B.S. in Marine Biology and Sustainable Aquaculture

Do you love the ocean, are passionate about the marine environment, and want a rewarding career working by the ocean? As a Marine Biology and Sustainable Aquaculture student, you will learn the biological connections between the world’s oceans, the promise and future of the aquaculture industry, and how we can all contribute to a sustainable marine environment.

Cost: $470 per credit
Military Discount: $423

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.
B.S. in Marine Biology and Sustainable Aquaculture

The B.S. in Marine Biology and Sustainable Aquaculture prepares students for a broad range of careers helping protect, preserve, maintain, and grow marine organisms and environments. This degree provides students with a broad emphasis on both marine biology and aquaculture and encompasses coursework with the rigor to prepare students for further study in graduate school or even starting their own aquaculture enterprise.

Job Outcomes, Growth*, & Salary**

Aquaculture Manager
Median Salary: $48k
Growth: +8
Aquaculture Managers direct and coordinate the activities of the employees that work in fish hatchery production for corporations, cooperatives, or other owners. They are also responsible for growing fish and shellfish as cash crops or for release into freshwater or saltwater.

Marine Scientist
Median Salary: $72k
Growth: +5
Marine Scientist research life in the oceans, other saltwater environments, and other wetlands. They are responsible for observing and documenting data on experiments on marine life. They may also be responsible for rehabilitation efforts.

Fisheries Biologist
Median Salary: $60k
Growth: +5
Fisheries Biologist are responsible for studying fish and supervising efforts to conserve their natural habitats. They collect samples from wetlands and document their research and data.

*Projected 10-year growth  **National median salary  Source: O*Net
Graduates of the B.S. in Marine Biology & Sustainable Aquaculture will be able to:

+ **Explain** the underlying biological principles and functioning of marine and aquatic organisms at structural levels ranging from molecular to ecosystem.

+ **Choose and implement** appropriate laboratory and field techniques used in marine organismal observation, research, management, and care, including those in wild, cultured, and farmed settings.

+ **Compare and contrast** the major types and components of aquaculture systems, species, and factors as they relate to both environmental and systematics sustainability.

+ **Create** local, regional, and global solutions to environmental problems in marine biology and aquaculture.

+ **Critically evaluate** information using scientific and quantitative reasoning skills.

**Program Core**

- **BIOL 203** Ecological Principles: Applications to Conservation and Wildlife
- **CHEM 101** Chemistry I
- **CHEM 102** Chemistry I Laboratory
- **MBAQ 105** Introduction to Oceanography
- **MBAQ 201** Form and Function of Unique Marine Ecosystems
- **MBAQ 203** Global Diversity of Freshwater and Marine Resources Used in Sustainable Harvest
- **MBAQ 301** Sustainable Aquaculture Techniques I: Growing Shellfish and Finfish
- **MBAQ 303** Sustainable Aquaculture Techniques II: Crustaceans and Pathobiology
- **MBAQ 307** Ichthyology and Fish Health
- **MBAQ 310** Marine Mammal and Seabird Biology OR **MBAQ 315** Diversity of Marine and Aquatic Vegetation
- **MBAQ 401** Field Research in Marine Biology and Aquaculture

**Environmental Professional Core**

- **EVPC 101** Professional Skills
- **EVPC 201** Environmental Issues: Deforestation, Biodiversity Loss, and Overpopulation OR **EVPC 202** Environmental Issues: Energy, Water Scarcity, and Waste
- **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
- **An Arts course**
- **2 Communications courses**
  - Check here if only one COMM course complete
- **A Humanities course**
- **A Language course**
- **A Social Science course**

**General Electives**

- 39 credits of general electives*

*Students looking to attend graduate school should take Calculus, Chemistry II with lab, Organic Chemistry I with lab, Physics 1 & 2 with labs, Cell Biology, Microbiology, Wildlife Conservation Genetics, and Biochemistry with lab. Additional recommended options include 1 credit courses such as Scientific Diving and Small Boat Handling, Operation, and Maintenance.

**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.
Graduates of the B.S. in Marine Biology & Sustainable Aquaculture will be able to:

+ **Explain** the underlying biological principles and functioning of marine and aquatic organisms at structural levels ranging from molecular to ecosystem.

+ **Choose and implement** appropriate laboratory and field techniques used in marine organismal observation, research, management, and care, including those in wild, cultured, and farmed settings.

+ **Compare and contrast** the major types and components of aquaculture systems, species, and factors as they relate to both environmental and systemsatics sustainability.

+ **Create** local, regional, and global solutions to environmental problems in marine biology and aquaculture.

+ **Critically evaluate** information using scientific and quantitative reasoning skills.

### Environmental Professional Core

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

**Choose From:**
- EVPC 201 Environmental Issues: Deforestation, Biodiversity Loss, and Overpopulation OR

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

### 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
- MATH 201 Statistics for Environmental Professionals

### 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 disasters to protect our environment.

Environmental Justice & Social Change
Protect our environment through policies and social change.

Marine Biology & Sustainable Aquaculture
Explore all aspects of oceanography, from vegetation to mammals.

Wildlife Ecology
Understand how to manage different types of wildlife.

Sustainable Business
Develop sustainable business solutions and strategies for a modern world.

Renewable Energy
Explore green technologies, such as wind, solar, geothermal and biomass power.

Sustainable Food & Farming
Learn the systems that create a sustainable food culture.

Environmental GIS
Develop in-demand Geographic Information Systems (GIS) mapping skills.

Animal Health & Behavior
Explore fundamental aspects of animal training and care.

Sustainable Food & Farming
Learn the systems that create a sustainable food culture.

Hemp Industry & Science
Explore the potential of the hemp industry and its products.

Adventure Ecotourism
Bring adventure to clients while respecting the environment.