MY ADVISOR'S NAME IS:

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FOUR YEAR PLAN COLLEGE OF SCIENCE 2019-2020

ENVIRONMENTAL CHEMISTRY

Students completing the environmental chemistry major will be prepared for career opportunities in environmental chemistry, toxicology, environmental policy, and consulting. Additionally, Environmental Chemistry is an excellent choice for students desiring to pursue professional training in Law, or Safety, or Industrial Hygiene.

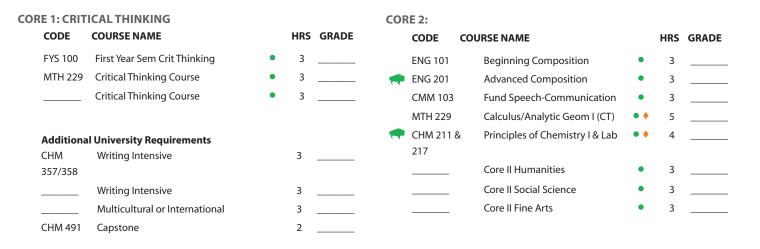
			FALL SEMESTER						SPRING SEMESTER			
		CODE	COURSE NAME		HRS	GRADE		CODE	COURSE NAME		HRS	GRA
		CHM 211	Principles of Chemistry I	• •	3		-	ENG 201	Advanced Composition	•	3	
		CHM 217	Principles of Chemistry I Lab	• •	2		-	CHM 212	Principles of Chemistry II	•	3	
E		BSC 120	Principles of Biology I	•	4			CHM 218	Principles of Chemistry II Lab	•	2	
ONE		ENG 101	Beginning Composition	•	3				Core I Critical Thinking	•	3	
щ		FYS 100	First Year Sem Crit Thinking	•	3			BSC 121	Principles of Biology II	•	4	
YEAR		UNI 100	Freshman First Class		1							
		TOTAL HO	DURS		16			TOTAL HO	DURS		15	
	Sum	mer Term (op	tional):									
			FALL SEMESTER						SPRING SEMESTER			
		CODE	COURSE NAME		HRS	GRADE		CODE	COURSE NAME		HRS	GR/
		CHM 355	Organic Chemistry I	•	3			CHM 356	Organic Chemistry II	•	3	
		PHY 201	College Physics I	•	3			CHM 361	Organic Chemistry Lab	•	3	
0		PHY 202	College Physics I Lab	•	1			PHY 203	College Physics II	•	3	
TWO		MTH 229	Calculus/Analytic Geom I (CT)	• •	5		-	PHY 204	College Physics II Lab	•	1	
E C			Core II Social Science	•	3			CMM 103	Fund Speech-Communication	•	3	
YEAR												
K												
		TOTAL HO	OURS		15			TOTAL HO	DURS		13	
	Sum	mer Term (op	tional):									
			FALL SEMESTER						SPRING SEMESTER			
		CODE	COURSE NAME		HRS	GRADE		CODE	COURSE NAME		HRS	GR/
		CHM 357	Physical Chemistry: Quantum (or	•	4				Enviro Science Requirement	•	4	
ш			358 in Spring) (WI)						Core II Humanities	•	3	
E		CHM 305	Research Methods Chemistry	•	1				Statistics Elective	٠	3	
HRE	-	CHM 305	Research Methods Chemistry Core II Fine Arts	•	1 3			 CHM 411	Statistics Elective Modern Instrumental Methods	•	3 3	
THREE	*	CHM 305 CHM 365		•				CHM 411 GLY 200				
AR	*		Core II Fine Arts	* • •	3				Modern Instrumental Methods	•	3	
YEAR THRE	•	 CHM 365	Core II Fine Arts Intro to Biochemistry Ecology	•	3 3				Modern Instrumental Methods Physical Geography	•	3	
AR	Sum	CHM 365 BSC 320	Core II Fine Arts Intro to Biochemistry Ecology	* * *	3 3 4			GLY 200	Modern Instrumental Methods Physical Geography	•	3 3	
AR	Sum	CHM 365 BSC 320 TOTAL HC mer Term (op	Core II Fine Arts Intro to Biochemistry Ecology	•	3 3 4 15			GLY 200	Modern Instrumental Methods Physical Geography DURS SPRING SEMESTER	•	3 3 16	
AR	Sum	CHM 365 BSC 320 TOTAL HC mer Term (op	Core II Fine Arts Intro to Biochemistry Ecology URS tional): FALL SEMESTER COURSE NAME	•	3 4 15 HRS	GRADE		GLY 200 TOTAL HO	Modern Instrumental Methods Physical Geography DURS SPRING SEMESTER COURSE NAME	•	3 3 16 HRS	GR
