















CHEMICAL SCIENCES, B.S. - FORENSIC SCIENCE EMPHASIS










Course Requirements

 - General Education Course

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

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 <https://www.marshall.edu/gened/>.

Code	Title	Credit Hours
Core Curriculum		
<i>Core I: Critical Thinking</i>		
FYS 100	First Yr Sem Critical Thinking	3
MTH 229 	Calculus/Analytic Geom I (CT)	5
	Critical Thinking Course	3
<i>Core II</i>		
ENG 101 	Beginning Composition	3
ENG 201 	Advanced Composition	3
CMM 103 	Fund Speech-Communication	3
MTH 229 	Calculus/Analytic Geom I (CT)	5
CHM 211 	Principles of Chemistry I	3
CHM 217 	Principles of Chem Lab I	2
Core II Humanities		
Core II Social Science		
Core II Fine Arts		
<i>Additional University Requirements</i>		
	Writing Intensive (CHM 357 or 358)	3
	Writing Intensive	3
	Multicultural or International	3
CHM 491 	Capstone Experience	2
or CHM 490 	Internship	
Major-Specific		
CHM 211 	Principles of Chemistry I	3
CHM 217 	Principles of Chem Lab I	2
CHM 212 	Principles Chemistry II	3
CHM 218 	Principles of Chem Lab II	2
CHM 355	Organic Chemistry I	3
CHM 356	Organic Chemistry II	3
CHM 361	Intro Organic Chm Lab	3
CHM 305	Research Methods Chem	1
Select one of the following:		
CHM 357	Physical Chemistry: Quantum	
CHM 358	Physical Chemistry: Thermo.	

CHM 345	Intro to Analytical Chem	4
CHM 365	Introductory Biochemistry	3
CHM 411	Modern Instrument Methods	4
CHM 448	Adv Inorganic Chemistry I	4
CHM 467	Intermediate Biochemistry	3
CHM 491 	Capstone Experience	2
or CHM 490 	Internship	
CHM 432	Chemistry Seminar	0
300/400 CHM eletive		3
FSC 224 	Intro to Forensic Science	4
CJ 200 	Intro to Criminal Justice	3
or CJ 211 	Intro to Law Enforcement	
Select one of the following:		3
CJ 314	Crime Scene Investigation	
CJ 323	Criminal Procedure	
CJ 422	Law of Evidence	
CS 110	Computer Science I	
PHY 201 	College Physics I	3
PHY 202 	General Physics I Laboratory	1
PHY 203 	College Physics II	3
PHY 204 	General Physics 2 Laboratory	1
Electives ¹		
Science or Math elective		4
Science or Math elective		4
Science or Math elective		4
Free Elective		3
Free Elective		2

¹ Students interested in careers in technical sales, management and marketing in the chemical industry are encouraged to take the following courses as electives:

ECN 250 Principles Microeconomics
ECN 253 Principles Macroeconomics
MKT 340 MKT Concepts and Applications
MKT 440 Sales Management
MGT 320 Principles of Management


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 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 semester's *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 of less than 27 will be placed in the appropriate prerequisite mathematics and science courses.
- A Grade Point Average of 2.0 is required:
 - overall,
 - at MU,
 - in all required Chemistry courses,
 - in all Chemistry courses, and
 - in all required Chemistry courses taken at MU.

Semester Plan




 - General Education Course

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

First Year




First Semester	Credit Hours
CHM 211  Principles of Chemistry I	3
CHM 217  Principles of Chem Lab I	2
MTH 229  Calculus/Analytic Geom I (CT)	5
FYS 100 First Yr Sem Critical Thinking	3
Free Elective	1
UNI 100 Freshman First Class	1
Credit Hours	15

Second Semester

ENG 101  Beginning Composition	3
CHM 212  Principles Chemistry II	3
CHM 218  Principles of Chem Lab II	2
Core I: Critical Thinking	3
Science or Math elective	4
Credit Hours	15




Second Year

First Semester

CHM 355 Organic Chemistry I	3
PHY 201  College Physics I	3
PHY 202  General Physics I Laboratory	1
Core II Social Science	3
ENG 201  Advanced Composition	3
Free Elective	2
Credit Hours	15


Second Semester

CHM 356 Organic Chemistry II	3
CHM 361 Intro Organic Chm Lab	3

PHY 203  College Physics II	3
PHY 204  General Physics 2 Laboratory	1
CMM 103  Fund Speech-Communication	3
Core II Fine Arts	3
Credit Hours	16

Third Year

First Semester





300/400 CHM elective	3
CHM 305 Research Methods Chem	1
Core II Humanities	3
Writing Intensive	3
FSC 224  Intro to Forensic Science	4
CHM 365 Introductory Biochemistry (Free Elective)	3
Credit Hours	17

Second Semester

CHM 358 Physical Chemistry: Thermo. Science or Math Elective	4
CHM 467 Intermediate Biochemistry (Free Elective)	3
Free Elective	1
Credit Hours	12

Fourth Year

First Semester

CHM 345 Intro to Analytical Chem	4
CHM 491  Capstone Experience or CHM 490 or Internship 	2
CHM 448 Adv Inorganic Chemistry I	4
Writing Intensive	3
CJ 211  Intro to Law Enforcement (PR for CJ 314) or CJ 200 	3
Credit Hours	16

Second Semester

CHM 432 Chemistry Seminar	0
CHM 411 Modern Instrument Methods (Science or Math elective)	4
Multicultural or International	3
CS 110 Computer Science I	3
Select one of the following:	3
CJ 314 Crime Scene Investigation	
CJ 323 Criminal Procedure	
CJ 422 Law of Evidence	
Free Elective	2
Credit Hours	15
Total Credit Hours	121