

# ENVIRONMENTAL SCIENCE APPLIED ENVIRONMENTAL

## 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 220	Critical Thinking Course	3	_____
NRE 120	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 or	Principles of Biology or Living	4	_____
NRE 111	Systems	3	_____

### 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	_____	CHM 218	Principles of Chemistry II Lab	2	_____
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	3	_____
CHM 217	Principles of Chemistry I Lab	2	_____	or 491			
CHM 212	Principles of Chemistry II	3	_____	NRE 490	ES/NRRM Capstone Prep	3	_____
				NRE 425	Water Policy and Regulations	3	_____

### AREA OF EMPHASIS-SPECIFIC

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

CODE	COURSE NAME	HRS	GRADE	CODE	COURSE NAME	HRS	GRADE
BSC 120/L or	Principles of Biology I / Lab or	4	_____	NRE 322	Assess I: Terrestrial Systems	4	_____
NRE 111	Living Systems	3	_____	_____	Major Elective	3	_____
NRE 212 or	Energy or College Physics	3-4	_____	_____	Major Elective	3	_____
PHY 201/202				_____	Major Elective	3	_____
GLY 200	The Dynamic Earth	3	_____	_____	Major Elective	3	_____
GLY 210L	Earth Materials Lab	1	_____	_____	Major Elective	3	_____
CIT 260	Intrumentation	3	_____	_____	Major Elective	3	_____
CIT 264	Technology Foundations	3	_____	_____	Free Elective	3	_____
NRE 320	Nature Enviro Problems	3	_____	_____	Free Elective	1	_____
NRE 321	Resol Environ Problems	3	_____				
NRE 435	Biomonitoring	4	_____				

### 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 2nd 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 each semester. Please consult each semester's 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 prerequisite 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 the 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 APPLIED ENVIRONMENTAL

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 prepares 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 in 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	_____	CMM 103	Fund Speech-Communications	3	_____
	NRE 120	Discussions in Environ Science (CT)	3	_____	BSC 120/L	Principles of Biology I / Lab or	4	_____
	MTH 140	Applied Calculus	3	_____	or NRE 111	Living Systems		
	ENG 101	Beginning Composition	3	_____	GLY 200	The Dynamic Earth	3	_____
	FYS 100	First Year Seminar	3	_____	GLY 210L	Earth Materials Lab	1	_____
	UNI 100	Freshman First Class	1	_____	NRE 220	Human Dimensions of Nat Res (CT)	3	_____
	<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	_____	NRE 212 or	Energy or College Physics	3-4	_____
	CHM 217	Principles of Chemistry I Lab	2	_____	PHY 201/202			
	ENG 201	Advanced Composition	3	_____	CHM 212	Principles of Chemistry II	3	_____
	_____	Core II Fine Arts	3	_____	CHM 218	Principles of Chemistry II Lab	2	_____
	_____	Core II Social Science (M/I)	3	_____	NRRM 200	Analytical Methods: Statistics	4	_____
	_____	Free Elective	1	_____	CIT 264	Technology Foundations	3	_____
	<b>TOTAL HOURS</b>		<b>15</b>		<b>TOTAL HOURS</b>		<b>15-16</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 322	Assess I: Terrestrial Systems	4	_____
	NRE 423	GIS and Data Systems	3	_____	NRE 321	Resol Environ Problems	3	_____
	CIT 260	Intrumentation	3	_____	NRE 490	ES/NRRM Capstone Prep	3	_____
	NRE 320	Nature Enviro Problems	3	_____	_____	Major Elective	3	_____
	_____	Humanities (WI)	3	_____	_____	Major Elective	3	_____
	<b>TOTAL HOURS</b>		<b>16</b>		<b>TOTAL HOURS</b>		<b>16</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	3	_____
	_____	Major Elective	3	_____	or 491			
	_____	Major Elective	3	_____	NRE 435	Biomonitoring	3	_____
	_____	Major Elective	3	_____	_____	Major Elective	3	_____
	_____	Writing Intensive	3	_____	_____	Free Elective	3	_____
	<b>TOTAL HOURS</b>		<b>15</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 Emphasis

# APPLIED ENVIRONMENTAL SCIENCE – 2023-2024

## 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

- Mechanical Engineering
- Civil Engineering
- Safety Technology
- Computer Science
- Chemistry
- Biology

## 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.

## 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!



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



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.



Take a Community Based Learning (CBL) class that connects course content to the community. Stay engaged and make a difference.

## 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.



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



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



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.



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



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



Volunteer on a research project for valuable experience.



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 Knowledge
- Organizational Skills
- Technological Literacy
- Adaptability
- Ability to Work as Part of a Team
- Attention to Detail

## ASSOCIATED CAREERS

- Land Use Manager
- Water/Wetlands Manager
- Fishery Manager
- Forestry and Wildlife Manager
- Conservationist



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