

MAP THE FUTURE ENVIRONMENTAL SCIENCE

A Guide For
Optimizing Your Degree



This career map provides a general blueprint of how to navigate your under-graduate program. The map highlights quality experiences to supplement your coursework and identify academic milestones for years one through four.

Take advantage of the rich resources the university and Chattanooga community have to offer as you prepare for post-college years. During your time here, forge connections, participate in organizations and utilize exploratory learning options to gain real-world experiences outside of the classroom.

ABOUT THE COLLEGE OF ARTS AND SCIENCES

Our mission is to provide an environment for intellectual curiosity and a foundation for life-long learning, thinking, reflection and growth. We do this by: equipping students with transferable skills, encouraging cultural and intellectual diversity and advancing knowledge through research and creative activities.

Small classes, careful advising and personal attention make our commitment work for students majoring in the fine arts, the humanities, the sciences and behavioral sciences, and for students preparing for professional study through a liberal education.

YOUR ENVIRONMENTAL SCIENCE DEGREE

In addition to teaching, our faculty are engaged in research activities and biology majors are encouraged to participate. Our department has animal quarters, greenhouses, an aquatic field station on the Tennessee River, two field stations in the Tennessee River Gorge, a 200-acre forested research property that includes a wetland and classroom, and three aquatic research vessels.

We are affiliated with the Gulf Coast Research Laboratory in Mississippi and Highlands Biological Station in North Carolina.

Other resources include our longstanding relationships with local institutions including the Tennessee Aquarium, Tennessee Valley Authority, North Chickamauga Creek Conservancy and the Tennessee River Gorge Trust, to name a few.

Students pursuing a BS in Environmental Science choose a concentration from these options:

- Biodiversity
- Conservation and Natural Resources
- Earth, Atmosphere and Geological Resources
- Engineering Science
- Environmental Health
- Environmental Policy and Planning
- Geographic and Cartographic Sciences

utc.edu/environmental-science

OPPORTUNITIES FOR ENVIRONMENTAL SCIENCE STUDENTS

Experiential Learning

UTC emphasizes opportunities for meaningful learning experiences inside and outside of the classroom. From conducting original research to internships and community outreach initiatives, environmental science students take advantage of resources on campus and in Chattanooga.

Research

Our department offers research opportunities in the following areas. Visit our website to learn more about specific research opportunities.

- Conservation and Restoration
- Ecology, Evolution and Behavior
- Environmental and Human Health
- Geology
- Geospatial Sciences
- Microbiology
- Molecular Biology, Cell and Physiology
- Systematics and Biodiversity

Internships

In recent years, our department has placed students in internships with a variety of locations and opportunities, including:

- Erlanger Health System
- Crabtree Farms
- Chattanooga Zoo
- Tennessee Valley Authority
- Reflection Riding Arboretum and Nature Center
- City of Chattanooga
- Tennessee Aquarium
- Tennessee Department of Environment and Conservation

SCHOLARSHIP OPPORTUNITY FOR ENVIRONMENTAL SCIENCE STUDENTS

The Tucker Foundation Endowed Honors College Scholarship in Biology and Environmental Science: Awarded to an undergraduate student involved in research on Stream Fish Ecology and Conservation and American Chestnut Restoration and Mycology.

CAREER POSSIBILITIES FOR ENVIRONMENTAL SCIENCE STUDENTS

Are you starting college with a specific career in mind?
Environmental science graduates excel in these fields and more.

Visit University Career Services at utc.edu/career-student-employment for a detailed list of career possibilities.

INDUSTRY/BUSINESS

- Environmental Consultant
- Project Manager
- Remote Sensing and Imagery Analysis
- Wetland Delineation Specialist
- Environmental Planner
- Soil Scientist
- Wetland Permitting Specialist
- Field Technician
- GIS Technician
- Environmental Audit Specialist
- Lab Technician
- Hazardous Waste Technician
- Environmental Compliance Manager
- Environmental Planner
- Environmental Remediation Technician
- Regulatory Compliance Specialist
- Map Specialist
- Communications Officer
- Social/Economic Environmental Scientist
- Public Relations Specialist
- Endangered Species Relocation Scientist
- Forest Ranger
- Biologist, Toxicologist, Public Health
- Endangered Species Specialist
- Park Ranger
- Remote Sensing/Imagery Analysis Specialist
- Hazardous Waste Technician
- Fish and Wildlife Officer
- Stormwater Management Specialist
- GIS Technician
- Environmental Planner
- Air Pollution Permitting Specialist
- Wetland Permitting Specialist
- Regional Planner
- Water Pollution Permitting Specialist
- Wetland Delineation Specialist
- Environmental Scientist
- Environmental Remediation Technician
- Regulatory Specialist

