
- 154. Geographical Info Systems for Env. Applications
- 155. The Built World: Infrastructure & Env. Change
- 159. America's Public Lands & Waters Law & Policy
- 160. American Environmental Literature
- 161. Environmental Communications: Strategies/Tactics
- 162. Environmental Water Quality
- 163A. Global Water Resources: Water Supply & Demand
- 163B. Global Water Resources: Water Management Policy
- 164. Intro to Collecting, Wrangling, & Exploring Water Data
- 165A&B. Env. Impact Analysis & Advanced Impact Analysis
- 166DC. Diet and Climate Change
- 167. Biogeography: Plant & Animal Distribution
- 168. Aqueous Transport of Pollutants
- 169. Tracer and Contaminant Hydrology
- 171. Ecosystem Processes
- 172. Waste Management: Recycling/Product Stewardship
- 173. American Environmental History
- 175. Environmental Economics
- 176. Energy Politics and Policy
- 176A&B. Water Policy in the West & Adv. Study of Water
- 177. Comparative Environmental Politics
- 178. Politics of the Environment
- 179. Natural Resource Economics
- 180. Global Environmental Movements
- 181. Power, Justice, and the Environment
- 182. Seminar in Community & Personal Resillience
- 183. Film, Representation, and the Environment
- 184. Gender and the Environment
- 185. Human Environmental Rights

193AF. Ancestral Foods

191.

192.

197.

199.

Detailed course descriptions and syllabi available online at: www.es.ucsb.edu/courses

- 186. Development, Displacement, and Environmental Justice
- 187. Green Building Design & Opperations
- 188. The Ethics of Human-Environment Relations190. Colloquium on Current Env. Topics & Careers

Internship in Environmental Studies

Nature and Science Education Practicum

193CE. New Perspectives: Reducing, Reusing & Recycling

193CS. People's Science: Into to "Citizen" & Community

193DS. Advanced Statistics and Data Science & Env.

193ST. Sea Turtle Conservation and Management

193PS. The Art of Public Speaking for the Environment

Senior Thesis in Environmental Studies

193EB. Ethnobotany: Human Use of Plants

193TK. Traditional Ecological Knowledge

193TW. Intro to Transboundary Water Sharing

195ABC. Environmental Leadership Incubator

199RA. Independent Studies Research Assistance

Independent Investigation

193WL. Wild Literature in the Urban Landscape

193SI. Sustainability and Inovation

194GB. Green Building Living Lab

Getting Out of the Classroom: Experiential Education Opportunities in ES

Often the deciding factor for an ES graduate being selected for a job or accepted to graduate school is not based on good grades in required courses, but rather the amount of experience one has in dealing with 'real world' situations. An employer wants an employee who is versatile, self-reliant, confident, can fulfill leadership positions, and can be trusted to do the job. Managers are reluctant to invest time and money in training someone who has never set foot outside the "ivory towers" of academia or who has not demonstrated an ability to cope with adverse situations or interact with others in a professional setting. The classroom will provide the formal education, but those who pursue field and research courses and/or experiential education opportunities (2nd half of one's education) will heighten their professional stature and job marketability.

Opportunities to **develop hands-on skills** deemed important by both ES alumni and industry executives are readily available through Environmental Studies and UCSB. Over three-quarters of all environmental studies majors complete at least one internship, research opportunity, field studies or study abroad program before graduating. Below is a list of just some of the many hands-on experiential opportunities ES students may elect to pursue during their undergraduate education:

Environmental Studies Internship Program (ESIP): Internships are considered an integral part of the environmental studies and hydrologic sciences curriculum and are fully supported by the faculty. Managed by the environmental studies internship coordinator, this academic program was initiated in 1973 to provide students with experience in their field of interest and to tie classroom learning to practical field applications. Over 150 students are placed in academic internships locally, statewide, nationally, and internationally each year. Positions are available year-round and the internship coordinator is available to assist students in selecting appropriate internships to meet their learning objectives. Academic credit (ENVS 192) is awarded to students who successfully complete an internship position. Many ES majors elect to spend a quarter pursuing interhsips in our state or nation's capital through the <u>UC Sacramento or UC Washington D.C.</u> Capitals Programs.

