

What can I do with a degree in...

# ENVIRONMENTAL SCIENCE?

## What is ENVIRONMENTAL SCIENCE?

WCU's Environmental Science program gives you the opportunity to develop expertise in evaluating human effects on the environment and in promoting and implementing sustainable practices. Environmental problems do not come neatly packaged according to academic discipline. Solving them requires thinking across those categories, integrating perspectives from science and society. Equipping our students to work on these complex environmental problems requires an interdisciplinary curriculum, full of hands-on experiences. And that is just what we deliver.

### The WCU Experience

The degree includes foundation courses and four focused environmental science classes just for majors. Hands-on and service learning, authentic experiences, data analysis, and scientific communication skills are used to evaluate human effects on the environment. In a junior level course, students learn to critically evaluate what "sustainability" means and gain skills in how to devise sustainable solutions to some of our most pressing environmental problems. In the senior capstone, students apply their skills to real-world regional environmental problems.

### Diving Deep- the second major

Flexibility and customization is a hallmark of WCU's interdisciplinary B.S. in Environmental Science. Environmental Science students benefit from a required second major to add depth and experience in preparation for their intended environmental career path. Common second majors include Natural Resources and Conservation Management, Geology (Hydrology), Biology, Chemistry, Environmental Health, and Political Science, among others.



## What are the DEGREE OPTIONS?

**Bachelor of Science (B.S.) in Environmental Science and a second major**

## What is the ADMISSION PROCESS?

Students declare a major in Environmental Science with the Advising Center, located in Killian Annex. Please make an appointment with your advisor via your MyWCU.

## What JOBS ARE AVAILABLE?

Depending on the second major and other qualifications, our graduates are prepared to become a variety of professionals including educators, sus-

tainability planning, environmental regulation and compliance, environmental consulting, "green program" management, environmental conservation, communications, energy auditor/planners, and environmental law and policy. **NOTE:** Advanced degrees may be required for some of the listed professions. Please see a career counselor or an Environmental Science advisor for more information.

## Who employs ENVIRONMENTAL SCIENCE graduates?

We prepare our graduates for jobs in local, state and federal agencies, environmental consulting firms, conservation and energy organizations, watershed associations, and private industry. Some of our graduates go on to earn advanced degrees in science, education, technology or law.

# MAJOR MAP

**How to use this map:** Review the four categories and suggestions of activities and when you should consider engaging in them. Remember, these are just suggestions! There is a fillable space for you to add in any other ideas you have to set yourself up for success in life after college.

## 1st YEAR

## 2nd YEAR

### EXCEL IN ACADEMICS

First-year students in the Environmental Science major should balance liberal studies requirements with progress on their core and foundations. Try to take the introductory course for a potential second major: many are part of the ES degree. Generally avoid more than two lab courses in one semester. [Check out the 8-semester plan](#) and make an appointment with your advisor.

Students in their second year should continue with their foundations and liberal studies requirements. Second majors should be selected with progress toward its requirements. [Check out the 8-semester plan](#) and make an appointment with your advisor.

### GET HANDS-ON EXPERIENCE

Check out [WCU's DegreePlus program](#) and choose which events in any of the four categories you want to attend. Categories include: Professionalism, Teamwork, Leadership, or Cultural Responsiveness.

See what on-campus employment opportunities are available by logging in to JobCat via your MyWCU.

Get involved with the E.C.O. Cats or the Sustainable Energy Initiative student committee at WCU.

If you are thinking about attending a graduate school, start engaging in hands-on experiences required in graduate school admissions.

Engage deeper with [DegreePlus](#); choose an additional competency to complete

### BE PART OF THE COMMUNITY

Connect with the [Center for Community Engagement and Service Learning](#) and ask about the [Spark Award](#), a program aimed to encourage students to be connected with their community.

Job shadow with professionals in the career area you wish to pursue.

Volunteer with area non-profits or organizations, such as Mountain True, Friends of Panthertown, or the Mainspring Conservation Trust.

Consider the [study abroad programs related to environmental science](#). Talk with a study abroad advisor about targeted experience for your concentration.

### PREPARE FOR LIFE AFTER COLLEGE

Further explore your career options or career interests using the [Center for Career and Professional Development's](#) online resources, [Focus 2](#), and [Onet Online](#).

Connect with a career counselor early on to explore opportunities and experiences you can do while in college to further develop your professional resume.

Check out [CCPD's list of career-building activities](#) and participate in an activity this year, such as attending Career Fair Plus.

