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FOUR YEAR PLAN COLLEGE OF SCIENCE 2023-2024

FORENSIC CHEMISTRY

This major is intended for students who wish to pursue a career in fields involving forensics. . Degrees offered by the Department of Chemistry provide a program of studies that allows the individual to: obtain high quality instruction in chemistry as a scientific discipline, obtain a sound background in preparation for advanced studies, meet the qualifications of professional chemists and accrediting agencies, or prepare for a professional career in medicine, dentistry, pharmacy, medical technology, engineering, nursing and other fields.

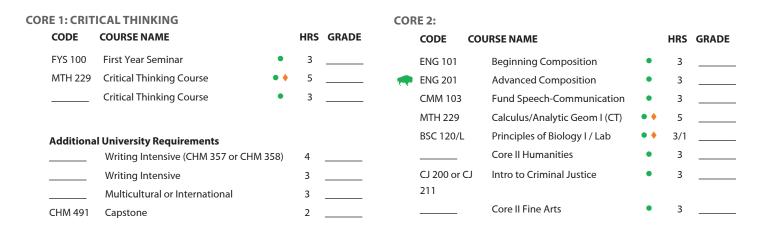
			FALL SEMESTER						SPRING SEMESTER			
		CODE	COURSE NAME		HRS	GRADE		CODE	COURSE NAME		HRS	GRAD
	.	CHM 211	Principles of Chemistry I	٠	3			MTH 229	Calculus/Analytic Geom I (CT)	• •	5	
		CHM 217	Principles of Chemistry I Lab	•	2		-	CHM 212	Principles of Chemistry II	•	3	
臼		BSC 120/L	Principles of Biology I / Lab	• •	3/1		-	CHM 218	Principles of Chemistry II Lab	٠	2	
ONE		ENG 101	Beginning Composition	•	3			BSC 121/L	Principles of Biology II / Lab	•	3/1	
		FYS 100	First Year Sem Crit Thinking	•	3							
YEAR		UNI 100	Freshman First Class		1							
Y												
		TOTAL HO	OURS		16			TOTAL HO	URS		14	
	Sum	mer Term (op	tional):									
		-	FALL SEMESTER		-	_		-	SPRING SEMESTER		-	-
		CODE	COURSE NAME		HRS	GRADE		CODE	COURSE NAME		HRS	GRA
		CHM 355	Organic Chemistry I	٠	3			CHM 356	Organic Chemistry II	•	3	
			Statistics Elective (STA 225 or 345)	•	3			CHM 361	Organic Chemistry Lab	•	3	
0		PHY 201	College Physics I	٠	3			PHY 203	College Physics II	•	3	
TWO		PHY 202	College Physics I Lab	•	1		-	PHY 204	College Physics II Lab	•	1	
		CJ 200	Intro to Criminal Justice	•	3			CMM 103	Fund Speech-Communication	•	3	
YEAR							-	ENG 201	Advanced Composition	•	3	
Т									·			
		TOTAL HO	URS		13			TOTAL HO	URS		16	
	Sum	mer Term (op	tional):									
			FALL SEMESTER						SPRING SEMESTER			
		CODE	COURSENAME		HRS	GRADE		CODE	COURSENAME		HRS	GRAI
		CHM 365	Biochemistry	•	3			CHM 358	Physical Chemistry I or (CHM 357	•	4	
田		CHM 305	Research Methods Chemistry	•	1				in Fall) (WI)			
Ξ	-		Core II Fine Arts	•	3				Core II Humanities (CT)	•	3	
Č.		CS 110		•	3			BSC 322	Cell Biology	•	4	
HREE		CSTIU	Computer Science I								3	
H		CJ 314	Computer Science I Crime Scene Investigation	٠	3				Criminal Law or Law of Evidence	٠	-	
AR T			•	٠	3			CJ 323 or 422	Criminal Law or Law of Evidence	•	Ū	
H			•	•	3			422		•	-	
AR T		CJ 314 TOTAL HO	Crime Scene Investigation	•	3 13					•	14	
AR T	Sum	CJ 314	Crime Scene Investigation	•				422		•		
AR T	Sum	CJ 314 TOTAL HO	Crime Scene Investigation	•				422		•		
AR T	Sum	CJ 314 TOTAL HO	Crime Scene Investigation OURS	•	13	GRADE		422	URS	•	14	GRA
AR T	Sum	CJ 314 TOTAL HC	Crime Scene Investigation OURS ational): FALL SEMESTER	•	13	GRADE		422 TOTAL HO	URS SPRING SEMESTER	•	14	GRA
YEAR T	Sum	CJ 314 TOTAL HC mer Term (op CODE	Crime Scene Investigation DURS Ditional): FALL SEMESTER COURSE NAME	•	13 HRS	GRADE		422 TOTAL HO CODE	SPRING SEMESTER		14 HRS	GRA
R YEAR T	Sum	CJ 314 TOTAL HC mer Term (op CODE CHM 345	Crime Scene Investigation Crime Scene Investigation FALL SEMESTER COURSE NAME Intro Analytical Chemistry	•	13 HRS 4	GRADE		422 TOTAL HO CODE	DURS SPRING SEMESTER COURSE NAME Chemistry Seminar	•	14 HRS 0	GRAI
OUR YEAR T	Sum	CJ 314 TOTAL HC mer Term (op CODE CHM 345 CHM 491	Crime Scene Investigation OURS Itional): FALL SEMESTER COURSE NAME Intro Analytical Chemistry Capstone Experience (or CHM 490	•	13 HRS 4 2	GRADE		422 TOTAL HO CODE	DURS SPRING SEMESTER COURSE NAME Chemistry Seminar 300/400 CHM Elective		14 HRS 0 3	GRA
FOUR YEAR T	Sum	CJ 314 TOTAL HC mer Term (op CODE CHM 345 CHM 491	Crime Scene Investigation URS tional): FALL SEMESTER COURSE NAME Intro Analytical Chemistry Capstone Experience (or CHM 490 Genetics	•	13 HRS 4 2 4	GRADE		422 TOTAL HO CODE CHM 432 	DURS SPRING SEMESTER COURSE NAME Chemistry Seminar 300/400 CHM Elective Restricted Elective		14 HRS 0 3	GRA
AR FOUR YEAR T	Sum	CJ 314 TOTAL HC mer Term (op CODE CHM 345 CHM 491	Crime Scene Investigation Crime Scene Investigation FOURS tional): FALL SEMESTER COURSE NAME Intro Analytical Chemistry Capstone Experience (or CHM 490 Genetics Writing Intensive)) •	13 HRS 4 2 4 3	GRADE		422 TOTAL HO CODE CHM 432 	DURS SPRING SEMESTER COURSE NAME Chemistry Seminar 300/400 CHM Elective Restricted Elective Instrumental Methods		14 HRS 0 3 4 4	GRA
FOUR YEAR T	Sum	CJ 314 TOTAL HC mer Term (op CODE CHM 345 CHM 491	Crime Scene Investigation CURS titional): FALL SEMESTER COURSE NAME Intro Analytical Chemistry Capstone Experience (or CHM 490 Genetics Writing Intensive Restricted Elective)) •	13 HRS 4 2 4 3	GRADE		422 TOTAL HO CODE CHM 432 	DURS SPRING SEMESTER COURSE NAME Chemistry Seminar 300/400 CHM Elective Restricted Elective Instrumental Methods Multicultural or International		14 HRS 0 3 4 4	GRA