Independent Studies, Research, and Senior Thesis Opportunities: The Environmental Studies Program encourages students to pursue any number of research opportunities made available to its students, including: enroll in the ES Honors Program, complete a senior thesis (ENVS 197), or conduct an independent research project (ENVS 99 or 199) or serve as a research assistant with an ES faculty member (ENVS 99 or 199RA).

Enroll in the Environmental Leadership Incubator (ELI): This course (ENVS 195) combines the theory and practice of leadership, cultivating leadership skills in environmentally-oriented undergraduates and functioning as an incubator for student-initiated group projects focused on positive environmental change under the mentoriship of an environmental professional. Projects may address campus, community or regional environmental challenges through social activism, technology development, education, policy change, and other means.

Studying Abroad: The flexibility of the environmental studies curriculum permits students the opportunity to pursue study abroad opportunities through the <u>UC's Education Abroad Program</u> offering hundreds of programs in 40+ countires or through third-party academic programs. ES majors have studied up to one full year at universities located on six continents or cruise around the world aboard Semester at Sea. Depending on the coursework taken academic credit may be petitioned to substitute for a large number of major requirements.

Environmental Field Studies: Environmental Studies students may earn academic credit and fulfill their Outside Concentration while conducting field research in small teams with faculty and professional researchers from all over the globe. Field studies opportunities are available through a number of affiliated environmental field studies and research programs (i.e. Wildlands Studies, School for Field Studies, Sierra Institute, etc.) and offer excellent first-hand field research experiences in often exotic locations like the Peruvian Amazon, Himala-yas, Alaskan Wilderness, Belize's tropical rainforests, Yellowstone, and South Africa to name a few.

EXAMPLES APPENDIX SANGE APPENDIX SA

Education Abroad Program

2431 South Hall University of California Santa Barbara, CA 93106-3040 (805) 893-2958

> eap.ucsb.edu eap.ucop.edu

"Remembering the image of women balancing baskets overflowing with freshly baked bread, wide-eyed babies tied to their backs, walking into a classroom as the only white foreigner, and studying to the sounds of bullfrogs as a I lay on my dorm room balcony makes me wonder why I returned to the States to finish my education."

> Shelly Barnes ES Major EAP Ghana



A variety of environmental problems now affect our entire planet. As globalization continues and the earth's natural processes transform local problems into international ones, no societies are untouched by major environmental problems.

UCSB's Environmental Studies Program strongly encourages its students to consider completing some portion of their undergraduate study through the Education Abroad Program (EAP) or similar "off-campus" studies program. An opportunity to study in a foreign university not only offers an international dimension to an undergraduate education, but can deepen a student's understanding of the causes and effects of today's environmental problems on a global scale.

► Go explore the global environment!

Why study abroad?

Each year dozens of Environmental Studies (ES) majors study abroad. With careful academic planning, ES majors can have an experience of a lifetime studying in a foreign university with no loss of time in completing their degrees. Develop a global understanding of the structure and dynamics of complex environmental systems and enhance your future career through classroom, laboratory and field experiences that are unique to the country and region in which you study.

Where should I study abroad?

UC's Education Abroad Program provides Environmental Studies students opportunities to study environmental problems and issues in over 30 countries located on six different continents. Students wishing to complete a substantial part of your major requirements abroad have a wide variety of options. There are over 20 different countries with host universities that have environmental studies programs or departments. Additional countries offer a variety of environmental courses through more "traditional" academic departments such as biology, sociology,

The Cost of EAP

Studying abroad through EAP can be comparable to the cost of study at UCSB. EAP participants continue to receive UC financial aid while abroad. EAP students are also eligible for special grants and scholarships from UC and other sources. geography, and anthropology. And with the option for students to satisfy your "outside concentration" requirement by taking units from any single, nonenvironmental, department or program, ES majors have a world of choices.

