

UNIVERSITY TRANSFER PLANNING RESOURCES

CSU Monterey Bay

<http://admissions.csumb.edu/>

California State University

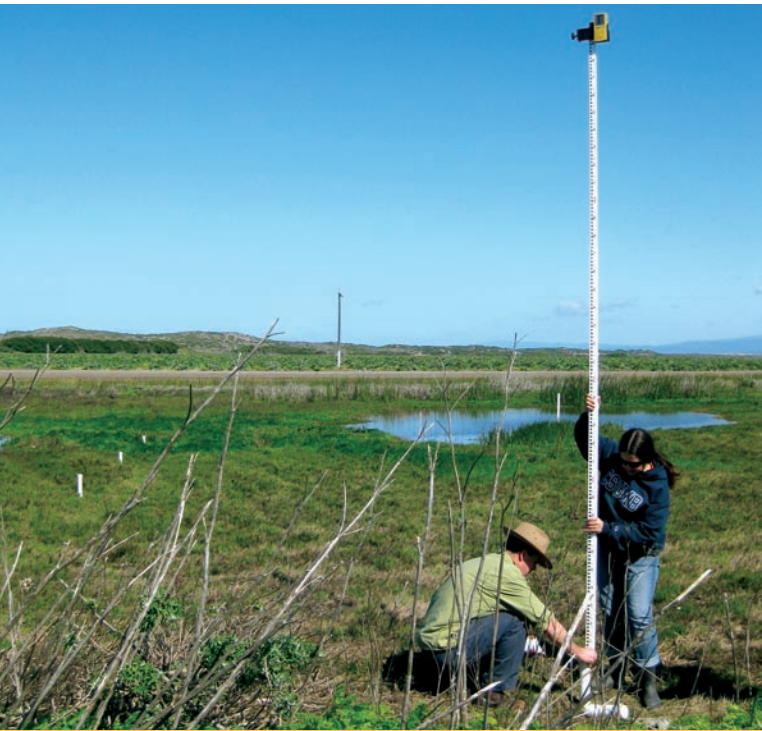
<http://www.csummentor.edu/>

University of California

<http://www.universityofcalifornia.edu/>

ASSIST: An Online Student-Transfer Information System

<http://www.assist.org/>



GE COMPLETION AT HARTNELL COLLEGE

Students may complete 39 units of the 48 CSU GE requirements at Hartnell College, thereby requiring only 9 upper-division GE semester units at CSUMB.

CONTENT DISCLAIMER

At the time of printing, the content included in this brochure represented the most accurate information available, however, articulation agreements change regularly. For the most up-to-date transfer agreements and graduation requirements, you are advised to meet with a counselor.



TRANSFER PROGRAM

Start your **Earth Science and Biology** studies at **Hartnell College** and complete your **Bachelor's of Science in Environmental Science, Technology & Policy** at **CSU Monterey Bay**



What can you do with a **Environmental Science, Technology & Policy** degree?

Aquarium manager
Animal breeder
Ecologist
Environmental consultant
Environmental educator
Environ. health specialist
Environmental planner
Fisheries biologist
Forest ranger
Geologist
GIS analyst
Hydrologist
Laboratory technician
Land surveyer
Land use consultant

Marine cartographer
Marine mammal technician
Marine research scientist
Marine technologist
Museum curator
Native plant specialist
Nature/interpretive guide
Scientific illustrator
Sewage plant operator
Statistician
Teacher
Technical writer
Water quality technologist
Watershed manager
Wetlands biologist



HARTNELL COLLEGE

Studying **Earth Science and Biology** at Hartnell College

The Earth Science program provides the opportunity for an interdisciplinary curriculum for students whose interests cross over into various areas of earth science. Students completing this discipline build a strong foundation in several aspects of earth science, preparing them to continue in the field.

The Biology program offers courses that are intended to create interest and enrichment through the study of living organisms and basic biological principles. The major courses provide a strong background in the biological sciences for students transferring to four-year institutions.

