

# ENVIRONMENTAL & SPATIAL SCIENCES, B.S.

## Major in Environmental & Spatial Sciences

Code	Title	Hours
<b>REQUIRED CORE GEOGRAPHY</b>		
GEOG 130	Intro to Environmental Science	3
GEOG 120	Human Geography	3
Physical Geography or Geomorphology - Choose 1 of the following:		3
GEOG 230	Physical Geography	
ESCI 225	Geomorphology	
GEOG 289	Field and Research Methods in Geography	3
GEOG 408	Sustainable Development	3
<b>REQUIRED SPATIAL SCIENCE</b>		
GEOG 281	Maps and GIS	3
GEOG 292	Quantitative and Spatial Analysis	3
GEOG 295	GIS I: Vector Data Analysis	3
GEOG 296	GIS II: Raster Data Analysis	3
<b>SPATIAL SCIENCE ELECTIVES</b>		
undefined - Choose 2 of the following:		6
GEOG 395	GIS for Web Development	
GEOG 384	Cartography	
GEOG 396	GIS Modeling	
GEOG 397	GIS Data Management	
<b>ENVIRONMENTAL STUDIES ELECTIVES</b>		
undefined - Choose 3 of the following:		9
GEOG 304	Water Resources Management	
GEOG 305	Energy Sustainability	
GEOG 306	Environmental Impact Assessmnt	
GEOG 307	US Environmental Policy	
GEOG 333	Biogeography	
GEOG 336	Climate And Society	
GEOG 407	Glbl Envrnmtl Policy/Negotiatn	
<b>REQUIRED CAPSTONE</b>		
undefined - Choose 1 of the following:		3-12
GEOG 300	Co-Op Ed Experience in Geog	
GEOG 488	Senior Thesis	
GEOG 489	Honors Thesis	
<b>Total Hours</b>		<b>45-54</b>

## Req Related for Environmental & Spatial Sciences

Code	Title	Hours
<b>REQUIRED RELATED ENVIRONMENTAL SCIENCE</b>		
BIOL 100	General Biology	3
CHEM 111	Introductory Chemistry 1	4
CHEM 112	Introductory Chemistry 2	4
Physical Geology or Intro to Oceanography - Choose 1 of the following:		4
ESCI 221	Physical Geology	
ESCI 261	Introduction to Oceanography	
MATH 161	Calculus 1	4

Physics I with Algebra or with Calculus - Choose 1 of the following: 4-5

PHYS 131 Physics 1 with Algebra

PHYS 231 Physics 1 with Calculus

### ENVIRONMENTAL SCIENCE REQ RELATED ELECTIVES

undefined - Choose 6 hours from: 6

BIOL 211 Concepts of Zoology

BIOL 221 Concepts of Botany

BIOL 340 Prspctv in Environm Awareness

BIOL 343 Principles of Ecology & Evolution

CHEM 235 Organic Chemistry

CHEM 265 Quantitative Analysis

CHEM 375 Environmental Chemistry

CHEM 476 Environmental Chemistry 2

ESCI 226 Geology of Earth and Energy Resources

ESCI 241 Meteorology

ESCI 245 Environmental Meteorology

ESCI 322 Environmental Hydrology

ESCI 326 Sedimentation and Stratigraphy

ESCI 329 Aqueous Geochemistry

ESCI 366 Marine Resources and Policy

ESCI 385 Global Climate Change: Sci & Policy

ESCI 422 Geological Field Mapping

ESCI 426 Groundwater Resources and Contamination

ESCI 466 Environmental Oceanography

OSEH 435 Environmental Health

PHYS 132 Physics 2 with Algebra

PHYS 232 Physics 2 with Calculus

A minor program of study is highly recommended. Examples include Biology, Chemistry, Computer Science, Earth Sciences, Environmental Chemistry, Environmental Hazards and Emergency Management, Environmental Policy Regulation, General Economics, Geology, Government and Political Affairs, Hydrology, Industrial and Environmental Health, Land Use, Mathematics, Meteorology, Occupational Safety Environmental Health, Oceanography, Physics, Quantitative Methods in Environmental Science, Science Writing, Social Justice, Sustainability Studies, Water Resources.

**Total Hours**

**29-30**