FITCHBURG STATE UNIVERSITY

ENVIRONMENTAL AND EARTH SCIENCE

Students utilize scientific methods and hypothesis testing as a way of understanding the natural world. Environmental and Earth Sciences encompasses several fields of study such as geology, oceanography, meteorology, climatology, hydrogeology, and planetary science. Through studying the interaction between humans and various components of the Earth's systems, students explore environmental issues on global, regional, and local scales. Hands-on experiences in the laboratory and the field bring together theory and application, contribute to scholarly development, and prepare students for a range of careers.

HOW TO USE THE ACTION PLAN

Use the Action Plan timeline to explore potential career paths and plan for success during and after your college experience. The Action Plan provides suggestions and a place to start the conversation with your advisor, but every person and every career journey is unique. Customize your own personal action plan using the **My Environmental and Earth Sciences Action Plan** tool (next page).

Maximize the time you have in college to prepare for your future. What do you want to do after you graduate with an Environmental and Earth Sciences degree?

The Action Plan helps you to come up with tentative goals (it's ok if these change as you continue to learn more about yourself and the field!) so you can start working on short-term steps to help you reach those goals or shift directions. Remember, you do not have to do this all on your own, get the support you need from your department and from Student Support Services like **Career Services and Advising (CSA).**

ALUMNI CAREER FIELDS

- **21%** Education
- **8%** Community Organizations/ Non-profit
- **12%** Research
- **47%** Business, operations, sales

PAST RESEARCH AND INTERNSHIP EXPERIENCES

- Mars satellite image analysis: Research Assistant
- Road salt application impacts on N. Nashua River: Research Assistant
- Heavy metals in sediments behind dams in N. Nashua River: Research Assistant
- Microplastics in the Nashua River Watershed: Research Assistant

WHY CONSIDER AN INTERNSHIP?

- Use field and lab skills in applied scientific work
- Discover areas of interest
- Build your professional network

ALUMNI STORY
PAIGE HARRINGTON '18

Environmental Health and Safety Coordinator for Saint-Gobain Adfors in Albion NY

My time at FSU helped prepare me for post-college, but being in the earth and environmental major truly shaped my future. Being in a "smaller" major allowed for closer relationships with professors, constructive conversations, and created unique connections throughout the entire university. The professors encouraged exploration and in depth learning and gave me the tools necessary to succeed. I wouldn't be where I am today if I didn't have the incredible guidance and support from this department. This major allowed me to navigate various aspects of environmental science which laid the foundation for my career.

CORE COMPETENCIES

Knowledge of the Environment:
Demonstrate knowledge of water, rock, soil, and air, and interactions among them. Describe the interactions between humans and their environment.

Thinking Critically about Environmental Problems:
Learn about the natural and physical world through collecting, analyzing and interpreting data. Develop critical thinking and problem solving skills by conducting investigations of the environment (water, air, rock, soil) outside and analyze samples in the lab. Use math to solve environmental problems.

Field and Technology Skills:
Use of GPS, remote sensing, and field observations/ data collection to address environmental and geologic problems. Use geospatial software, such as Geographic Information System (GIS) and new technologies, such as drones, to acquire, manage, display, and analyze spatial data and satellite images.

Information and Digital Literacy:
Recognize what scientific information is needed and have the ability to locate, evaluate, and use that information effectively and ethically.

Communication:
Effectively communicate geoscience information through written, oral, cartographic, and graphical expression, and use scientific evidence to support ideas.

Teamwork / Collaboration:
Interact effectively in a group to solve geoscience problems and work productively with a diverse group of peers.

FITCHBURG STATE UNIVERSITY

ENVIRONMENTAL AND EARTH SCIENCE ACTION PLAN

Take a look at the suggested activities in the Action Plan below. You do not need to complete all these tasks, but it is a place to start generating ideas. Think about what you would like to work on now in order to feel well prepared to enter your career field or graduate school upon graduation. Use the blank My Action Plan tool with your advisor to come up with the action items that are priorities for you, revisit and revise this action plan each semester.

	FIRST YEAR	SOPHOMORE YEAR	JUNIOR YEAR	FINAL YEAR
ACHIEVE ACADEMIC MILESTONES	Make a math plan! Check with your advisor regarding retaking the placement exam if necessary or completing Algebraic Preparation (Math 0500) if needed. Complete Precalculus or Calculus I, and plan to take Applied Statistics.	Review your major, either continuing with no changes, changing your major to Geographic Science and Technology or Environmental Public Health or, if desirable, switching majors and continuing with an Environmental and Earth Science minor. Choose Gen Ed courses that allow you to be challenged andexplore interests, including either a language or speech course to strengthen your oral communication.	Consider adding a minor in GIS, GST, EPH, or other field of interest. Plan your EES electives so you can take classes that interest you and are in-line with your graduate study / career goals. Consider internships or independent studies with faculty members as an option	Ready to Graduate? Make sure you have 120 credits toward your degree and have met the Gen Ed and major requirements. Double-check with your advisor and apply for graduation!
BUILD EXPERIENCE	Consider joining or starting a student organization relating to Environmental Science. Follow the EGS Facebook page @ Facebook. com/FSU.EGS	Seek out campus opportunities for work including peer tutoring, peer mentoring, and departmental work-study. Talk to your professors/advisor about research opportunities with faculty and apply to opportunities for research, summer jobs or internships. Talk with your advisor about opportunities to study abroad.	Attend events with employers on campus/ career fairs/opportunities to network within your department. In January-February search and apply to internships in your career field (see usajobs. gov & Dept. Blackboard site) or volunteer opportunities with municipal or state govt., or environmental non-profits. Seek out leadership positions in campus clubs/activities.	Develop a list of potential employers and check for recruitment events/open positions throughout the year. Apply to jobs starting in December. Keep track of and follow up with job applications.
PREPARE FOR LIFE AFTER GRADUATION	Activate your Handshake account. Take a career strength/skills assessment. Familiarize yourself with Career Services and Advising (CSA) workshops and services. Create a resume and have it approved by an advisor in the CSA Center.	Consider participating in alumni job shadowing or informational interviews with professionals in potential career fields. Create LinkedIn account/other accounts on industry specific platforms (i.e. schoolspring).	Attend events with employers and on campus, career fairs. Attend a CSA workshop or one-on-one meeting to go over cover letters and interview prep. Consider graduate or professional schools and decide if it's right for you and your career path.	If applicable, take graduate school entrance exams and complete applications. Practice skills by doing at least 2 mock interviews and getting feedback. Speak to your advisor and other faculty members about letters of recommendation.

Note for Transfer Students: This plan is not rigid and you may be at different points in each section than your class year. This plan is just a starting point to discuss with your advisor and customize for the experiences you want to have before completing your degree.