B.S. in Environmental Geospatial Technologies

Gain professional experience with a STEM degree that prepares you for high-tech careers in government, business, consulting, and environmental non-profit organizations. Geospatial Technology is an emerging field of study that includes Geographic Information System (GIS), Remote Sensing (RS) and Cartography. Geospatial technology enables us to acquire data that is referenced to the earth and use it for analysis, modeling, simulations and visualization.

Program Features

+ One-on-one academic and professional advising as our world-class faculty and trained staff strive to make your professional and academic goals a reality.

+ Unity College is an accredited institution by New England Commission of Higher Education (NECHE).

+ Experiential Online. Experiential programs are delivered 100% online with field work designed with the working professional in mind.

+ Study when and where you want and finish your degree while still working full-time.

+ Make professional connections with leaders in your field.

+ Get job placement assistance through our career services department.

+ Transfer friendly! We will accept up to 90 credits.

Job Outcomes, Growth*, & Salary**

Map Technician
$45k  +2

Cartographer
$64k  +15

Geographer / GIS Specialist
$63k  +9.3

Surveyor
$61k  +11.2

*Projected 10-year growth
**National median salary
Source: O*Net
B.S. in Environmental Geospatial Technologies

The B.S. in Environmental Geospatial Technologies focuses on professional and applied Geographic Information Systems (GIS). Geospatial technology is one of the fastest growing industries and can be applied to multiple disciplines, ranging from environmental sustainability to emergency response. Students will complete applied, project-based coursework and a senior capstone project tailored to the professional skills required to further the student’s career.

Job Outcomes, Growth*, & Salary**

Map Technician
Median Salary: $45k
Growth: +2
Map technicians survey land to obtain data used for construction, mapmaking, boundary location, mining, or other purposes. In creating maps they use source data such as surveying notes, aerial photography, satellite data, or other maps.

Cartographer
Median Salary: $64k
Growth: +15
Cartographers are responsible for all of the aspects of map-making which include: scientific, technological, and artistic aspects. Cartographers research, collect, store, retrieve, evaluate, and manipulate all of the data in the designated area.

Geographer / GIS Specialist
Median Salary: $63k
Growth: +9.3
GIS Specialists are responsible for data analysis, programming, and cartography. Job tasks include: analyzing spatial data through mapping software and designing digital maps with geographic data and various other data sets.

*Projected 10-year growth  **National median salary  Source: O*Net
Graduates of the B.S. in Environmental Geospatial Technologies will be able to:

+ Create, organize, interpret, and analyze geospatial data.
+ Identify and quantify environmental geospatial patterns.
+ Use geospatial technology to help address local, regional, and global environmental problems.
+ Develop GIS workflows and solutions based on the environmental needs.
+ Collect and analyze data from various geospatial sources.

Program Core
- CIST 101 Introduction to Coding for Environmental Applications
- COMM 303 Communicating to Stakeholders
- BIOL 305 Conservation Biology OR ENCJ 305 Natural Resource Law
- GISC 101 Introduction to Geographic Information Systems (GIS)
- GISC 201 Geographic Information Systems for a Changing World
- GISC 301 Applied Spatial Analysis and GIS Application
- GISC 303 Conservation Cartography and Visualization
- GISC 305 Environmental Impact Using Remote Sensing
- GISC 307 Field Data Collection for GIS
- GISC 401 Advanced GIS for Environmental Solutions

Environmental Professional Core
- EVPC 101 Professional Skills
- EVPC 301 Environmental Justice OR EVPC 305 Building a Better World: Ethical Decision-Making
- EVPC 401 Transformational Leadership
- EVPC 490 Transdisciplinary Capstone

General Education Core
- BIOL 103 Biology: Foundations of Life
- BIOL 104 Biology: Foundations of Life Laboratory
- BIOL 105 Biological Diversity, Ecology, and Evolution
- BIOL 106 Biological Diversity, Ecology, and Evolution Laboratory
- ENVS 201 The Warming Planet: Understanding Climate Change
- MATH 101 College Algebra for Environmental Professionals
- MATH 201 Statistics for Environmental Professionals
- PSYC 101 Introduction to Psychology
- An Arts course
- 2 Communications courses
- Check here if only one COMM course complete
- A Humanities course
- A Language course

General Electives
- 40 credits of general electives

College Wide Requirements
A minimum of 120 earned credit hours, 30 credits at the 300 level or above, a minimum of 30 credits earned at Unity, and an overall cumulative GPA of 2.0 or above
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+ Develop GIS workflows and solutions based on the environmental needs.
+ Collect and analyze data from various geospatial sources.

General Education Foundation Requirements

- BIOL 103 Biology: Foundations of Life
- BIOL 104 Biology Laboratory 1
- BIOL 105 Biological Diversity, Ecology, and Evolution
- BIOL 106 Biology Laboratory 2
- MATH 201 Statistics for Environmental Professionals

Environmental Professional Core

Required:
- EVPC 101 Professional Skills
- EVPC 490 Transdisciplinary Capstone
- EVPC 401 Transformational Leadership

Choose From:
- EVPC 301 Environmental Justice OR EVPC 305 Building a Better World: Ethical Decision-Making

Program Core

- CIST 101 Introduction to Coding for Environmental Applications
- COMM 303 Communication to Stakeholders
- BIOL 305 Conservation Biology OR ENCJ 305 Natural Resource Law
- GISC 101 Introduction to Geographic Information Systems (GIS)
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- GISC 305 Environmental Impact Using Remote Sensing
- GISC 307 Field Data Collection for GIS
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College Wide Requirements

A minimum of 120 earned credit hours, a minimum of 30 credits earned at Unity, and an overall cumulative GPA of 2.0 or above
Undergraduate Concentrations

- **Emergency Disaster Management**
  Learn how to proceed in the face of disaster to protect our environment.

- **Renewable Energy**
  Learn about the many forms of renewable energy and how to put them into practice.

- **Environmental GIS**
  Learn all of the skills for different types of map making.

- **Hemp Industry & Science**
  Learn the laws and processes of the CBD industry.

- **Environmental Justice & Social Change**
  Learn about the different types of environments and how to protect them.

- **Wildlife Ecology**
  Learn about the impacts of wildlife and how to manage it.

- **Animal Health & Behavior**
  Learn about how to understand, train & care for a variety of animals.

- **Marine Biology & Sustainable Aquaculture**
  Learn about all aspects of Oceanography, from vegetation to mammals.

- **Sustainable Business**
  Learn the Business Strategies for operating Sustainable Businesses.

- **Sustainable Food & Farming**
  Learn the systems that create a Sustainable Food culture.

- **Adventure Ecotourism**
  Learn how to bring adventure to clients while respecting the environment.