

# ENVIRONMENTAL SCIENCE ENVIRONMENTAL SCIENCE EMPHASIS

## REQUIREMENTS

**CORE CURRICULUM** The Core Curriculum is designed to foster critical thinking skills and introduce students to basic domains of thinking that transcend disciplines. The Core applies to all majors. Information on specific classes in the Core can be found at [marshall.edu/gened](http://marshall.edu/gened).

### CORE 1: CRITICAL THINKING

| CODE                                      | COURSE NAME                    | HRS | GRADE |
|---|--------------------------------|-----|-------|
| FYS 100                                   | First Year Seminar             | 3   | _____ |
| NRE 120                                   | Critical Thinking Course       | 3   | _____ |
| NRE 220                                   | Critical Thinking Course       | 3   | _____ |
| <b>Additional University Requirements</b> |                                |     |       |
| _____                                     | Writing Intensive              | 3   | _____ |
| _____                                     | Writing Intensive              | 3   | _____ |
| _____                                     | Multicultural or International | 3   | _____ |
| NRE 491                                   | Capstone                       | 3   | _____ |

### CORE 2:

| CODE      | COURSE NAME                  | HRS | GRADE |
|-----------|------------------------------|-----|-------|
| ENG 101   | Beginning Composition        | 3   | _____ |
| ENG 201   | Advanced Composition         | 3   | _____ |
| CMM 103   | Fund Speech-Communication    | 3   | _____ |
| MTH140    | Applied Calculus             | 3   | _____ |
| _____     | Core II Humanities           | 3   | _____ |
| _____     | Core II Social Science       | 3   | _____ |
| _____     | Core II Fine Arts            | 3   | _____ |
| BSC 120/L | Core II Physical/Nat Science | 4   | _____ |

### MAJOR-SPECIFIC

All Environmental Sciences majors are required to take the following courses:

| CODE    | COURSE NAME                        | HRS | GRADE | CODE     | COURSE NAME                         | HRS | GRADE |
|---------|------------------------------------|-----|-------|----------|-------------------------------------|-----|-------|
| CIT 150 | Spreadsheets & Database Prin       | 3   | _____ | NRE 425  | Water Policy and Regulations        | 3   | _____ |
| MTH 140 | Applied Calculus                   | 3   | _____ | NRRM 200 | Analytical Methods: Statistics      | 4   | _____ |
| NRE 120 | Discussion in Environ Science (CT) | 3   | _____ | NRE 323  | Assessment II: Aquatic Ecology      | 4   | _____ |
| NRE 220 | Human Dimensions of Nat Res (CT)   | 3   | _____ | NRE 423  | GIS and Data Systems                | 3   | _____ |
| CHM 211 | Principles of Chemistry I          | 3   | _____ | NRE 470  | Internship or Senior Project or 491 | 3   | _____ |
| CHM 217 | Principles of Chemistry 1 Lab      | 2   | _____ | NRE 490  | ES/NRRM Capstone Prep               | 3   | _____ |
| CHM 212 | Principles of Chemistry II         | 3   | _____ |          |                                     |     |       |
| CHM 218 | Principles of Chemistry II Lab     | 2   | _____ |          |                                     |     |       |

### AREA OF EMPAHSIS-SPECIFIC

Students who wish to add an area of empahsis in Environmental Science must take the following courses:

| CODE      | COURSE NAME                    | HRS | GRADE | CODE     | COURSE NAME         | HRS | GRADE |
|-----------|--------------------------------|-----|-------|----------|---------------------|-----|-------|
| BSC 120/L | Principles of Biology I / Lab  | 4   | _____ | GLY 200  | The Dynamic Earth   | 3   | _____ |
| BSC 121/L | Principles of Biology II / Lab | 4   | _____ | GLY 210L | Earth Materials Lab | 1   | _____ |
| PHY 201   | College Physics I              | 3   | _____ | _____    | Major Elective      | 4   | _____ |
| PHY 202   | College Physics I Lab          | 1   | _____ | _____    | Major Elective      | 3   | _____ |
| PHY 203   | College Physics II             | 3   | _____ | _____    | Major Elective      | 3   | _____ |
| PHY 204   | College Physics II Lab         | 1   | _____ | _____    | Major Elective      | 3   | _____ |
| BSC 320   | Principles of Ecology          | 4   | _____ | _____    | Major Elective      | 3   | _____ |
| NRE 212   | Energy                         | 3   | _____ | _____    | Free Elective       | 3   | _____ |
| NRE 322   | Assess I: Terrestrial Systems  | 4   | _____ | _____    | Free Elective       | 3   | _____ |

