Mississippi College
A CHRISTIAN UNIVERSITY

Department of Chemistry and Biochemistr
B.S. Chemistry Degree Requirements

ACS Chemistry for Life®

DEGREE: ACS BIOCHEMISTRY

Chemistry Core Requirements	*Completed*	*Credit*
Chemistry Core (27 semester hours)		
CHE 141 General Chemistry I	_____	4
CHE 142 General Chemistry II	_____	4
CHE 303 Organic Chemistry I	_____	3
CHE 313 Organic Chemistry I Lab	_____	2
CHE 304 Organic Chemistry II	_____	3
CHE 314 Organic Chemistry II Lab	_____	2
CHE 310 Quantitative Chemical Analysis	_____	4
CHE 317 Chemical Dynamics	_____	4
CHE 431 Chemistry Seminar	_____	1
Physics (8 semester hours) #		
PHY 251 Fund. of Physics I	_____	4
PHY 252 Fund. of Physics II	_____	4
Mathematics (6 semester hours)		
MAT 121 Cal. w/Analytic Geometry I	_____	3
MAT 122 Cal. w/Analytic Geometry II	_____	3
Technology (3 semester hours - choose one)		
CSC 114 Introduction to Computer Science	_____	3
CSC 115 Foundations of CS **(preferred)**		
Communications (3 semester hours)		
COM 203 Professional Com. Skills	_____	3
COM 304 Public Speaking or participation in a minimum of three hours of research w/an oral presentation at a professional meeting.		

DEGREE: ACS BIOCHEMISTRY		
Chemistry (18 semester hours)		
CHE 211 Invest. In Inorganic Chem.	_____	1
CHE 318 Chemical Energetics	_____	4
CHE 410 Instrumental Analysis	_____	4
CHE 411 Advanced Inorganic Chem.	_____	3
CHE 418 Biochem. I: Macromolecules	_____	3
CHE 419 Biochem. II: Metabolism	_____	3
(1 or 2 semester hours)		
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
(3 or 4 semester hours - choose one)		
BIO 305 Cell Biology	_____	3
BIO 306 Genetics		3
BIO 414 General Microbiology		4
(Suggested)		
BIO 307 Cell and Genetics Lab	_____	2

Notes:

PHY 151 - 152 may substitute

* PSY 201 and SOC 205 recommended for Medical School

** Students planning to continue their education in a professional school should consult those schools for specific admission requirements.

College Core Requirements	*Completed*	*Credit*
English Composition (6 semester hours)		
ENG 101	_____	3
ENG 102	_____	3
Literature (6 semester hours - choose two)		
ENG 211/212/213	_____	3
	_____	3
History (6 semester hours - choose one pair)		
HIS 101 and 102/HIS 103 and	_____	3
104/HIS 211 and 212	_____	3
Bible (6 semester hours)		
BIB 110	_____	3
BIB 120	_____	3
Social Sciences (6 semester hours - choose two)		
ECO 131 (or 231)/*SOC 205/	_____	3
PLS 201/*PSY 201/PHI/MLG 205	_____	3
Fine Arts (3 semester hours - choose one)		
ART 125/MUS 125/THE 125	_____	3
Physical Education Activity (3 semester hours)		
PED	_____	1
PED	_____	1
PED	_____	1
Writing Proficiency Exam		
ENG 099	_____	0
Chapel (4 semesters)		
Chapel I	_____	0
Chapel II	_____	0
Chapel III	_____	0
Chapel IV	_____	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		_____
45 - 46 Hours of Chemistry		_____

For More Information:
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***Qualified Students are encourage to participate in an independent research project or the Honors Program (see advisor for details)

Major: ACS Biochemistry

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 Compostion	3
Core	3
Chapel (Freshman Experience)	0
	17

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	0
	17

SECOND YEAR - FALL	
CHE 303 F, S1 Organic Chemistry I	3
CHE 313 F, S1 Organic Chemistry II lab	2
CHE 310 F, Sp Quantatative Chem. Analysis	4
CSC 115 F, Sp Technology Core	3
Core	4
Chapel	0
	16

SECOND YEAR - SPRING	
CHE 304 Sp, S2 Organic Chemistry II	3
CHE 314 Sp, S2 Organic Chemsitry II lab	2
PHY 251 Sp Fundamentals of Physics I	4
CHE 211 Sp Invest.of Inorganic Chemistry	1
Chemistry Course or General Elective	3
COM 203 or 304 Communication Requirement	3
Chapel	0
	16

THIRD YEAR - FALL	
CHE 317 F Chemical Dynamics	4
PHY 252 F Fundamentals of Physics II	4
BIO 305, 306 or 414 Upper Level Biology	3 or 4
Core	4
	15 or 16

THIRD YEAR - SPRING	
CHE 318 Sp Chemical Energetics	4
CHE 410 Sp Instrumental Analysis	4
Chemistry Course or General Elective	3
Core	6
	17

FOURTH YEAR - FALL	
CHE 418 F, S1 Biochemistry I: Metabolism	3
CHE 420 F Biochemistry I Laboratory	1
Chemistry Course or General Elective	7
Core	6
	17

FOURTH YEAR - SPRING	
CHE 411 Sp Advance Inorganic Chemistry	3
CHE 419 Sp, S2 Biochemistry II: Metabolism	3
CHE 431 Sp Chemical Seminar	1
Chemistry Course or General Elective	4
Core	4
	15

Additional Chemistry Courses	
CHE 402 F Advance Organic Chemistry	4
CHE 415 Synthetic Inorganic Chemistry	3
CHE 417 Sp Theoretical Chemistry (Odd yrs.)	3
CHE 421 Sp Biochemistry II Laboratory	1
CHE 451 OR 452 F, Sp, S1, S2 Ind. Studies and Resear	3,3
CHE 361, 462, 463 F, Sp, S1, S2 Honors Sequence	1,2,3

Key

F= Fall Semester

Sp = Spring Semester

S1 = First 5 week summer term

S2 = Second week summer term

131