When should I study abroad?

ES majors are advised to complete their lower-division preparation courses at UCSB before leaving to study abroad during the academic year. Summer programs are popular for students with sophomore standing.

Transfer students are eligible to participate as early as their first quarter at UCSB.

What classes should I take?

Keep in mind that students in the College of Letters and Science must complete at least 20 units of upperdivision major coursework (or 12 upper-division minor units) in residence at UCSB along with other residence requirements. Consult an advisor in the College of Letters & Science for more information.

Depending on a student's area of academic interest and the number and type of courses offered at their host university, it is possible for an ES major to apply as many as 36 upper-division EAP units towards major requirements. Here are some helpful guidelines for applying EAP courses towards major requirements, including the **maximum** number of EAP upper-division units that may be applied:



Download the complete report at: https://es.ucsb. edu/Alumni

By June, 2005, the Environmental Studies Program at UCSB graduated approximately 4,100 students, establishing itself as one of the oldest and most successful environmental studies programs in the nation!

As part of the ES Program's 35th Anniversary, an alumni survey was conducted in spring, 2005. As of June 30th, <u>504</u> alumni had responded and the following summary highlights the results.

For a copy of the complete ES alumni survey report, visit the ES Program's website at: <u>www.es.ucsb.edu</u>

The 2005 ES Alumni Survey Report was prepared by Eric Zimmerman.

The project was sponsored by the UCSB Environmental Studies Associates and the Environmental Studies Program.

Envíronmental Studíes Program UC Santa Barbara Alumni Survey - Summary

504 (12.3%) of the approximately 4,100 total ES alumni submitted a survey in 2005.

1. LOCATION/RESIDENCE OF ES ALUMNI:

ES alumni currently live in 30 out of the 50 United States & District of Columbia. California has the largest population with 404 (81%), Oregon is second with 12 (2.4%), Washington is third at 8 (1.6%), and Maryland is fourth with 7 (1.4%). Other states with multiple ES alumni include: Alaska, Colorado, D.C., Florida, Hawaii, Idaho, Massachusetts, Montana, New York, Pennsylvania, Texas, Virginia, and Wyoming.

11 ES Alumni (2.0%) live in another country, including: Argentina, Australia, Bali, Canada, Finland, Guam, Japan, New Zealand, Sultan of Oman, and Benin-West Africa.

2. UNDERGRADUATE/ES DEGREE INFORMATION:

Of the 504 respondents, **188** (37.3%) received a B.A. prior to 1990, **213** (42.3%) obtained B.A. degree after 1990, **96** (19%) received a B.S. degree or the B.A. with the Natural Science emphasis, and **7** (1.4%) had received the B.S. degree in Hydrologic Sciences.

178 (38.7%) of 468 transferred to UCSB from another institution. 118 from CA Community Colleges, 24 from another UC campus, and 19 from California State Schools.

Out of the 467 who responded, **167 ES alumni (35.8%) said they graduated with a double major;** the largest departments with ES double majors were Geography - 54, Economics - 27, Biology - 21, and Political Science - 15.

111 (24.7%) of 450 studied abroad or participated in an environmental field studies/ experiential education program (i.e. EAP, Wildlands Studies, UCDC, etc.).

225 (**48.5**%) of **464** alumni completed a Senior Thesis (86.3% because it was required) and their overall satisfaction with the experience averaged a score of 5.99 (scale of 1=lowest to 7=highest).

67.1% (314 of 468 respondents) said they completed at least one internship while at UCSB. 96 (20.5%) did two, 35 (7.5%) completed three, and 10 (2.1%) finished four.