AR	Sum	CHM 365 BSC 320 TOTAL HC mer Term (op CODE CHM 423	Core II Fine Arts Intro to Biochemistry Ecology URS tional): FALL SEMESTER COURSE NAME Environmental Chemistry	•	3 4 15 HRS 3	GRADE		GLY 200	Modern Instrumental Methods Physical Geography URS SPRING SEMESTER COURSE NAME Chemistry Seminar	•	3 3 16 HRS 0	GRA
YEAR	Sum	CHM 365 BSC 320 TOTAL HC mer Term (op	Core II Fine Arts Intro to Biochemistry Ecology CURS tional): FALL SEMESTER COURSE NAME Environmental Chemistry Capstone Experience	•	3 4 15 HRS 3 2	GRADE		GLY 200 TOTAL HC CODE CHM 432	Modern Instrumental Methods Physical Geography DURS SPRING SEMESTER COURSE NAME Chemistry Seminar Free Elective	•	3 3 16 HRS 0 3	GRA
YEAR	Sum	CHM 365 BSC 320 TOTAL HC mer Term (op CODE CHM 423	Core II Fine Arts Intro to Biochemistry Ecology URS tional): FALL SEMESTER COURSE NAME Environmental Chemistry Capstone Experience Enviro Science Requirement		3 4 15 HRS 3 2 4	GRADE		GLY 200 TOTAL HO CODE CHM 432 GEO 416	Modern Instrumental Methods Physical Geography URS SPRING SEMESTER COURSE NAME Chemistry Seminar	•	3 3 16 HRS 0	GRA
YEAR	Sum	CHM 365 BSC 320 TOTAL HC mer Term (op CODE CHM 423 CHM 491	Core II Fine Arts Intro to Biochemistry Ecology URS TOURS FALL SEMESTER COURSE NAME Environmental Chemistry Capstone Experience Enviro Science Requirement Writing Intensive	• • • • •	3 4 15 HRS 3 2	GRADE		GLY 200 TOTAL HC CODE CHM 432 GEO 416 or 422	Modern Instrumental Methods Physical Geography SPURS SPRING SEMESTER COURSE NAME Chemistry Seminar Free Elective Envir Plan or Envir Geo	•	3 3 16 HRS 0 3 3	GRA
FOUR YEAR	Sum	CHM 365 BSC 320 TOTAL HC mer Term (op CODE CHM 423	Core II Fine Arts Intro to Biochemistry Ecology URS tional): FALL SEMESTER COURSE NAME Environmental Chemistry Capstone Experience Enviro Science Requirement		3 4 15 HRS 3 2 4	GRADE		GLY 200 TOTAL HO CODE CHM 432 GEO 416 or 422 BSC 445	Modern Instrumental Methods Physical Geography DURS SPRING SEMESTER COURSE NAME Chemistry Seminar Free Elective Envir Plan or Envir Geo	•	3 3 16 HRS 0 3 3	GRA
FOUR YEAR	Sum	CHM 365 BSC 320 TOTAL HC mer Term (op CODE CHM 423 CHM 491	Core II Fine Arts Intro to Biochemistry Ecology URS TOURS FALL SEMESTER COURSE NAME Environmental Chemistry Capstone Experience Enviro Science Requirement Writing Intensive		3 4 15 HRS 3 2 4 3	GRADE		GLY 200 TOTAL HC CODE CHM 432 GEO 416 or 422	Modern Instrumental Methods Physical Geography SPRING SEMESTER COURSE NAME Chemistry Seminar Chemistry Seminar Free Elective Envir Plan or Envir Geo Micro Ecology Assessment II	•	3 3 16 HRS 0 3 3 3 3 3 4	GRA
YEAR	Sum	CHM 365 BSC 320 TOTAL HC mer Term (op CODE CHM 423 CHM 491	Core II Fine Arts Intro to Biochemistry Ecology URS TOURS FALL SEMESTER COURSE NAME Environmental Chemistry Capstone Experience Enviro Science Requirement Writing Intensive		3 4 15 HRS 3 2 4 3	GRADE		GLY 200 TOTAL HO CODE CHM 432 GEO 416 or 422 BSC 445	Modern Instrumental Methods Physical Geography DURS SPRING SEMESTER COURSE NAME Chemistry Seminar Free Elective Envir Plan or Envir Geo	•	3 3 16 HRS 0 3 3	GR#