### MAJOR INFORMATION

- In addition to the Core General Education requirements, the College of Science requires 3 hours of Calculus, 8 additional hours of Natural or Physical Science, and 40 hours of upper level credit.
- Coursework listed as "elective" may vary for each student. Students are encouraged to use elective hours toward a minor or toward prerequisites.
- Students are strongly encouraged to select courses that meet two or more Core or College requirements. For example, a writing intensive literature course could satisfy the Core II Humanities requirement as well as the University writing intensive requirement.
- Course offerings and course attributes are subject to change semesters. Please consult each semesters schedule of courses for availability and attributes.
- Math is based on an ACT Mathematics score of 24 or higher. Students with an ACT Mathematics score less than 24 will be placed in the appropriate mathematics and science courses.
- Electives: In consultation with the COS advisors, students will select electives from the College of Science offerings best suited to prepare students to apply for professional credentials as a certified ecologist, certified wildlife biologist, or certified fisheries professional. Once a student has satisfied all of the requirements for one of these certifications, he or she should select additional electives in consultation with NRE/COS advisers to reach 120 credit hours required for graduation. Additional electives may be used to satisfy general education requirements (e.g., writing intensive) and/or to fulfill the requirements of a second major, minor, or certificate.

Milestone Course: This is a key success marker for your major. See your advisor to discuss importance of this course in your plan of study.

# ENVIRONMENTAL SCIENCE ENVIRONMENTAL SCIENCE EMPHASIS

The Bachelor of Science in Environmental Science degree is an integrated program requiring math, communication, and environmental studies courses and basic science courses from Geology, Biology, Chemistry, and Physics departments. The integrated coverage of broad topics prepare students for the complex problems facing a modern world. Areas of Emphasis help focus student efforts toward individual goals and interests with consideration to obtaining rewarding careers the fields of environmental science or conservation or pursuing advanced studies.

| YEAR ONE | FALL SEMESTER           |                                     |           |       | SPRING SEMESTER    |                                  |           |       |
|----------|-------------------------|-------------------------------------|-----------|-------|--------------------|----------------------------------|-----------|-------|
|          | CODE                    | COURSE NAME                         | HRS       | GRADE | CODE               | COURSE NAME                      | HRS       | GRADE |
|          | CIT 150                 | Spreadsheets & Database Prin        | 3         | _____ | ENG 201            | Advanced Composition             | 3         | _____ |
|          | NRE 120                 | Discussions in Environ Science (CT) | 3         | _____ | BSC 120/L          | Principles of Biology I / Lab    | 4         | _____ |
|          | MTH 140                 | Applied Calculus                    | 3         | _____ | GLY 200            | The Dynamic Earth                | 3         | _____ |
|          | ENG 101                 | Beginning Composition               | 3         | _____ | GLY 210L           | Earth Materials Lab              | 1         | _____ |
|          | FYS 100                 | First Year Sem Crit Thinking        | 3         | _____ | NRE 220            | Human Dimensions of Nat Res (CT) | 3         | _____ |
|          | UNI 100                 | Freshman First Class                | 1         | _____ |                    |                                  |           |       |
|          | <b>TOTAL HOURS</b>      |                                     | <b>16</b> |       | <b>TOTAL HOURS</b> |                                  | <b>14</b> |       |
|          | Summer Term (optional): |                                     |           |       |                    |                                  |           |       |