For more information contact faculty members:

Robert Barminski (rbarminski@hartnell.edu)

Alexander Edens (aedens@hartnell.edu)

Jeffery Hughey (jhughey@hartnell.edu)

Ann Wright (awright@hartnell.edu)

Start by making an appointment with a counselor

Hartnell can provide the courses you need to start a rewarding education that leads to a career in Environmental Science, Technology & Policy. Before beginning any college major or career path it is best to first talk to a counselor. The academic counselors at Hartnell College can give you career advice, help you plan your course schedule, and assist you in understanding the requirements for transfer to CSUMB. Schedule an appointment with **Ignacio Pando** at 831-755-6820 in Merrill Hall 21 (ipando@hartnell.edu) or **LaVerne Cook** at 831-755-6820 in CAB 371 (lcook@hartnell.edu)

CALIFORNIA STATE UNIVERSITY MONTEREY BAY

Environmental Science, Technology & Policy B.S.

The Environmental Science, Technology & Policy (ESTP) program offers an innovative interdisciplinary curriculum linking ecology, physical science, technology, economics, and policy. The program emphasizes the critical thinking and technical skills necessary to develop workable solutions to complex environmental problems. Unique in its commitment to linking science to environmental economics and social policy, ESTP provides students with active learning and applied research in marine, coastal, and watershed systems.

Environmental Science, Technology & Policy targets these goals:

- Enable students to evaluate environmental problems using scientific, technical, and analytical skills.
- Prepare students for leadership roles in which they contribute to effective policy solutions.
- Prepare students to pursue ethical and rewarding career pathways.

For more information contact faculty advisors:

Sharon Anderson (shanderson@csumb.edu)

Corey Garza (cogarza@csumb.edu)

Susan Alexander (salexander@csumb.edu)

Suzanne Worcester (sworcester@csumb.edu)

Division of Science and Environmental Policy Chapman Science Academic Center

100 Campus Center
Seaside, CA 93955-8001
831-582-3915 or 831-582-4110
email: sep_office@csumb.edu

Office Hours: Monday–Friday
8:30 a.m.–5:00 p.m.

<http://sep.csumb.edu/estp>

**Lower-Division Core Requirements
for all Environmental Science, Technology & Policy majors**

Hartnell College	CSU Monterey Bay
MAT 3A Analytic Geometry and Calculus I	MATH 150: Calculus I & MATH 150L: Lab
CHM 1A General Chemistry I	CHEM 110: Chemistry I & CHEM 110L: Lab
CHM 1B General Chemistry II	CHEM 111: Chemistry II & CHEM 111L: Lab
PHY 2A College Physics I OR PHY 4A General Physics/Mechanics	PHYS 220: Physics I & PHYS 220L: Lab
BIO 2 General Zoology AND BIO 3 General Botany <i>Please note: Students need to take both courses at the same institution</i>	BIO 240: Ecology, Evolution, and Biodiversity & BIO 240L: Lab AND BIO 242: Plant & Animal Form & Function & BIO 242L: Lab <i>Please note: Students need to take both courses at the same institution</i>
GEL 1 Dynamic Earth	GEOL 260: Geology and Hydrology & GEOL 260L: Lab
GEG 1 Introduction to Geography: Physical Elements OR MET 1 Weather and Climate	ENVS 272: The Atmosphere
POL 1 American Political Institutions	ENVS 283: Politics & the Environment
ECO 5 Principles of Economics-Micro	ENVS 284: Environmental Economics & Management

ESTP majors will complete all lower-division Core Requirements listed above and select one concentration and complete requirements listed below:

Marine & Coastal Ecology concentration requirements:	
MAT 3B Analytic Geometry and Calculus II	MATH 151: Calculus II & MATH 151L: Lab
No Equivalent at Hartnell College	STAT 250: Applied Statistics for Science and Technology
BIO 1 Fundamental Biological Concepts	BIO 241: Cellular and Molecular Biology & BIO 241L: Lab
Watershed Systems concentration requirements:	
MAT 3B Analytic Geometry and Calculus II	MATH 151: Calculus II & MATH 151L: Lab
No Equivalent at Hartnell College	STAT 250: Applied Statistics for Science and Technology
Science Education (Teacher Preparation) or Environmental Science Education concentration requirements:	
MAT 13 Elementary Statistics	STAT 100: Introduction to Statistics
BIO 1 Fundamental Biological Concepts OR BIO 10 General Biology	BIO 241: Cellular and Molecular Biology & BIO 241L: Lab OR BIO 204: Introduction to Life Sciences
Science and Social Justice concentration requirements:	
MAT 13 Elementary Statistics	STAT 100: Introduction to Statistics
BIO 1 Fundamental Biological Concepts OR BIO 10 General Biology	BIO 241: Cellular and Molecular Biology & BIO 241L: Lab OR BIO 204: Introduction to Life Sciences
Environmental Policy concentration requirements:	
MAT 13 Elementary Statistics	STAT 100: Introduction to Statistics
MAT 3B Analytic Geometry and Calculus II	MATH 151: Calculus II & MATH 151L: Lab