3. Alumni Rank Their UCSB and ES Experience:

Alumni were asked to use a number between 1 (lowest) and 7 (highest) to **rank the following topics based on their experience while a student at UCSB.** 449 responded:

	<u>Avg. Score</u>
Overall Satisfaction With Your Education Within the ES Program:	6.14
Overall Satisfaction With Your UCSB Education:	5.99
The Overall Quality of the ES Faculty:	6.19
The Overall Quality of the ES Staff:	6.18

When alumni were asked to **summarize their overall experience in the ES Program**, the following phrases were used most often:

<u>What They Said:</u>	<u># times used by Alumni</u>
Excellent!!!	51
Great!	34
I loved it	21
Very Good	16
Good	15
I enjoyed it	9
Positive	9
Wonderful	9
Fantastic!!!	8
It was great	8
Terrific	2
Amazing!	1
A '10'!	1
Rockin!!!!!!!	1

4. Additional Education

Of 458 respondents, **310** (67.7%) said they completed some form of post undergraduate education after UCSB. The breakdown was as follows:

	Total # Alumni	% of 458 Total Replies	% of 310 w/ Add. Education
# Grad Degrees (M.A., Ph.D., Etc.)	199	43.4%	64.2%
# completed a Certificate Program	92	20.0%	29.7%
# with Assoc. or 2nd Bachelors	10	2.2%	3.2%
Other or Unknown additional education	9	1.9%	2.9%
Total:	310	67.7%	

There were 21 Ph.D.'s, 42 law degrees,

31 Masters in Planning, 19 Teaching Credentials,
13 M.B.A.'s, 12 Masters in Public Administration,
9 Masters in Education, 8 Masters in Env. Science and Management, 5 Masters in Public Health,
2 Veterinarians, and 1 M.D.

5. PROFESSIONAL SKILLS DEEMED NECESSARY AFTER GRADUATION

375 alumni provided comments regarding "skills" they deemed necessary for undergraduates to develop if they wish to enhance their marketability after graduating. Here is a sample of the more popular skills recommended by ES alumni:

- Effective written and verbal communication skills.
- Interpersonal skills, such as the ability to work cooperatively with others on group projects.
- Hands on business skills.
- Research and organizational skills.
- Ability to work independently.
- Technical writing, articulate speaking, and public presentation skills.
- Develop problem solving skills.
- A good work ethic.
- Ability to think critically and creatively.
- Flexibility, adaptability, and perseverance.
- A sense of humor.
- People skills always seem to come first in this world.
- Ability to think on your own and be creative.
- Ability to see the whole picture.
- Awareness of current events and world affairs.
- Writing, writing! So practice, practice.....
- Experience! Do as many internships as possible.

6. Words of Wisdom From ES Alumni

Over 370 alumni shared their **thoughts on how current Environmental Studies majors may enhance their education while at UCSB.** Here are just a few:

- Balance your 'book' knowledge with real-life experiences through internships.
- If you wish to go on to graduate school: Get to Know Your Faculty!
- Be a sponge. Absorb the wealth of knowledge that the professors have to offer.
- As with anything in life, you get out what you put into the experience.
- Be active in the community UCSB, Isla Vista, Santa Barbara - Get out and get to know people, network!
- Be creative and willing to think outside the box when looking, finding, and defining your education.
- Don't get caught up in the doom and gloom attitude of some people in the environmental community. Maintain a sense of empowerment and optimism in order to continue working for what you believe is right.

- Put in the effort to get to know your teachers, your fellow students, the land and community around campus -- all will guide you on your path.
- Don't get too hung up on 'being' one thing when you 'grow up.' Life has a funny way of changing your plans.
- Challenge your assumptions. Be aware of accepting conclusions just because they correspond with yours.
- Write a senior thesis, it's a good experience and has great post-graduation marketability.
- Work hard, play harder! You only get your under graduate degree once, so enjoy it everyday.
- Try everything at first and learn from every experience. You will find your closest friends and create your greatest memories from your own ambition.
- Don't get 'lost in the cracks' and do the bare minimum to graduate, this will not help you get a job out of school. Take advantage of opportunities to build your resume and your skills.
- ES is a very real world major! Employers want people who can think and write. They want people who can defend their ideas. ES offers you the opportunity to develop these skills, but you have to take advantage of them.

