



DEGREE: CHEMISTRY - MEDICAL SCIENCES

<i>Chemistry Core Requirements</i>	<i>Completed</i>	<i>Credit</i>	<i>College Core Requirements</i>	<i>Completed</i>	<i>Credit</i>
Chemistry Core (27 semester hours)			English Composition (6 semester hours)		
CHE 141 General Chemistry I	_____	4	ENG 101 and ENG 102 or ENG 103	_____	3
CHE 142 General Chemistry II	_____	4		_____	3
CHE 303 Organic Chemistry I	_____	3	Literature (3 semester hours - choose one)		
CHE 313 Organic Chemistry I Lab	_____	2	ENG 211/212/213	_____	3
CHE 304 Organic Chemistry II	_____	3			
CHE 314 Organic Chemistry II Lab	_____	2	History (6 semester hours - choose one pair)		
CHE 310 Quantitative Chemical Analysis	_____	4	HIS 103 and 104	_____	3
CHE 317 Chemical Dynamics	_____	4	HIS 211 and 212	_____	3
CHE 431 Chemistry Seminar	_____	1	Bible (6 semester hours)		
Physics (8 semester hours) #			BIB 110	_____	3
PHY 251 Fund. of Physics I	_____	4	BIB 120	_____	3
PHY 252 Fund. of Physics II	_____	4	Social Sciences (3 semester hours - any one)		
Mathematics (6 semester hours)			ECO 231/*SOC 205/PLS 201/*PSY 201/	_____	3
MAT 121 Cal. w/Analytic Geometry I	_____	3	MLG 205/GBU 151		
MAT 122 Cal. w/Analytic Geometry II	_____	3	Fine Arts (3 semester hours - choose one)		
Technology (3 semester hours - choose one)			ART 125/MUS 125/THE 125	_____	3
CSC 114 Introduction to Computer Science	_____	3	Physical Education Activity (2 semester hours)		
CSC 115 Foundations of CS (preferred)	_____	3	KIN 123 OR two (1-hour) PED activity course	_____	1
Communications (3 semester hours)				_____	1
COM 203 Professional Com. Skills	_____	3	Writing Proficiency Exam		
COM 304 Public Speaking or participation in a minimum of three hours of research w/an oral presentation at a professional meeting.	_____	3	ENG 099	_____	0
			Chapel as specified upon entry		
			Freshmen 4 semesters	_____	0
			Sophomore 3 semesters	_____	0
			Junior 2 semesters	_____	0
			Senior 1 semester	_____	0
			Science - Contained in major		
			Mathematics - Contained in major		
			Modern Languages - Not required		
			Technology - Contained in major		
			Electives:		
			_____	_____	
			_____	_____	
			_____	_____	
			To Graduate:		
			130 Hours	_____	
			39 Hours of 300-400 level courses	_____	
			30 Hours of Chemistry	_____	

DEGREE: CHEMISTRY/MEDICAL SCIENCES

A minimum of 4 semester hours - chosen from:
(CHE 418 and 419 Recommended for Medical & Dental School)

CHE 418 Biochem. I: Macromolecules _____ 3
 CHE 419 Biochem. II: Metabolism _____ 3
 CHE 420 Bioanalytical Chemistry Lab _____ 1
 CHE 421 Biophysical Chemistry Lab _____ 1

Biology (8 semester hours)
 BIO 111 Biology I _____ 4
 BIO 112 Biology II _____ 4

Notes:

- # PHY 151 - 152 may substitute
- * PSY 201 and SOC 205 recommended for Medical School
- MAT 207 Statistics is required for UMMC Dental School
- ** Students planning to continue their education in a professional school should consult those schools for specific admission requirements
- ***Qualified Students are encourage to participate in an independent research project or the Honors Program (see advisor for details)

For More Information:
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Major: Chemistry - Medical Sciences

FIRST YEAR - FALL	HRS
CHE 141 ^{F, S1} General Chemistry I with lab	4
MAT 121 Calculus w/ Analytical Geometry I	3
BIO 111 ^F Biology I with lab	4
ENG 101 English Composition	3
Core	3
Chapel (Freshman Experience)	<u>0</u>
	17

SECOND YEAR - FALL	HRS
CHE 303 ^{F, S1} Organic Chemistry I	3
CHE 313 ^{F, S1} Organic Chemistry II lab	2
CHE 310 ^{F, Sp} Quantitative Chem. Analysis	4
BIO 306 ^{F, Sp, S1} Genetics *	3
Elective	2
CSC 115 ^{F, Sp} Technology Core	3
Chapel	<u>0</u>
	17

THIRD YEAR - FALL	HRS
CHE 317 ^F Chemical Dynamics	4
PHY 252 ^F Fundamentals of Physics II	4
Biology Course (BIO 403, 404, 412, OR 425) *	5
Core	<u>3</u>
	16

FOURTH YEAR - FALL	HRS
CHE 418 ^{F, S1} Biochemistry I: Metabolism	3
Chemistry, Biology or Elective	7
Core	<u>6</u>
	16

Additional Chemistry Courses

CHE 318 ^{Sp} Chemical Energetics	4
CHE 402 ^F Advanced Organic Chemistry	4
CHE 410 ^{Sp} Instrumental Analysis *	4
CHE 411 ^{Sp} Advanced Inorganic Chem.	3
CHE 415 Synthetic Inorganic Chemistry	3
CHE 417 ^{Sp} Theoretical Chemistry (Odd Numbers)	3
CHE 419 ^{Sp, S2} Biochemistry II: Metabolism *	3
CHE 420 ^F Biochemistry II Laboratory	1
CHE 421 ^{Sp} Biochemistry II Laboratory	1
CHE 451 OR 452 ^{F, Sp, S1, S2} Ind. Studies and Research	3
CHE 361, 462, 463 ^{F, Sp, S1, S2} Honors Sequence *	1,2,3

* Recommended.

3.3.23

FIRST YEAR - SPRING	HRS.
CHE 142 ^{Sp, S2} General Chemistry II with lab	4
MAT 122 Calculus w/ Analytical Geometry II	3
BIO 112 ^{Sp} Biology II with lab	4
ENG 102 or 103 English Composition II	3
Core	3
Chapel	<u>0</u>
	17

SECOND YEAR - SPRING	HRS
CHE 304 ^{Sp, S2} Organic Chemistry II	3
CHE 314 ^{Sp, S2} Organic Chemistry II lab	2
PHY 251 ^{Sp} Fundamentals of Physics I	4
BIO 305 ^{F, Sp, S1} Cell Biology *	3
Core	4
Chapel	<u>0</u>
	16

THIRD YEAR - SPRING	HRS
Chemistry, Biology, or Elective	8
Core	<u>7</u>
	15

FOURTH YEAR - SPRING	HRS
CHE 419 ^{Sp, S2} Biochemistry II: Metabolism *	3
CHE 431 ^{Sp} Chemical Seminar	1
Chemistry, Biology or Elective	8
Core	<u>4</u>
	16

Suggested Biology Courses

Consult catalog for prerequisite(s).

Bio 403 Vertebrate Histology	5
Bio 404 Pharmacology 1	5
Bio 410 Human Gross Anatomy *	8
Bio 412 Medical Physiology *	6
Bio 425 Human Neuroanatomy	5

Key

F= Fall Semester

Sp = Spring Semester

S1 = First 5 week summer term

S2 = Second week summer term