| YEAR TWO | FALL SEMESTER           |                               |           |       | SPRING SEMESTER    |                                |           |       |
|----------|-------------------------|-------------------------------|-----------|-------|--------------------|--------------------------------|-----------|-------|
|          | CODE                    | COURSE NAME                   | HRS       | GRADE | CODE               | COURSE NAME                    | HRS       | GRADE |
|          | CHM 211                 | Principles of Chemistry I     | 3         | _____ | BSC 121/L          | Principles of Biology II / Lab | 4         | _____ |
|          | CHM 217                 | Principles of Chemistry I Lab | 2         | _____ | CHM 212            | Principles of Chemistry II     | 3         | _____ |
|          | NRE 212                 | Energy                        | 3         | _____ | CHM 218            | Principles of Chemistry II Lab | 2         | _____ |
|          | _____                   | Core II Fine Arts             | 3         | _____ | NRRM 200           | Analytical Methods: Statistics | 4         | _____ |
|          | _____                   | Core II Social Science (MC/I) | 3         | _____ | _____              | Core II Humanities (WI)        | 3         | _____ |
|          | <b>TOTAL HOURS</b>      |                               | <b>14</b> |       | <b>TOTAL HOURS</b> |                                | <b>16</b> |       |
|          | Summer Term (optional): |                               |           |       |                    |                                |           |       |

| YEAR THREE | FALL SEMESTER           |                                |           |       | SPRING SEMESTER    |                               |           |       |
|------------|-------------------------|--------------------------------|-----------|-------|--------------------|-------------------------------|-----------|-------|
|            | CODE                    | COURSE NAME                    | HRS       | GRADE | CODE               | COURSE NAME                   | HRS       | GRADE |
|            | NRE 323                 | Assessment II: Aquatic Ecology | 4         | _____ | NRE 490            | ES/NRRM Capstone Prep         | 3         | _____ |
|            | NRE 423                 | GIS and Data Systems           | 3         | _____ | NRE 322            | Assess I: Terrestrial Systems | 4         | _____ |
|            | PHY 201                 | College Physics I              | 3         | _____ | PHY 203            | College Physics II            | 3         | _____ |
|            | PHY 202                 | College Physics I Lab          | 1         | _____ | PHY 204            | College Physics II Lab        | 1         | _____ |
|            | _____                   | Free Elective                  | 3         | _____ | CMM 103            | Fund Speech-Communications    | 3         | _____ |
|            |                         |                                |           |       | _____              | Writing Intensive             | 3         | _____ |
|            | <b>TOTAL HOURS</b>      |                                | <b>14</b> |       | <b>TOTAL HOURS</b> |                               | <b>17</b> |       |
|            | Summer Term (optional): |                                |           |       |                    |                               |           |       |

| YEAR FOUR | FALL SEMESTER           |                              |           |       | SPRING SEMESTER    |                                     |           |       |
|-----------|-------------------------|------------------------------|-----------|-------|--------------------|-------------------------------------|-----------|-------|
|           | CODE                    | COURSE NAME                  | HRS       | GRADE | CODE               | COURSE NAME                         | HRS       | GRADE |
|           | NRE 425                 | Water Policy and Regulations | 3         | _____ | NRE 470            | Internship or Senior Project or 491 | 3         | _____ |
|           | BSC 320                 | Principles of Ecology        | 4         | _____ | _____              | Major Elective                      | 3         | _____ |
|           | _____                   | Major Elective               | 3         | _____ | _____              | Major Elective                      | 3         | _____ |
|           | _____                   | Major Elective               | 3         | _____ | _____              | Free Elective                       | 3         | _____ |
|           | _____                   | Major Elective               | 4         | _____ |                    |                                     |           |       |
|           | <b>TOTAL HOURS</b>      |                              | <b>17</b> |       | <b>TOTAL HOURS</b> |                                     | <b>12</b> |       |
|           | Summer Term (optional): |                              |           |       |                    |                                     |           |       |

Milestone Course: This is a key success marker for your major. See your advisor to discuss importance of this course in your plan of study.

● General Education Requirement ● College Requirement ◆ Major Requirement ◆ Area of Empahsis

## INVOLVEMENT OPPORTUNITIES

- Student Government Association
- Campus Activity Board
- JMELI
- Commuter Student Advisory Board
- Club Sports
- Religious Organizations
- Political Organizations
- Residence Hall Association
- Cultural Organizations
- National Society of Leadership and Success
- Greek Life

## RELATED MAJORS

- Biomechanics
- Athletic Training
- Education
- Geology
- Geography
- Environmental Science

## GRADUATION REQUIREMENTS

- Have a minimum of 120 credit hours (some colleges or majors require more);
- Have an overall and Marshall Grade Point Average of 2.00 or higher;
- Have an overall Grade Point Average of 2.00 or higher in the major area of study;
- Have earned a grade of C or better in English 201 or 201 H;
- Have met all major(s) and college requirements;
- Have met the requirements of the Core Curriculum;
- Have met the residence requirements of Marshall University, including 12 hours of 300/400 level coursework in the student's college (see section entitled "Residence Requirements" in the undergraduate catalogue);
- Be enrolled at Marshall at least one semester of the senior year;
- Have transferred no more than 72 credit hours from an accredited West Virginia two-year institution of higher education.

