

COLLEGE OF THE ENVIRONMENT AND LIFE SCIENCES
Undergraduate Programs

Program (Source: URI Websites)	Website Address	Mission *M = comprehensive mission statement, D = descriptive mission statement, I = in-between, N = no mission statement	*	Gen Eds
College of Environmental and Life Sciences	http://www.uri.edu/ cels/	The College of the Environment and Life Sciences maintains a small-college atmosphere in the midst of a vibrant, world-class research university. As a student, you'll be able to enjoy the best of both types of educational settings! We offer world-class training in the basic sciences, combined with the hands-on learning that will shape you into a successful problem solver. You'll have the opportunity to study and learn in our prestigious research laboratories and community outreach settings, where you can gain important real-world experiences that give you a competitive edge in your career. Our internationally respected faculty members are student-oriented and are winners of numerous teaching awards. Our professors are nationally recognized leaders in the research community, conducting cutting-edge science critical to the needs of the global community. You'll have many opportunities to gain experience and knowledge through: internships, research, teaching apprenticeships, fellowships, research cruises, field trips, and study-abroad settings. Our students graduate with a wealth of knowledge and real ability in their fields. They develop well-honed skills that prepare them to be practitioners, scientists, physicians, managers, and policy makers destined for key roles in the life sciences and in the stewardship of our environment. Job prospects for students in this college are extremely good because our graduates are well-trained and, if they have pursued hands-on opportunities, have experience in their fields by the time they finish their degree programs. (http://www.uri.edu/cels/whychoose/aboutcels.html)	D	
Animal Science & Technology: B.S.	http://www.uri.edu/ cels/acaddept/anim scitech.html	This major is designed for students interested in applied animal science careers. Options are available in veterinary medicine, animal sciences, and laboratory animal science. Students who would like to use their study in animal science as credentials for secondary-school teaching should also enroll in this major.	D	No
Aquaculture & Fisheries Technology: B.S.	http://www.uri.edu/ cels/acaddept/aqfis htech.html	The Aquaculture and Fisheries Technology major offers a number of aquatic and marine-related subjects with opportunities for developing both theoretical and practical skills. Laboratory training is supplemented with instruction on board the department's teaching and research vessel, the Captain Bert. Students may elect to concentrate in aquaculture, fisheries science, fisheries technology, or nautical science. Concentrations in aquaculture and fisheries science can be tailored to prepare students for entry into graduate school.	D	No

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Biology: B.A.	http://www.uri.edu/artsci/bio/ http://www.uri.edu/artsci/bio/bio_bacurric.html	<p>The Department of Biological Sciences offers sound undergraduate training in basic biology. Students are able to focus on the study of animals (zoology) or plants (botany). Close access to the sea provides an ability for students to pursue an exciting marine emphasis in some programs. The breadth of faculty teaching and research interests allows students to gain some specialization in subdisciplines of biology such as ecology and evolutionary biology, cell and developmental biology, physiology, and molecular biology. Undergraduate degree programs in Biological Sciences include the Bachelor of Arts in Biology [offered jointly with the Department of Biochemistry, Microbiology, and Molecular Genetics], the Bachelor of Science in Biological Sciences, the Bachelor of Science in Marine Biology, and the Bachelor of Science in Environmental Plant Biology [offered jointly with the Department of Plant Sciences]. Because of the stress on basic biology and the supporting sciences of mathematics, chemistry, and physics, these degrees offered by the Department assist students with interests in the health and environmental sciences, or those students who understand the advantage in a broad background in biology at the undergraduate level.</p>	D N	N N
Biological Sciences, B.S. - Pre-Med	http://www.uri.edu/artsci/bio/ Or http://www.uri.edu/artsci/bio/bio_bscurric.html		D N	N N
Clinical Laboratory Science: B.S.	http://www.uri.edu/cels/acaddept/clinlabsci.html	<p>The Clinical Laboratory Science major is concerned with the diagnosis, treatment, and prevention of disease using analytical methods in the clinical laboratory. Flexibility in the curriculum permits the student to fulfill requirements for a degree in another major such as microbiology, zoology, or related health sciences.</p>	D	N
Coastal & Marine Policy & Management: B.S.	http://www.uri.edu/cels/acaddept/coastmarpolmgt.html	<p>The primary objective of the major is to educate students in the interdisciplinary analysis needed for effective marine and coastal management. Students gain familiarity with issues confronting the policymaker and manager at the local, state, regional, national, and international levels. Students also develop an understanding of the socioeconomic, political, and legal effects of decisions and their implications. Specialty areas in this major include: fisheries and marine ecosystems management, coastal management, maritime transportation and ports, and ocean policy.</p>	I	N
Coastal & Marine Policy Studies: B.A.	http://www.uri.edu/cels/acaddept/coastmarpolstu.html	<p>The primary objective of the major in Coastal and Marine Policy Studies is to educate students in the interdisciplinary analysis needed for effective marine and coastal management. Students gain familiarity with issues confronting the policymaker and manager at the local, state, regional, national, and international levels. In addition, students develop an understanding of the socio-economic, political, and legal effects of decisions and their implications. Specialty areas in this major include: fisheries and marine ecosystems management, coastal management, maritime transportation and ports, and ocean policy.</p>	I	N