7. ES Alumni Employment Data

Of the 504 total survey respondents, **455** (**90.3**%) were currently employed.

Of the 455 employed, **352** (**77.4%**) said they considered their job to be "environmental."

Of the 49 (9.7%) who were unemployed, 26 were current graduates students, 4 had become stay at home moms, 2 were retired, and only 11 were currently looking for employment or in the middle of a career change.

Alumni were asked to select an **employment category that best fit their current employer and job.** 455 alumni responded:

Category: All ES Alumni	#	% of 455
Private Sector	164	36.5%
Local Government	81	17.7%
Academia/Education	59	13.0%
Non Government	54	11.8%
Self Employed	46	10.0%
State Government	25	5.4%
Federal Government	22	4.9%
Other	4	0.9%

Category: Alumni w/Env. Jobs	#	% of 352
Private Sector	133	38.2%
Local Government	68	19.5%
Academia/Education	41	11.8%
Non Government	35	10.1%
Self Employed	30	8.6%
Federal Government	21	6.0%
State Government	21	6.0%
Other	3	0.9%

ES Alumni were also asked to **choose the annual salary range for which they qualified.** 388 responses were recorded and are included below.

Annual Salary	#	% of 388
\$0 to \$20,000	34	8.6%
\$21,000 to \$35,000	53	13.4%
\$36,000 to \$50,000	87	22.0%
\$51,000 to \$65,000	74	18.7%
\$66,000 to \$80,000	55	13.9%
\$81,000 to \$96,000	23	5.8%
More than \$96,000	69	17.5%

Short list of ES Alumni's job titles and employers:

<u>Job Title</u>	Employer
Architect	Miller Hayashi Architects
Ecologist	U.S. Geological Survey
Senior Env. EngineerLowney	Associate
President/Principal Planner	Urban Planning Concepts
District Superintendent	CA Dept. of Parks & Rec.
Associate Professor	Cal Poly San Luis Obispo
Aquatic Ecotoxicologist	Pacific Ecorisk
President	League of Conservation Voters
Air Pollution Specialist	CA Air Resources Board
Senior Attorney	Centers for Disease Control & Prevention
Director of Conservation	New England Aquarium
Photo Interpreter/GIS	Bureau of Reclamation
Democratic Legislative Staff	U.S. House of Reps. Committee on Resources
Vice President	Bonneville Environmental Foundation
Battalion Chief	USDA Forest Service
Manager	NASA Groundwater Cleanup
Superintendent, NPS Lewis a	nd Clark National Historical Park
Asst. Secretary of Resources	CA Resources Agency
Executive Director	Coalition for Sustainable

ES Alumni were asked to select one job field which best described their current employment or job title. 456 responses were recorded and the results are summarized below:

Alumni Classified by Job Field	<u>#</u>	<u>% of 456</u>
Planning	<u>103</u>	<u>22.6%</u>
Architecture/Design	2	
Comprehensive	16	
Environmental	42	
Land Use/Zoning	26	
Recreation	5	
Regional	2	
Transportation	10	
Environmental Science	<u>103</u>	<u>22.6%</u>
Air Quality	14	
Biology/Ecology	21	
Botany	3	
Energy	1	
Engineering	2	
Env. Health/Safety	11	
Fishery/Wildlife Mgt.	4	
Forestry	2	
GIS/Remote Sensing	11	
Hazardous Waste	2	
Hydrology	3	
Industrial Hygiene	1	
Mineral Resources	1	
Resource Conservation	8	
Solid Waste	4	
Water Quality	15	
Education	<u>58</u>	<u>12.7%</u>
Administration	<u></u>	12.770
Camps/Outdoor	9	
Current Grad Student	6	
Environmental	6	
Instructor, College/University	11	
Teacher, Primary	10	
Teacher, Secondary	9	
Teacher, Secondary	,	
<u>Miscellaneous</u>	<u>56</u>	<u>12.3%</u>
Agriculture/Horticulture	4	
Communications	3	
Computer Science	5	
Consulting	4	
Entertainment	4	
Health care	11	
Hospitality	3	
Media	1	
Public Safety	3	
Business	<u>43</u>	<u>9.4%</u>
Construction	7	
Economics	4	

