

**COLLEGE OF LIBERAL ARTS & SCIENCES • BS • BIOCHEMISTRY**

Program Number: 21301

Version Number:

Effective Date: Fall 2011

**GENERAL EDUCATION**

I. UNIVERSITY CORE (12 credits)	RC	CR	GR	
A. Oral Communication: SPE 010 or above				
COURSE:	3			
B. Written Communication: ENG 023, 024, or 025				
COURSE:	3			
C. Mathematics: MAT 017 or above				
COURSE:	3			
D. Wellness: HEA 110 + activity; or 3-credit Wellness course				
COURSE:	3			
II. UNIVERSITY DISTRIBUTION (15 credits)	RC	CR	GR	CAC
A. Natural Sciences: Any lab or non-lab course with prefix AST, BIO, CHM, ENV, GEL, MAR, or PHY; or certain GEG courses (see note at right)				
COURSE:	3			
B. Social Sciences: Any course with prefix ANT, CRJ, ECO, HIS, INT, MCS, PSY, POL, SOC, or SWK; or certain GEG courses (see note at right)				
COURSE:	3			
C. Humanities: Any course with prefix ENG, HUM, PAG, PHI, WRI, WST, or Modern Language				
COURSE:	3			
D. Arts: Any course with prefix ARC, ARH, ART, CDE, CDH, CFT, DAN, FAR, FAS, MUP, MUS, or THE				
COURSE:	3			
E. Free Elective: Any course carrying university credit				
COURSE:	3			

III. COMPETENCIES ACROSS THE CURRICULUM	RC	CR	GR	CAC
A. Writing Intensive (WI) (9 credits)				
COURSE:	3			WI
COURSE:	3			WI
COURSE:	3			WI
B. Quantitative Literacy (QL) (3 credits) <b>OR</b> Computer-Intensive (CP) (3 credits)				
COURSE:	3			
C. Visual Literacy (VL) (3 credits) <b>OR</b> Communication-Intensive (CM) (3 credits)				
COURSE:	3			
D. Cultural Diversity (CD) (3 credits)				
COURSE:	3			CD
E. Critical Thinking (CT) (3 credits)				
COURSE:	3			CT

A Competency Across the Curriculum (CAC) course is not a separate course, but rather an overlay that is "double counted" as fulfilling both the CAC requirement and another requirement in either General Education (except for the University Core), the major, or the minor.

RC = Minimum required number of credits  
 CR = Credits earned (fill in number of credits)  
 GR = Grade earned (fill in letter grade)  
 CAC = Competency Across the Curriculum (fill in designation)

**NOTE:** GEG courses with a lab and 040, 322, and 323 may be used in II.A. and GEG courses 040, 204, 274, 305, 322, 323, 324, 347, 380, and 394 may NOT be used in II.B.

IV. COLLEGE DISTRIBUTION (33 credits)	RC	CR	GR	CAC
A. Natural Science, Mathematics, and Computer Science# (6 credits): Choose one course in each subcategory.				
1. Natural Science with Lab: AST, BIO, CHM, ENV, GEL, PHY, or MAR; or GEG (see note at right)				
COURSE:	3			
2. Elective: MAT, CSC, AST, BIO, CHM, ENV, GEL, PHY, or MAR; or GEG (see note at right)				
COURSE:	3			
B. Social Science (9 credits): Choose one course in each subcategory.				
1. Elective: HIS, ANT, GEG (see note at right), or POL				
COURSE:	3			
2. Elective: PSY, SOC, CRJ, or SWK				
COURSE:	3			
3. Elective: ANT, HIS, ECO, GEG (see note at right), PSY, POL, SOC, CRJ, or SWK				
COURSE:	3			

	RC	CR	GR	CAC
C. Humanities (9 credits): Choose one course in each subcategory.				
1. Elective: PAG*, ENG, WRI, or HUM				
COURSE:	3			
2. Elective: (MLS, GER, SPA, FRE, CHI, or ARA)* or PHI				
COURSE:	3			
3. Elective: (PAG, MLS, GER, SPA, FRE, CHI, or ARA)*, ENG, WRI, HUM, or PHI				
COURSE:	3			
D. Free Electives (9 credits): Choose any university courses that count toward graduation.				
COURSE:	3			
COURSE:	3			
COURSE:	3			

**NOTE:** GEG courses with a lab and 040, 322, and 323 may be used in IV.A. and GEG courses 040, 204, 274, 305, 322, 323, 324, 347, 380, and 394 may NOT be used in IV.B.