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Environmental Economics & Management: B.S.	http://www.uri.edu/cels/acaddept/envirecon.html	This major is offered in cooperation with the Department of Natural Resources Science. It is designed to give students a more in-depth understanding of the natural world as it relates to the economy. Students are taught to weigh options and make important decisions concerning the protection, restoration, development, and use of our natural resources. They develop an academic foundation in both the natural and social sciences so as to understand the interactions between human society and our natural or environmental resources. The major is designed as a blend of the existing majors of Environmental Science and Management and Resource Economics and Commerce.	I	N
Environmental Horticulture & Turf Management: B.S.	http://www.uri.edu/cels/acaddept/urbhorturf.html	The major in Environmental Horticulture and Turfgrass Management engages students in the culture and use of plants for the enhancement of the human environment. Students receive hands-on training in both the natural and social sciences so as to be prepared for professional careers in the many fields of environmental horticulture.	D	N
Environmental Science & Management: B.S.	http://www.uri.edu/cels/acaddept/envscimgt.html	The Environmental Science & Management major prepares students for professional careers in the public and private sectors of natural resources management. Flexible course requirements allow students to develop individual areas of concentration in preparation for a variety of positions after graduation. Areas of concentration include: Biological or Ecological Science Watersheds and Environmental Quality Methods in Environmental Science Natural Resources Management Economics, Planning, Policy & Law This major incorporates multidisciplinary course work in water resources, wetland ecology, wildlife biology, soil science, forestry, and land use/environmental quality relationships, along with other disciplines. This is a comprehensive major that requires the same broad-based background as the other majors within the Department of Natural Resources Science, but students are allowed more flexibility in choosing supporting courses.	I	N
Environmental Plant Biology: B.S.	http://www.uri.edu/artsci/bio/ Or http://www.uri.edu/artsci/bio/bio_bsplanntcurric.html Or http://www.uri.edu/cels/acaddept/envplantbio.html	* Or ---- Or This joint major, offered by the College of the Environment and Life Sciences and the College of Arts and Sciences, approaches the study of plants broadly, from molecular genetics to ecological community dynamics. The environmental and performance impacts of these endeavors in natural, agricultural, and horticultural settings are considered. It takes a worldwide view of the effect of plants on people and the environment. Genetics and molecular biology are studied as a means to improve plants for human use and environmental enhancement. A fundamental goal of the study of plants is to achieve stability in landscapes managed for environmental or agricultural purposes. Courses include means to improve plants, for human use and environmental enhancement, through genetics and molecular biology.	D N I	N N Y

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Geology & Geological Oceanography: B.S.	http://www.uri.edu/cels/acaddept/geol_ocean.html	<p>Oceanography, the study of the oceans, relies on geology, the basic study of the Earth. In this unique program, which takes advantage of URI's obvious strength in maritime studies, geology and oceanography are coupled.</p> <p>For those interested in the oceans, oceanic physical and biological processes, climates, global nutrient and elemental cycling, and the interaction of the oceans with the atmosphere, this program provides a thorough grounding in basic sciences and the flexibility to enter virtually any field in geology and oceanography.</p> <p>The Geology and Geological Oceanography major is offered jointly through the Geosciences Department and the Graduate School of Oceanography. It includes a comprehensive background in geology and a solid introduction to geological oceanography. Students are advised by faculty members from both the Geosciences Department and the Graduate School of Oceanography.</p>	D	N
Geosciences: B.S.	http://www.uri.edu/cels/acaddept/geosci.html	<p>Geosciences is the basic science of the Earth and, as such, it integrates knowledge from all the natural sciences.</p> <p>Geologists deal with environmental issues such as groundwater resources and shoreline development, geohazard issues such as volcanic eruptions and earthquakes, economic issues such as the exploration for and production of energy and mineral resources, and basic research into the origin and evolution of the Earth and other planets.</p> <p>Geology is both an outdoor and laboratory science, with opportunity to concentrate on either or both.</p> <p>Students in the curriculum may elect one of the following options: general geology, environmental geology, geophysics, petrology, hydrogeology, or sedimentary geology.</p>	D	N
Landscape Architecture: B.L.A.	http://www.uri.edu/cels/acaddept/land_sarch.html	<p>Landscape Architecture is a curriculum leading to the Bachelor of Landscape Architecture degree (BLA).</p> <p>Accredited by the American Society of Landscape Architects, the curriculum is designed to educate undergraduates for professional careers in the public and private sectors of landscape architecture that involve the design, planning, preservation, and restoration of the landscape, using the application of both art and science to achieve the best use of our land resources.</p> <p>Landscape architects engage in the design and planning of parks and recreation areas, new communities and residential developments, urban spaces, waterfronts and pedestrian environments, commercial centers and resorts, corporate and institutional campuses and transportation facilities.</p> <p>Their professional skills may also be used to prepare natural, historic, and coastal landscape preservation projects.</p>	I	N