Finance	7	
Green Product Sales/Services	7	
Insurance	5	
Land Management	1	
Real Estate	12	
Law	<u>29</u>	<u>6.4%</u>
Corporate	7	
Criminal	2	
Environmental	16	
Estate Planning	2	
Family	1	
Public Interest	1	
Policy/Politics	<u>26</u>	<u>5.7%</u>
Policy/Politics Administrator	<u>26</u> 2	<u>5.7%</u>
-		<u>5.7%</u>
Administrator	2	<u>5.7%</u>
Administrator Analyst	2 3	<u>5.7%</u>
Administrator Analyst Consultant	2 3 7	<u>5.7%</u>
Administrator Analyst Consultant Gov't Staff	2 3 7 5	<u>5.7%</u>
Administrator Analyst Consultant Gov't Staff Lobbyist	2 3 7 5 5	<u>5.7%</u>
Administrator Analyst Consultant Gov't Staff Lobbyist Politician	2 3 7 5 5 4	
Administrator Analyst Consultant Gov't Staff Lobbyist Politician Other	2 3 7 5 5 4 20	<u>4.4%</u>

8.0 Additional Comments By ES Alumni

- I am very proud to have graduated from this school and this program.
- A pioneering program that was ahead of its time. My hat's off to those who conceived it & made it happen.
- Greatest major at the best school on the planet. Maybe I'm exaggerating, but it's close.
- I felt that I received an excellent education from faculty who were passionate about their beliefs.
- I greatly admire the ES Program's continuous development and improvement over the past 30+ years.
- I would do anything to do it all over again!
- I'd love to be a course instructor at UCSB ES; then my life would be complete! Also my wife was also '78 ES grad and our first son is 2001 UCSB ES grad.
- Please keep up the fantastic work! Many of my students have and are coming to UCSB to study environmental studies/science.
- The E.S. Program changed my life and provided a very good foundation for an interesting and varied professional career.

Quotes From Alumni About UCSB's Environmental Studies:

• UCSB's Environmental Studies Program not only excited me about working on environmental issues, but helped me develop tools to do so effectively.

• The ES Program inspired me to dedicate myself to improving the quality of life and the environment by encouraging the transition to a sustainable energy future. I will always be grateful for the opportunity!

• I learned a tremendous amount while in the ES Program, and was always very grateful that I had an opportunity to participate in such a broad-based program about the environment. To this day, I feel I have a broader perspective on environmental issues than my peers due solely to my ES Program education.

• After a decade away from the Program, I am surprised and elated how invaluable the program has been for my career and personal life. When I was going through the Program, I had no idea how I would apply much of the information gained from the courses. As the years go by, I am more thankful to those who touched my life during my ES days!

• ES provided me more practical skills than my Business/Economics double major. The caring faculty and students made all the difference. It is a values program worthy of support and protection.

• I am very proud to be an UCSB ES graduate. The ES Program provided me a valuable foundation for my environmental career. Through ES, I learned what it truly means to be an environmental specialist/ professional. So many of my colleagues who came from other kinds of educational backgrounds do not understand how their careers are fundamentally rooted in the environmental movement.

• I have consistently found UCSB ES graduates to be the top candidates for positions for which I have been recruiting/hiring. My years in the ES Program stand out as a time of intense exploration, challenge, discovery, and satisfaction.

• The integrative approach of the program and the diversity of courses open to undergraduates were key factors in my success at grad school.

• You might mention to people who doubt the department's credibility that I have yet to regret in any way getting my degree in Environmental Studies. The broad science background has proven surprisingly useful; most companies are glad to teach you the specifics.