Start a spreadsheet of graduate schools you wish to apply to in a few years with their admission requirements so that you are aware of the expectations.

## Selecting a second major? Consider these options:

Biology  
Chemistry  
Geology (Hydrology)

Environmental Health  
Science Education  
Natural Resource Conservation

Philosophy  
Political Science

### 3rd YEAR

Third year students should choose their upper-level courses with desired skills and career goals in mind. In ES 370, students will critically examine sustainability, which is important for the capstone. **Check out the [8-semester plan](#)** and make an appointment with your advisor.

Consider internship experiences that will give you practical and hands-on experience to put on a resume.

Consider networking with professionals in your field at national or regional professional conferences such as the **[Association for the Advancement of Sustainability in Higher Education](#)**, **[Association for Environmental Studies and Sciences](#)**, or **[North American Association for Environmental Education annual conference](#)**. Submit your research to NCUR, and ask your professors about regional conferences.

Develop deeper relationships with the organizations for which you volunteer. Ask for special projects or responsibilities that you can highlight on a resume.

Connect with alumni in your field through **[LinkedIn](#)** LinkedIn Group: <http://www.linkedin.com/groups/843565>

Visit the CCPD to hone your professional resume and cover letter. Apply for internships. Utilize the **[Writing and Learning Commons](#)** for MCAT, GRE, and other professional exam preparation sessions. Use **[Big Interview](#)** to learn more about professional interviews.

Schedule a visit to tour medical/ graduate schools of your choice, if applicable.

### 4th YEAR

Take the capstone, ES 495, in your final fall semester. Be sure to **[check out the 8-semester plan](#)** and meet with your advisor to make sure all your program electives are showing on degree audit. **[Apply for graduation!](#)**

Investigate requirements for full-time jobs. Assess what skills or experiences you're lacking and invest time in seeking additional opportunities such as certification programs, classes, or professional development workshops during your last year to fill that gap. Connect with your faculty advisor or career counselor.

Join professional Environmental Science organizations appropriate to your career goals.

Network with employers and non-profits at the annual Career Fair Plus event, held each October and February.

Apply to graduate schools, if applicable.

Look for and **[apply for jobs](#)** between 4 and 6 months before graduation.

Polish your resume, cover letter, and interview skills by using the **[CCPD](#)**.

Internships are still the number-one educational experience employers look for in a recent college graduate resume. (Chronicle of Higher Education's study on 59,000 employers)

**DID YOU KNOW?**

# MORE INFORMATION

## **INTERNSHIP** Information

At Western Carolina University there are numerous internship opportunities for students. In some cases internships are established through a faculty member in the student's major. Oftentimes students find part-time jobs in an area related to their field of study. When this happens, students should discuss with their academic advisor the possibility of receiving college credit. Generally, three hours of general elective credit can be earned for a minimum of 200 hours of experience.

## **SKILLS LEARNED** in the classroom

The core competencies will center on developing skills, knowledge, and attitudes such as:

- geospatial analysis
- field science methods
- laboratory instrumentation
- water and air analysis
- statistical data interpretation
- written and oral communication
- professional teamwork
- complex problem solving
- addressing policy and social values

## **KNOWLEDGE** Base

This program will prepare students to:

- apply insights and skills from a diversity of natural sciences, including chemistry, biology, geology and geospatial analysis.
- understand and analyze the interactions and dependencies between built and natural systems.
- integrate data from a variety of disciplinary contexts and communicate its significance for creating solutions to environmental problems.

## Professional **RESOURCES**

- Association for the Advancement of Sustainability in Higher Education: [aashe.org](http://aashe.org)
- Association for Environmental Studies and Science: [aessonline.org](http://aessonline.org)
- Environmental Protection Agency: [www.epa.gov](http://www.epa.gov)
- North American Association for Environmental Education: [naaee.org](http://naaee.org)
- River Management Society: [river-management.org](http://river-management.org)
- Student Conservation Association: [www.thesca.org](http://www.thesca.org)
- Wildlife Society: [wildlife.org](http://wildlife.org)

## **QUESTIONS?**

For questions, please call the Environmental Science program at 828-227-2939 or visit [environmentalscience.wcu.edu](http://environmentalscience.wcu.edu).

To schedule an appointment with a career counselor, contact the Center for Career and Professional Development, 828-227-7133 or [careerservices@wcu.edu](mailto:careerservices@wcu.edu).