Additional CSUMB Graduation Requirements (non-GE) that may be taken at Hartnell College

CSS 43 Computer Systems and Internet Literacy	CST 101 or ENVS 300L
Foreign language up through the 3 rd semester	Foreign language up through the 3 rd semester

**Examples of Upper-Division Pathways
for Environmental Science, Technology & Policy majors**

CSU Monterey Bay	
Year 3	Year 4
Core requirements:	
ENVS 300: Reading, Writing & Critical Thinking	ENVS 400: Capstone Seminar I ENVS 403: Capstone Seminar II
Marine & Coastal Ecology concentration pathway example:	
STAT 250: Applied Statistics ENVS 309: Science & Policy of Global Change ENVS 332/L: Intro to GIS/GPS with Lab BIO 340/L: Ecology with Lab ENVS 384S: Environmental Justice and Policy Service Learning	BIO 345/L: Marine Biology with Lab ENVS 349S: Natural History Interpretation Service Learning ENVS 350/L: Quantitative Field Methods with Lab BIO 448/L: Aquatic Ecology with Lab ENVS 470: Marine Conservation Biology
Watershed Systems concentration pathway example:	
STAT 250: Applied Statistics ENVS 332/L: Intro to GIS/GPS with Lab BIO 340/L: Ecology with Lab GEO 360/L: Geomorphic Systems with Lab ENVS 387: Water Resources Assessment, Law, and Policy GEOL 460/L: River Hydrology, Assessment, and Monitoring with Lab	ENVS 309: Science & Policy of Global Change ENVS 349S: Natural History Interpretation Service Learning ENVS 350/L: Quantitative Field Methods with Lab ENVS 440: Environmental Modeling BIO 448/L: Aquatic Ecology with Lab
Science Education (Teacher Preparation) or Environmental Education concentration pathway example:	
ENVS 303/L: California Transect with Lab ENVS 332/L: Intro to GIS/GPS with Lab BIO 345/L: Marine Biology with Lab ENVS 349S: Natural History Interpretation Service Learning	CST 351: Web Design SBS 366/L: Research Methods in Social Science with Lab ENVS 384S: Environmental Justice and Policy Service Learning Upper-Division Science Electives
Science and Social Justice concentration pathway example:	
ENVS 332/L: Intro to GIS/GPS with Lab BIO 340/L: Ecology with Lab ENVS 384S: Environmental Justice and Policy Service Learning ENVS 387: Water Resources Assessment, Law, and Policy	SBS 366/L: Research Methods in Social Science with Lab ENVS 369S: Watershed Restoration Service Learning Upper-Division Science/Social Justice Electives
Environmental Policy concentration pathway example:	
ENVS 309: Science and Policy of Global Change ENVS 332/L: Intro to GIS/GPS with Lab BIO 340/L: Ecology with Lab ENVS 384S: Environmental Justice and Policy Service Learning ENVS 386: Science, Environment & Political Process	SBS 366/L: Research Methods in Social Science with Lab ENVS 580: Environmental & Resource Economics Upper-Division Science, Policy, or Economics Electives

University Learning Requirements (ULRs)

The State of California requires completion of a 48 unit General Education (GE) Breadth program that includes a minimum of 9 upper-division GE semester units. At CSUMB, these GE courses are identified as ULRs. ESTP majors can fulfill their upper-division ULR requirement by taking ENVS 300 (4 units) and one of the following Service Learning courses: ENVS 349S, ENVS 369S, or ENVS 384S (5 units each).

Graduation Wrting Assessment Requirement (GWAR)

ESTP majors fulfill this requirement with ENVS 300.

CSUMB Graduation Learning Outcomes:

CSUMB has four graduation learning outcomes, two of which are fulfilled in the ESTP major, and the other two of which (technology/information competence and 2nd language proficiency) may be completed at Hartnell with CSS 43 and the third semester of a foreign language.