ENVIRONMENTAL CHEMISTRY

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.



MAJOR-SPECIFIC

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

C	CODE	COURSE NAME		HRS	GRADE		CODE	COURSE NAME		HRS	GRADE
,	CHM 211	Principles of Chemistry I	• •	3			PHY 201	College Physics I	•	3.	
,	CHM 217	Principles of Chemistry I Lab	• •	2		-	PHY 202	College Physics I Lab	٠	1.	
,	CHM 212	Principles of Chemistry II	٠	3		-	PHY 203	College Physics II	٠	3.	
— (CHM 218	Principles of Chemistry II Lab	٠	2		-	PHY 204	College Physics II Lab	٠	1.	
— (CHM 355	Organic Chemistry I	٠	3			BSC 120	Principles of Biology I	٠	4	
(CHM 356	Organic Chemistry II	•	3		-	BSC 320	Ecology	•	4	
(CHM 361	Organic Chemistry II Lab	٠	3			BSC 445	Micro Ecology	٠	4	
(CHM 305	Research Methods Chemistry	٠	1			GLY 200	Physical Geology	٠	3	
	CHM 357 or 358	Physical Chemistry: Quantum or Physical Chemistry: Thermo (WI)	٠	4			GEO 416 or 422	Envir Plan or Enviro Geo	•	3	
e (CHM 365	Biochemistry	٠	3			NRE 322	Assesment I	•	4	
(CHM 411	Modern Instrumental Methods	•	3			NRE 323	Assesment II	•	3	
(CHM 491	Capstone (C)	• •	2				Statistics Elective	•	3	
(CHM 432	Seminar	٠	0				Environ Science Requirement	٠	4	
?	CHM 423	Environ Analytical Chemistry	٠	3				Environ Science Requirement	٠	4	
								Free Elective		3 _	

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MAJOR INFORMATION

- · Students are required to know and track their degree requirements for graduation or for entrance to a professional school.
- · In addition to the Core General Education requirements, the College of Science requires 3 hours of Calculus, 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 or toward prerequisities.
- 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 27 or higher. Students with

an ACT Mathematics score less than 27 will be placed in the appropriate mathematics and science courses.

- Environ Science Requirement: Students should choose at least 8 credit hours from the following courses: BSC 431, 446 CHM 467 GLY 320L, 420, 455, 455L, 456, 456L NRE 320, 321 PHY 412; courses from a maximum of two departments may be selected. Students wishing a physical science emphasis may take all of the Geology electives and not take either BSC 445 or NRE 323.
- A Grade Point Average of 2.0 is required 1) overall, 2) at MU, 3) in all required Chemistry courses, 4) in all Chemistry courses, and 5) in all required Chemistry courses taken at MU.

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 twoyear 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 CHEMISTRY - 2019-2020

YEAR ONE



Stay on the Herd Path and come to class! Class attendance is more Develop relationships with professors important to your success than who can serve as future references by your high school GPA, your class attending their office hours. standing, or your ACT/SAT scores.





Join the Alpha Chi Sigma chemistry professional fraternity.

Did you do really well in a hard

course? Become a Tutor or a

Supplemental Instructor.

(A)

Develop relationships with professors

who can serve as future references by

attending their office hours.

Apply in the spring semester for

Chemistry Department scholarships

and summer fellowships.

Apply for a nationally competitive scholarship like Goldwater, Fullbright, Rhodes, or Gates Cambridge. Contact the Office of National Scholarships at Marshall.

YEAR TWO



opportunities with faculty in Chemistry right now.



Present your research at a national or regional American Chemical Society meeting.

Discuss undergraduate research

opportunities with faculty in

Chemistry right now.

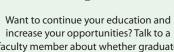
Take a pulse check. Know what

you need to do every year to keep

your grants, scholarships, or federal

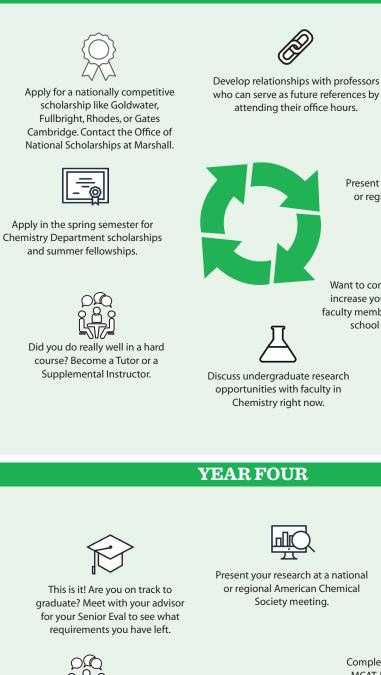
financial aid.





faculty member about whether graduate school fits your career goals.

Apply for a nationally competitive scholarship like Goldwater, Fullbright, Rhodes, or Gates Cambridge. Contact the Office of National Scholarships at Marshall.



YEAR THREE



Did you do really well in a hard course? Become a Tutor or a Supplemental Instructor.



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



Present your research at the College of Science Research Day.



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

- Product Development
- Process Development
- Analysis
- Quality Assurance/Control
- Environmental Analysis
- Chemical Engineer
- Pharmacist
- Pharmaceutical Sales
- Marketing



Present your research at a national or regional American Chemical Society meeting.



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



Complete admissions exams (GRE, MCAT, PCAT) the summer before your senior year.



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



Marshall University College of Science 1 John Marshall Drive Huntington, WV 25755 1-304-696-3170 cos@marshall.edu marshall.edu/cos