• I think the broad spectrum of insights has allowed for a true process to be attained for attacking problems. I've learned how to learn.

• I appreciated the staff, professors, fellow students and the overall experience of being an ES major at UCSB. I learned a lot, both in and out, of the classroom that I apply to my personal and professional life.

• I have used the best parts of my ES experience as templates for the current program I have designed for undergraduates at my campus (and previous elements I crafted while at UCLA and Stanford). In general ES gave me a wonderful interdisciplinary-focused appreciation for Environmental Challenges. I was vastly better prepared to understand, propose effective solutions to, and move beyond various environmental challenges than my peers who had not had an ES or ES-like preparation.

Importance of Academic Internships in Environemntal Studies

In 1973 the Environmental Studies Program initiated its own academic internship program (ESIP) to compliment a student's classroom education with practical hands-on experience in their field of interest. Each year hundreds of ES and Hydrologic Sciences students received academic credit by completing internship positions locally, statewide, nationally, and internationally. There are dozens of local agencies and hundreds of non-local internship opportunities accessible to ES students. Combined with appropriate course work, internships provide a stepping stone to a number of careers in environmentally related fields. For more ESIP information vis the ES Internship webpage at https://es.ucsb.edu/internships

Some Example Agencies ES Students Have Interned with Include:

Some Example Agencies ES Statients Have Internet with	n meluue.
Local	Non-Local Agencies
Cachuma Operations and Maintenance Board	Bureau of Land Management
California Solar	CA Governor's Office of Planning/Research
California State Fish and Game, SB Office	CA Student Sustainability Coalition
CALPIRG, UCSB Chapter	League of Conservation Voters, D.C.
Channel Islands Marine and Wildlife Institute	Monterey County Planning Department
Channel Islands National Marine Sanctuary	National Wildlife Federation, D.C.
Cheadle Center Biodiversity and Ecological Restoration, UCSB	Rocky Mountain Institute
City of Lompoc, Solid Waste Division	Santa Monica Mountains Natl. Recreation
City of Goleta, Planning and Development	Senator Dianne Fienstein, D.C.
City of Santa Barbara, Waste Management	Sea World, San Diego
City of Santa Barbara, Water Conservation	Science Applications International, NASA
Community Environmental Council	Tree People, Los Angeles
County of Santa Barbara, Planning Division	United Hemp Council
County of Santa Barbara, Energy Division	US Forestry Service
Demo to Design, Architectural reUse	US President's Council on Env. Quality, D.C.
Direct Relief International	Yosemite National Park
DUDEK Consulting	
Elipz Lighting Inc.	
Environmental Defense Center	
Fairview Gardens Organic Farm	
Gaviota Coast Conservancy	
Goleta Sanitary District	
Goleta Water District	
Land Trust for Santa Barbara	
Office of Assemblymember Das Williams	
Office of Senator Hannah-Beth Jackson	
Marine Science Institute, UCSB	
Mesa Lane Partners	
National Center for Ecological Analysis and Sythesis, UCSB	
Nuclear Age Peace Foundation, SB	
Patagonia Inc. Headquarters, Ventura	
Plow to Porch Organics, Inc.	
Santa Barbara Botanical Garden	
Santa Barbara Channel Keeper	
Santa Barbara Flood Control District	
Santa Barbara Natural History Museum	
Santa Barbara Wildlife Care Network	
Sprout Up (Education for Next Generation)	
Surfrider, Santa Barbara Chapter	
UCSB Facilities Management, Engergy Division	
UCSB Sustainability Program	
Ventura County Air Pollution Control Dist.	
Wild Local Seafood Co.	