Colleges and specific programs may have unique requirements that are more stringent than those noted above. Students are responsible for staying informed about and ensuring that they meet the requirements for graduation.

This academic map is to be used as a guide in planning your coursework toward a degree. Due to the complexities of degree programs, it is unfortunate but inevitable that an error may occur in the creation of this document. The official source of degree requirements at Marshall University is DegreeWorks available in your myMU portal. Always consult regularly with your advisor.

# ENVIRONMENTAL SCIENCE – 2024-2025

## YEAR ONE



Have questions? Need to talk? You already have a Friend-At-Marshall ready to help you succeed. Find your FAM Peer Mentor here: [www.marshall.edu/fam](http://www.marshall.edu/fam)



Stay on the Herd Path and come to class! Class attendance is more important to your success than your high school GPA, your class standing, or your ACT/SAT scores.



In order to graduate on time, you need to take an average of 15 credits per semester. Are you on track? Take 15 to Finish!



No need to wait until graduate school. Discuss undergraduate research opportunities with faculty in your major right now.



Take a career self-assessment to help determine what jobs fit your talents and interests. We can get you there.



Join the Marshall Environmental Science Association, SCUBA Club, or other organization.



Take a pulse check. Know what you need to do every year to keep your grants, scholarships, or federal financial aid.

## YEAR THREE



Join professional associations in your field, like: American Fisheries Society, Ecological Society of America, Association of Southeastern Biologists.



Run for Student Government and represent your fellow students while making a long-term difference on Marshall's Campus.



Are you on track to graduate? Meet with your advisor for your Junior Eval to make sure you know what requirements you have left.



Think about who can help you grow as a student and a professional (professors, advisors, alumni, etc.) and ask at least one to be your mentor.



Don't enter your field with zero experience! Meet with your advisor to discuss your internship options.



Strengthen your resume and enhance your presentation skills. Present what you've learned at an academic conference off campus.



Conservation and sustainability outreach is available. Join up!

## YEAR TWO



Are you completing enough credits to graduate on time? Dropping or failing a class can put you behind. Use summer terms to quickly get back on track.



Attend civic meetings, such as the school board, neighborhood associations, city council, or important state legislative sessions.



Have you considered adding a minor or certification? Think about personal areas of interest that might give you a more marketable skill set.



Get involved! Strengthen your resume by gaining valuable field and laboratory experience.



Don't enter your field with zero experience! Secure an internship related to your field of study.



Run for Student Government and represent your fellow students while making a long-term difference on Marshall's Campus.



Join the Marshall Environmental Science Association, SCUBA Club, or other organization.

## YEAR FOUR



This is it! Are you on track to graduate? Meet with your advisor for your Senior Eval to see what requirements you have left.



Think about who can help you grow as a student and a professional (professors, advisors, alumni, etc.) and ask at least one to be your mentor.



Want to continue your education and increase your opportunities? Talk to a faculty member about whether graduate school fits your career goals.



Conservation and sustainability outreach is available. Join up!



Join professional associations in your field, like: American Fisheries Society, Ecological Society of America, Association of Southeastern Biologists.



Be at the top of your professional game! Prepare a final resume and practice your interview skills with a career coach in Career Education.

## TRANSFERABLE SKILLS ASSOCIATED WITH THIS MAJOR

- Scientific Ability
- Oral and Written Communication Skills
- Ability to Work as Part of a Team
- Technological Literacy
- Adaptability

## ASSOCIATED CAREERS

- Quality Assurance/Control
- Product Development
- Process Development
- Analysis
- Environmental Analysis
- Chemical Engineer
- Marketing
- Land Use Manager
- Water/Wetlands Manager
- Conservationist



Marshall University  
College of Science  
1 John Marshall Drive  
Huntington, WV 25755  
1-304-696-3170  
[cos@marshall.edu](mailto:cos@marshall.edu)  
[marshall.edu/cos](http://marshall.edu/cos)