

EARTH SYSTEMS OPTION

This option is offered within the following major(s):

- Environmental Sciences - College of Earth, Ocean, and Atmospheric Sciences (<http://catalog.oregonstate.edu/college-departments/earth-ocean-atmospheric-sciences/environmental-sciences-bs-hbs/>)

Also available via Ecampus (<http://ecampus.oregonstate.edu/>).

With the Earth Systems option, students will obtain a solid base in the sciences and they would be able to apply that base in an integrative way in order to build a strong knowledge traditionally referred to as natural history.

Option Code: 848

Code	Title	Credits
Required Courses		
Select from at least three categories below:		27
<i>Atmosphere</i>		
ATS 201	*CLIMATE SCIENCE	
ATS 310	METEOROLOGY	
ATS 411	THERMODYNAMICS AND CLOUD MICROPHYSICS	
ATS 412	ATMOSPHERIC RADIATION	
ATS 413	ATMOSPHERIC CHEMISTRY	
ATS 420	CLIMATE PHYSICS	
ATS 421	CLIMATE MODELING	
GEO 484	INTRODUCTION TO BIOGEOCHEMISTRY	
GEOG 323	*CLIMATOLOGY	
<i>Earth History</i>		
GEO 201	*PHYSICAL GEOLOGY	
GEO 203	*EVOLUTION OF PLANET EARTH	
GEO 308	*GLOBAL CHANGE AND EARTH SCIENCES	
GEO 370	STRATIGRAPHY AND SEDIMENTOLOGY	
GEO 481	GLACIAL GEOLOGY	
GEO 486	QUATERNARY PALEOCLIMATOLOGY	
GEO 488	QUATERNARY STRATIGRAPHY OF NORTH AMERICA	
<i>Earth's Surface</i>		
FE 430	WATERSHED PROCESSES	
GEO 322	SURFACE PROCESSES	
GEO 340	STRUCTURAL GEOLOGY	
GEO 431	ENVIRONMENTAL GEOCHEMISTRY	
GEO 432	APPLIED GEOMORPHOLOGY	
GEO 433	COASTAL GEOMORPHOLOGY	
GEO 484	INTRODUCTION TO BIOGEOCHEMISTRY	
GEO 487	HYDROGEOLOGY	
GEOG 423	SNOW HYDROLOGY	
<i>Oceans</i>		
GEO 484	INTRODUCTION TO BIOGEOCHEMISTRY	
OC 201	*OCEANOGRAPHY	
OC 332	COASTAL OCEANOGRAPHY	
OC 334	*POLAR OCEANOGRAPHY	
OC 430	PRINCIPLES OF PHYSICAL OCEANOGRAPHY	
OC 433	COASTAL AND ESTUARINE OCEANOGRAPHY	
OC 434/FW 434	ESTUARINE ECOLOGY	
OC 440	BIOLOGICAL OCEANOGRAPHY	
OC 450	CHEMICAL OCEANOGRAPHY	
OC 460	GEOLOGICAL OCEANOGRAPHY	
<i>Soils</i>		
CSS 205	*SOIL SCIENCE	

or SOIL 205 & SOIL 206	SOIL SCIENCE and *SOIL SCIENCE LABORATORY FOR SOIL 205
SOIL 366	ECOSYSTEMS OF WILDLAND SOILS
SOIL 435	ENVIRONMENTAL SOIL PHYSICS
SOIL 445	ENVIRONMENTAL SOIL CHEMISTRY
SOIL 455	BIOLOGY OF SOIL ECOSYSTEMS
SOIL 466	SOIL MORPHOLOGY AND CLASSIFICATION
SOIL 468	SOIL LANDSCAPE ANALYSIS
<i>Human-Environment Interaction</i>	
BI 347	*OCEANS IN PERIL
GEO 305	*LIVING WITH ACTIVE CASCADE VOLCANOES
GEO 306	*MINERALS, ENERGY, WATER AND THE ENVIRONMENT
GEO 307	*NATIONAL PARK GEOLOGY AND PRESERVATION
GEO 380	*EARTHQUAKES IN THE PACIFIC NORTHWEST
GEOG 324	*ECOLOGICAL BIOGEOGRAPHY
GEOG 350	*GEOGRAPHY OF NATURAL HAZARDS
GEOG 430	RESILIENCE-BASED NATURAL RESOURCE MANAGEMENT
GEOG 431	GLOBAL RESOURCES AND DEVELOPMENT
GEOG 432	*GEOGRAPHY OF FOOD AND AGRICULTURE
GEOG 440	CONFLICT, COOPERATION, AND CONTROL OF WATER IN THE US
GEOG 441	THE WORLD'S WATER
GEOG 450	LAND USE IN THE AMERICAN WEST
OC 333	OCEANS, COASTS, AND PEOPLE
<i>Methods</i>	
ATS 295	OBSERVING CLIMATE
GEOG 201	*FOUNDATIONS OF GEOSPATIAL SCIENCE AND GIS
GEOG 295	GEOGRAPHIC FIELD RESEARCH
GEOG 360	GISCIENCE I: GEOGRAPHIC INFORMATION SYSTEMS AND THEORY
GEOG 370	CARTOGRAPHY
GEOG 480	REMOTE SENSING I: PRINCIPLES AND APPLICATIONS

Total Credits 27

* Baccalaureate Core Course (BCC)

^ Writing Intensive Course (WIC)

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