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Marine Biology: B.S.	http://www.uri.edu/artsci/bio/marbio/m_bio_main.html	<p>URI is a leader in marine research and offers over 250 undergraduate and graduate courses on marine and environmental topics, such as Resarch Diving Methods, Introduction to Aquaculture, Fishery Science, Maritime New England, Global Change, Peoples of the Sea, and many others. Undergraduates may select from any of the undergraduate courses and, with appropriate preparation, many of the graduate courses listed in the URI catalog.</p> <p>There are many opportunities to get involved in marine activities. Internships at institutions such as the Mystic MarineLife Aquarium, the RI Department of Environmental Management, and the US EPA have been very helpful to many marine biology students. Many Marine Biology students choose to study away from the University, often going to Bermuda, England, or Australia for a semester.</p> <p>After graduation, many students want to start a career in marine biology immediately, others want to continue their education in graduate school. As in all fields, jobs and admission to graduates school are competitive. Your education in marine biology at URI prepares you for a wide variety of positions in government or private industry, teaching, and many others. For thse who wish to pursue academic or research careers, graduate education probably will be necessary. To see where some of our graduates have landed, go to our Alumni News page.</p>	I	N
Microbiology: B.S. - Biotechnology	http://www.uri.edu/cels/acaddept/micro.html	<p>Microbiology is an exciting field with challenging frontiers that include genetic engineering, cancer research, cellular mechanisms of infection, basic research in cell and molecular biology, and microbial ecology.</p> <p>Microbiologists today apply new technical approaches such as gene cloning, electron microscopy, and computer technology to bacteria, viruses, algae, protozoa, fungi, and to animal and plant cells.</p> <p>This major meets the guidelines of the American Society for Microbiology. It prepares students for work in a wide variety of scientific areas including medicine, molecular genetics, biotechnology, and the pharmaceutical industry, as well as many other aspects of the biosciences.</p> <p>The student develops a strong background in chemistry, which is excellent preparation for graduate school and the professional schools.</p>	I	N
Nutrition & Dietetics: B.S.	http://www.uri.edu/cels/acaddept/nutrdiet.html	<p>The Nutrition and Dietetics major prepares students for careers in nutrition-related fields. Within the major, students select either the Nutrition or the Dietetics options.</p> <p>The Dietetics option is required of all students planning to become registered dietitians. URI's program is accredited by the American Dietetic Association. This option provides students with an academic background in clinical, community, and administrative dietetics.</p> <p>The Nutrition option is for students who want to study nutrition but do not plan to become registered dietitians. Using this option, students have the opportunity to design their own programs by combining training in nutrition with other areas that interest them.</p>	D	N
Resource Economics & Commerce: B.S.	http://www.uri.edu/cels/acaddept/resecon.html	<p>Resource Economics and Commerce is an exciting undergraduate major that trains students to address many of today's challenging issues regarding natural resources.</p> <p>This major involves weighing options and making important decisions about environmental quality, the management of our international fisheries and other marine resources, and optimal use of land and water resources.</p> <p>Students gain a broad education focused on resource economics, economics, and natural resources sciences. There is considerable flexibility in choosing courses.</p>	D	N

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Water & Soil Science: B.S.	http://www.uri.edu/cels/acaddept/wtrsoil.html	<p>Water and soil are the foundation and structure of every ecosystem. Studies of soil and water provide the framework for understanding environmental quality, resource management, terrestrial ecology, and the fate and transport of pollutants in the environment.</p> <p>The Water & Soil Science major integrates classroom and hands-on experiences in the field of watershed science, pedology, hydrology, land use, wetlands, geomorphology, and surficial geology.</p> <p>This major is designed to meet the growing demand for training in the science and management of land and water resources. Course tracks in soil science and water resources provide in-depth training in specific, career-related disciplines. With proper course selection, students are eligible for professional certification by the American Society of Agronomy and the Soil Science Society of America. The water and soil science major provides a strong background for work in state and federal regulatory agencies or consulting firms that address land use or environmental contamination issues.</p>	I	N
Wildlife & Conservation Biology: B.S.	http://www.uri.edu/cels/acaddept/wildlife.html	<p>The major in wildlife and conservation biology prepares students for professional careers in the public and private sectors of wildlife biology.</p> <p>Wildlife biologists are professionals concerned with scientific management of the earth's wildlife species and their habitats. They work in the areas of preservation, conservation, and management of wildlife species.</p> <p>Students enrolled in the Wildlife & Conservation Biology major study the natural sciences as well as principles of managing wildlife populations and their habitats.</p> <p>This major fulfills educational requirements to become a Certified Wildlife Biologist recognized by the Wildlife Society of America, an international professional organization.</p> <p>In addition, wildlife majors meet educational requirements for state and federal employment in the wildlife profession.</p>	D	N