# Students in the College of Liberal Arts and Sciences are required to take at least one course in Biological Science (BIO) and at least one course in Physical Science (AST, CHM, ENV, GEL, PHY, MAR, GEG with lab, or GEG 040, GEG 322, or GEG 323), and at least one of which must be a lab (each course may be counted in either sections II.A. or IV.A).

\* Excludes courses in language instruction, conversation, composition, linguistics, syntax, stylistics, and internship courses; contact the Modern Language Studies Department for clarification.

**LIBERAL ARTS AND SCIENCES: BACHELOR OF SCIENCE  
BIOCHEMISTRY**

<b>VI. MAJOR PROGRAM: 57 S.H.</b>		
<b>A. Required CHM: 34 S.H.</b>	<b>Gr.</b>	<b>S.H.</b>
CHM 100 General Chemistry I		4
CHM 102 General Chemistry II		4
CHM 214 Organic Chemistry I		4
CHM 216 Organic Chemistry II		4
CHM 230 Analytical Chemistry I		4
CHM 310 Biochemistry I		4
CHM 312 Biochemistry II		4
CHM 314 Physical Chemistry I		4
CHM 380 Senior Seminar in Chem.		2
<b>B. Required BIO: 17 S.H.</b>		
BIO 104 Principles of Biology		4
BIO 106 Intro. To Zoology <b>OR</b> BIO 108 Intro. To Botany		4
BIO 310 Genetics		3
BIO 346 Molecular Biology		3
BIO 350 Cell Biology		3
<b>C. CHM Electives: 4/7 S.H.</b>		
CHM 316 Physical Chemistry II		4
CHM 318 Advanced Biochemistry		3
CHM 320 Adv. Inorganic Chemistry		4
CHM 326 Adv. Organic Chemistry		3
CHM 336 Adv. Physical Chemistry		3
CHM 340 Analytical Chemistry II		4
CHM 351 Selected Topics		1-6
CHM 370 Research in Chemistry I		1-3*
CHM 371 Research in Chemistry II		1-3*
CHM 390 Internship in Chemistry		1-4
<b>D. BIO Elective: 0/3 S.H.</b>		
BIO 224 Appl. Env. Microbiology		3
BIO 232 Plant Physiology		3
BIO 234 Animal Physiology		3
BIO 336 Medical Microbiology		3
BIO 370 Research in Biology		1-3*
BIO 390 Internship in Biology		3-6
<b>VII. CONCOMITANT COURSES: 14 S.H.</b>		
<b>A. PHYSICS: 8 S.H.</b>		
PHY 100 Physics I		4
PHY 102 Physics II		4
<b>B. MATHEMATICS: 6 S.H.</b>		
MAT 171 Calculus I		3
MAT 172 Calculus II		3
<b>TOTAL SEMESTER HOURS</b>		

<b>VIII. GRADUATION CLEARANCE</b>	
A. Cumulative Q.P.A.	_____
B. Total Semester Hours	_____
a. General Education	_____
b. Major Program	_____
c. Concomitant	_____
<b>GRAND TOTAL</b>	_____
C. Comprehensive Exam Passed	
yes	no
Advisor's Signature	_____
Date	_____

<b>NOTES</b>
*The combined credit total toward the BS Biochemistry degree for CHM 370, CHM 371, and BIO 370 may not exceed 4 S.H.
A minimum of 120 s.h. are required for graduation.

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