

# Environmental Studies: Environmental Geomatics

*Environmental Studies is an interdisciplinary program that investigates interactions between humans and their environment. This includes physical and biological aspects in addition to the highly modified human-made environments such as urban and agricultural systems.*



*Provides students in depth understanding of geographic information systems, remote sensing and the fundamental skills needed to study geospatial environmental issues that integrate social, economic, physical and biological systems. Graduates are prepared to conduct resource monitoring and management, to study complex environmental problems at local and global scales and to inform environmental policy and are immediately employable in either the private or public sector.*

## **Required Courses**

### **Environmental Core:**

ENVS 201 – Foundations in Environmental Science I  
ENVS 201L – Foundations in Environmental Science I Lab  
ENVS 202 – Foundations in Environmental Science II  
ENVS 202L – Foundations in Environmental Science II Lab  
ENVS 462 – Environmental Capstone

### **Additional Requirements:**

ENVS 390 – Geographic Information Systems  
ENVS 391 – Remote Sensing  
ENVS 395 – Advanced GIS  
ENVS 461 – Environmental Research  
MATH 314 – Statistics  
PHYS 302 – Physical Computing

## **Elective Courses**

### **Foundational Sciences (choose three):**

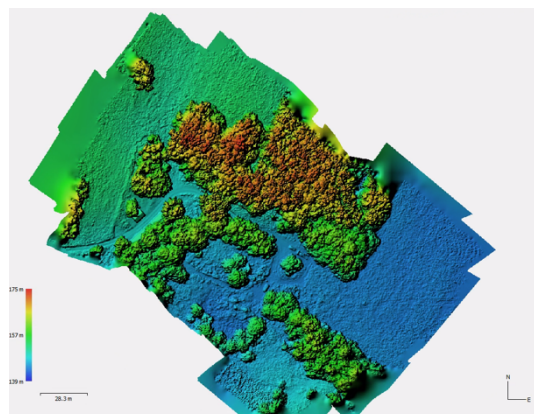
BIOL 211 – Fundamentals of Biology I: Molecular and Cellular Function  
BIOL 212 – Fundamentals of Biology II: Diversity of Life  
CHEM 207 – General Chemistry I, CHEM 207L - General Chemistry I Laboratory  
CHEM 209 – General Chemistry II, CHEM 209L - General Chemistry II Laboratory  
MATH 207 – Calculus I  
MATH 208 – Calculus II  
PHYS 201 - College Physics I, PHYS 201L - College Physics I Laboratory  
PHYS 202 - College Physics II, PHYS 202L - College Physics II Laboratory  
PHYS 221 - General Physics I, PHYS 221L - General Physics I Laboratory  
PHYS 222 - General Physics II, PHYS 222L - General Physics II Laboratory

### **Geomatics Electives (choose two):**

ENVS 393 – Geospatial Statistics  
ENVS 394 – GIS instrumentation  
ENVS 396 – Photogrammetry

### **Physical Science Electives (choose two):**

CHEM 333 – Environmental Chemistry AND  
CHEM 333L – Environmental Chemistry Lab  
ENVS 341 – Sustainable Energy and Lab  
ENVS 441 – Hydrology and Lab  
GSCI 301 – Physical Geology  
GSCI 303 – Meteorology  
GSCI 306 – Introduction to Oceanography and Lab  
PHYS 301 – Energy



### **Biological Science Electives (choose two):**

BIOL 303 – General Ecology  
BIOL 363 – Mycology  
BIOL 383 – Ornithology  
ENVS 300 – Integrated Pest Management and Lab  
ENVS 301 – Wildlife Management and Lab  
ENVS 302 – Forestry Management and Lab  
ENVS 362 – Soil Science  
ENVS 401 – Conservation Ecology  
ENVS 422 – Stream Ecology

### **Social and Economic Electives (choose two):**

BADM 338 – Business Information Systems  
BADM 340 – Principles of Marketing  
DATA 118 – Data Analytics Introduction  
GEOG 105 – World Cultural Geography  
GEOG 301 – World Economic Geography  
SOCI 307 – Population and Development