**SUCCESS TRACK: ENVIRONMENTAL SCIENCE
DEGREE: BS IN ENVIRONMENTAL SCIENCE**

	YEAR 1	YEAR 2	YEAR 3	YEAR 4	PROF. DEVELOP.
EXPLORATION	Explore your interests and identify your strengths with resources available through University Career Services. If you have a career path in mind, research that career to determine the courses and skills necessary.	Match your interests with future careers online through My Next Move Interest Profiler, O*NET and UTC Univeristy Career Services. Research options for careers and potential graduation programs.	Seek internship and job shadowing opportunities. Contact graduate school prospects and employers. Build relationships with faculty who can provide reference letters and information about your field.	Identify and refine marketable skills. Now is the time to pinpoint career goals. Focus on applying for graduate programs, professional programs or jobs.	American Society for Microbiology asm.org
ACADEMIC MILESTONES	Complete ESC 1500/L and ESC 1510/L; ENGL 1010 and 1020; math requirement; natural science sequence, and other concentration courses.	Complete BIOL 1110 and 1120; BIOL 3060 and 3070; ENGL 2820; and GEOG 2210. Each concentration will have other courses that should be a priority-pinchpoint these with your advisor.	Complete appropriate ESC Methods course: ESC 3400, 3600 or 4520, General Education, Environmental Science and concentration, Senior Experience (recommended during the summer between 3 and 4).	Complete ESC 4100 and 4840; requirements for General Education and major. Explore areas of interest in other disciplines or strengthen your skills with an elective course in your major.	The American Institute of Biological Sciences aibs.org
CONNECTIONS	Join a club in your major. Introduce yourself to environmental science faculty, discuss professional plans and ask for advice.	Get involved with campus and community organizations. Quality is always better than qauntity. Explore departmental research opportunities and apply for research awards.	Internships, job shadowing and volunteering are great opportunities to build connections. Foster relationships with faculty and staff in the department and meet with University Career Services.	Volunteer and strengthen relationships with faculty and staff. Join professional groups and attend professional meetings. Consider presenting your research.	Association of Zoos and Aquariums aza.org
READINESS	Pay close attention to your grades in biology, chemistry and math. These courses are vital. Visit University Career Services for career exploration and for access to part-time employment.	Identify your strengths and weaknesses. Work to cultivate and improve skills vital to your desired career path. Develop universal skills: communication, time management, interpersonal, leadership, critical thinking and problem-solving.	Participate in University Career Services MOC interview programs. Develop communication skills and professional statements. Cultivate relationships with faculty-they're vital resources.	Contact organizations and associations for informational interviews, potential mentors, and shadowing opportunities. Engage with University Career Services for resources and opportunities.	National Association of Environmental Professionals naep.org
ACHIEVEMENT	Complete 30 credit hours. Meet with your environmental science advisor twice. Declare a major. Have your second year mapped out and a general plan for years 3 and 4.	Complete 60 credit hours. Meet with your advisor at least three times. Have your third year mapped out and a general plan for year 4.	Complete 90 credit hours and complete admissions exams. Check-in with graduation goals and meet with your advisor. Begin preparing for employment/graduate programs.	Complete 120 credit hours, all degree requirements and graduate. Share your post-graduation successes with the department and Unversity Career Services. Join the Alumni Association.	Association of Environmental Studies and Sciences aessonline.org

BIOLOGY STEM EDUCATION utc.edu/stem-education

Participation in the STEM Education program gives students valuable hands-on teaching experience, a four-year degree in their respective field and completion of requirements necessary to earn a teaching license. Biology majors who choose the STEM Education concentration should successfully meet these milestones as they navigate the biology curriculum.

FIRST YEAR

- STEM 1030 and STEM Checkpoint 1.
- Meet with STEM advisor in addition to meeting with your academic advisor.

SECOND YEAR

- STEM 2010, 2020 and STEM Checkpoint 2.
- Meet with STEM advisor in addition to meeting with your academic advisor.

THIRD YEAR

- STEM 3010, 3020 and STEM Checkpoint 3.
- Apply for Apprentice Teaching.
- Prepare to take the Praxis.
- Meet with STEM advisor in addition to meeting with your academic advisor.

FOURTH YEAR

- STEM 4010, 4020 (Apprentice Teaching) and STEM Checkpoint 4.
- Meet with STEM advisor in addition to meeting with your academic advisor.