FORENSIC CHEMISTRY

REQUIREMENTS

disciplines. The Core ap

CORE CURRICULUM The Core Curriculum is designed to foster critical thinking skills and introduce students to basic domains of thinking that transcend plies to all majors. Information on specific classes in the Core can be found at marshall.edu/gened.



MAJOR-SPECIFIC

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

	CODE	COURSE NAME		HRS	GRADE		CODE	COURSE NAME		HRS	GRADE
-	CHM 211	Principles of Chemistry I	٠	3			PHY 201	College Physics I	٠	3	
-	CHM 217	Principles of Chemistry I Lab	٠	2		-	PHY 202	College Physics I Lab	٠	1	
(CHM 212	Principles of Chemistry II	٠	3		1	PHY 203	College Physics II	٠	3	
-	CHM 218	Principles of Chemistry II Lab	٠	2		1	PHY 204	College Physics II Lab	٠	1	
1	CHM 355	Organic Chemistry I	٠	3				Statistics Elective (STA 225 or 345)	٠	3	
	CHM 356	Organic Chemistry II	•	3			MTH 229	Calculus/Analytic Geom I (CT)	• •	5	
	CHM 361	Organic Chemistry II Lab	٠	3			BSC 120/L	Principles of Biology I / Lab	• •	3/1	
	CHM 305	Research Methods Chemistry	٠	1			BSC 121/L	Principles of Biology II / Lab	٠	3/1	
	CHM 345	Intro Analytical Chemistry	٠	4			BSC 322	Cell Biology	٠	4	
	CHM 357	Physical Chemistry: Quantum or	٠	4			BSC 324	Genetics	٠	4	
	or 358	Physical Chemistry: Thermo (WI)					CS 110	Computer Science I	٠	3	
-	CHM 365	Biochemistry	٠	3				Restricted Elective	٠	3	
	CHM 411	Instrumental Methods	٠	4				Restricted Elective	٠	3	
	CHM 491	Capstone or CHM 490	• •	2			CJ 314	Crime Scene Investigation	٠	3	
	CHM 432	Seminar	٠	0			CJ 323 or	Criminal Law or Law of Evidence	٠	3	
		300/400 CHM Elective	•	3			422				

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 minor 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 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.
- Statistics Elective: Choose from STA 225 or STA 345.
- Restricted Elective: Choose two courses from BSC 450, CHM 428 or 467. Students are strongly encouraged to engage in a Forensic Chemistry related Capstone Experience (CHM 491).
- 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.
- Double majors within the Department of Chemistry may include any majors other than the B.S., Major in Chemical Sciences. A double major of Forensic Chemistry with Biochemistry is also currently not permitted.

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.

FORENSIC CHEMISTRY – 2023-2024 **YEAR ONE**

YEAR THREE



scholarship like Goldwater,

Fullbright, Rhodes, or Gates

Cambridge. Contact the Office of

National Scholarships at Marshall.

Apply in the spring semester for

Chemistry Department scholarships

and summer fellowships.

Develop relationships with professors who can serve as future references by attending their office hours.

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Chemistry right now.

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

Discuss undergraduate research opportunities with faculty in

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.

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

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.

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

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

Develop relationships with professors

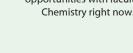
who can serve as future references by

attending their office hours.

Apply in the spring semester for

Chemistry Department scholarships

and summer fellowships.



Society meeting.

Want to continue your education and

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

Discuss undergraduate research

opportunities with faculty in

Chemistry right now.

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

Stay on the Herd Path and come

to class! Class attendance is more

important to your success than

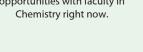
your high school GPA, your class

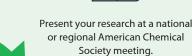
standing, or your ACT/SAT scores.

YEAR TWO



Discuss undergraduate research opportunities with faculty in Chemistry right now.





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

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



Join the Alpha Chi Sigma chemistry professional fraternity.

Develop relationships with professors

who can serve as future references by

attending their office hours.

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!

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.





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