Useful Academic Advising Info:

ES Academic Advising:

If you need advising for the Environmental Studies or Hydrological Sciences majors, or wish to talk about ES major requirements, course selection, internship opportunities, career info, graduate school opportunities, etc. please visit our advising webpage at <u>https://es.ucsb.edu/advising</u> It contains <u>Frequently Asked Questions (FAQ)</u> for answers to many common questions as well as the current ES Advising team schedule including availability for appointments via Zoom or drop-in office hours in Bren Hall 4316. Students are also welcome to email their questions to <u>advising@es.ucsb.edu</u> and can expect a response in approximately 1-2 business days. The following are some useful ES webpages you may want to visit:

- <u>ES Undergraduate Education Overview</u> page includes detailed info regarding ES Degrees Offered, How to Declare the Major, and Course Offered and Course Descriptions. <u>https://es.ucsb.edu/education</u>
- <u>ES Degrees Offered</u> hosts: All ES major requirement sheets, a *Four Year Plan and GE Worksheet*, and a *Supplemental Environmental Emphasis Worksheet*: <u>https://es.ucsb.edu/degrees</u>
- <u>Environmental Studies Student Programs</u> webpage includes: the ES Internship Program, Study Abroad, Senior Thesis, Field Studies, Research Opportunities, and ELI: <u>https://es.ucsb.edu/student-programs</u>
- <u>ES Resources</u> section includes: ES Program Scholarships (over \$40,000 a year available), Environmental Career Info, Graduate School Info, and lists of Campus and Local Environmental Organizations and Environmental Professional Associations with student chapters. <u>https://es.ucsb.edu/resources</u>

Additional Campus Advising & Student Services:

The College of Letters and Science Advising Office (1117 Cheadle Hall) may help students with: planning one's General Education program, understanding University requirements, policies ,and procedures, assessing progress to completing degree requirements, obtaining and submitting petitions, and evaluating all of your academic and transfer work, etc. <u>http://www.duels.ucsb.edu/advising</u>

Career Services (Bldg. 599) offers career workshops, career assessment, occupational information and professional networking options, part time job and internship listings, employment listings, job search strategies, and graduate school information. <u>http://career.sa.ucsb.edu</u>

Campus Learning Assistance Services - CLAS (Student Resource Building, Rm 3210) offers a wide range of tutorial and academic skills programs designed to assist students in attaining mastery of their university course material. In addition, CLAS has a staff of dedicated professional learning skills counselors to help students through the intricacies of subjects and skills as varied as calculus, organic chemistry, time management, and term paper composition (to name but a few). <u>https://clas.sa.ucsb.edu</u>

Education Abroad Program - EAP (2201 SAASB) is your academic link to studying around the world. Students in the University of California are fortunate to have available to them the premier study abroad program in the country. UC's Education Abroad Program has 247 programs in 150 universities worldwide, in 40+ countries on six continents. EAP enables students to spend some period of their academic career -- a year, a semester, a quarter or summer term --studying abroad. While abroad they remain fully enrolled UC students. <u>https://eap.ucsb.edu</u>

Undergraduate Counseling Services (Bldg. 599) provides personal counseling to assist students in resolving the personal and relationship concerns which could impede your academic progress. Our counselors will work with you to help you decide which direct services that might best meet your needs, and/or make appropriate referrals to other services with careful follow-up processes. <u>https://caps.sa.ucsb.edu</u>

An inspiring look at the past and future of the environmental movement through a revolutionary program, its graduates and faculty

DIRECTED BY

NARRATED BY

BULDNG

A MOVEMENT 50 Years of Environmental Studies at UCSB



Sparked by the first image of the Earth from the moon and the 1969 Santa Barbara Oil Spill, a movement was born. In its wake, the first undergraduate environmental education program of its kind was founded at UCSB. This inspiring documentary (USA, 28:26 minutes) by director Isaac Hernández explores the 50-year history of the multidisciplinary Environmental Studies Program at the University of California Santa Barbara, recounted by professors, students and graduates. Narrated by Jon Zuber. Original score by Sheena Birrittella. Produced by Cafe Solo Films, Mercury Press International.

Watch it Today for Free at: <u>https://vimeo.com/396369922</u>