COLLEGE OF ARTS & SCIENCES 2024-2025 BS CHEMISTRY DEGREE PLAN

			YEAR -	FRES	HMAN (20-21)			
	Fall Semester					Spring Semester			
Dept	Crse#	Course Name	Hrs	Dept	Crse#	Course Name	Hrs		
MAT	120	Precalculus ²	4	MAT	122	Analytics & Calculus I	5		
CHE	121	General Chemistry I	3	CHE	122	General Chemistry II	3		
CHE	121L	General Chemistry I Lab	1	CHE	122L	General Chemistry II Lab	1		
ENG	101	English Composition I ¹	3	ENG	102	English Composition II ¹	3		
BPH	100	Special Topics in Science	0.5	BIB	122	Acts of the Apostles ¹	2		
BIB	121	Life of Christ ¹	2						
		Other minor requirement ⁶	3						
			16.5				14		
		SECOND	YEAR -	SOPH	OMORI	E (21-22)			
	Fall Semester					Spring Semester			
Dept	Crse#	Course Name	Hrs	Dept	Crse#	Course Name	Hrs		
MAT	223	Analytics & Calculus II ⁵	4			Behaviorial Science Elective ¹	3		
PHS	211	Physics for Sci. & Engr. I ⁴	4	PHS	212	Physics for Sci. & Engr. II ²	4		
CHE	321	Organic Chemistry I	4	CHE	322	Organic Chemistry II	4		
BIO	205	Cell Biology ⁶	3			Other minor requirement ⁶	3		
BPH	200	Special Topics in Science	0.5	BIB		Bible Course	2		
BIB		Bible Course	2						
			17.5				16		
		THIR	D YEAR	- JUN	IOR (2	2-23)			
		Fall Semester				Spring Semester			
Dept	Crse#	Course Name	Hrs	Dept	Crse#	Course Name	Hrs		
HIS		History Elective ¹	3	CHE	221	Analytical Chemistry ⁵	4		
CHE	331	Biochemistry I ⁶	4	CHE	332	Biochemistry II ⁶	4		
BIO	333	Cell Biology & Molec. Gen. ⁶	4	COM	140	Speech Communication ¹	3		
		Other minor requirement ⁸	3	BPH	300	Special Topics in Science	1		
BIB	(4)346	Christ. Evid. / Found. of Faith ¹	3			Other minor requirement ⁸	3		
				BIB		Bible Course	3		
			17				14		
		FOUR	ΓΗ ΥΕΑΙ	R - SE	NIOR (23-24)			
		Fall Semester				Spring Semester			
				Dent	Crse#	Course Name	Hrs		
Dept	Crse#		Hrs	Denr					
Dept CHE		Course Name	Hrs 4	CHE		Kinetics and Thermodynamics ^{5,7}	4		
	Crse# 421	Course Name Quantum Chemistry ^{5,7}			422	Kinetics and Thermodynamics ^{5,7} UD Chem, Elective (or Bio) ³			
		Course Name Quantum Chemistry ^{5,7} Critical/Creative Elective ¹	4	CHE		Kinetics and Thermodynamics ^{5,7} UD Chem. Elective (or Bio) ³ Biological Conc. of Origins	4		
CHE		Quantum Chemistry ^{5,7} Critical/Creative Elective ¹ UD Chem. Elective (or Bio) ³	4 3	CHE CHE	422	UD Chem. Elective (or Bio) ³	4		
CHE		Course Name Quantum Chemistry ^{5,7} Critical/Creative Elective ¹	4 3 4	CHE CHE BIO	422	UD Chem. Elective (or Bio) ³ Biological Conc. of Origins	4 4 3		
CHE		Quantum Chemistry ^{5,7} Critical/Creative Elective ¹ UD Chem. Elective (or Bio) ³ Other minor requirement ⁸	4 3 4 3	CHE CHE BIO	422	UD Chem. Elective (or Bio) ³ Biological Conc. of Origins Science Seminar	4 4 3 1		
CHE		Quantum Chemistry ^{5,7} Critical/Creative Elective ¹ UD Chem. Elective (or Bio) ³ Other minor requirement ⁸	4 3 4 3	CHE CHE BIO BPH	422 444 400	UD Chem. Elective (or Bio) ³ Biological Conc. of Origins Science Seminar Other minor requirement ⁸	4 4 3 1 3		

(Superscripts if needed)

¹ Liberal Arts Core classes

² Needed if math ACS score is between 24-26

³ Chemistry track need UD, biochem need either chem or bio (can be lower)

⁴ Can be replaced with General Physics for biochemistry track majors

⁵ Required only for chemistry track

⁶ Required only for biochemistry track

⁷ Only need one for biochemistry track

⁸ Options if a student would like a minor

ADDITIONAL ITEMS RELATED TO THE MAJOR

*Students may substitute MAT 224 Analytics and Calculus III or upper-division mathematics courses for up to four (4) of the additional required credit hours. Students may also use CHE 498 or HON 498 Independent Study (must be chemistry or biology related) for up to three (3) of the additional required credit hours. Students completing the pre-engineering program may count ENS 231 Engineering Mechanics I and ENS 232 Engineering Mechanics II toward meeting the seven (7) chemistry elective hours.

The following guidelines are important. Failure to follow these guidelines may delay graduation.

- 1. Plan schedules carefully. Plan to fulfill prerequisites for future courses.
- 2. Do not alter the sequence of courses without consulting with your academic adviser as not all classes are offered every semester.
- 3. Before the enrollment period, check to make sure holds will not prevent you from registration.
- 4. Register for classes early during the registration period to secure classes.

The Four-Year Degree Plan is a suggested plan of study. This plan does not replace the *Undergraduate Catalog*. The *Undergraduate Catalog* provides the official listing of program requirements.

2024-25 Undergraduate Liberal Arts Core Requirements

I. Biblical Values	III. Broadened Perspectives			
A. Bible	A. Behavioral Sciences			
BIB 121 & 122 & 346 OR 446 7	BIB/FAM 230 OR PSY 210 OR SOC 241 OR 3			
II. Basic Skills	SWK 251			
iii. Dasic Skills	B. Natural Sciences			
A. Written Communication	BIO 100 OR BIO 105 OR BIO 110 OR BIO 3			
ENG 101 AND ENG 102 6	111 OR BIO 112 OR BIO 211 OR CHE 121 &			
B. Oral Communication	CHE 121L OR PHS 111 OR PHS 112 OR PHS			
COM 140 3	201 OR PHS 211			
C. Quantitative Reasoning	C. Arts and Humanities			
MAT 100 OR MAT 101 OR MAT 120 OR 3	HISTORY: HIS 111 OR HIS 112 OR HIS 221 3			
MAT 122 OR MAT 235	OR HIS 222 OR HUM 399A OR POL 251			
	CRITICAL AND CREATIVE WORKS: 3			
Complete course names and descriptions	ART 110 OR ART 201 OR ART 234 OR ENG			
	215 OR ENG 225 OR ENG 235 OR ENG			
for the Liberal Arts Core Requirements	299A/399A OR MUS 110 OR MUS 214 OR			
are located in the Undergraduate	PHI 243 OR PHI 245 OR PHI 246 OR THE			
Catalog.	160 OR THE 265 OR THE 299A/399A			
	HUMANITIES CAPSTONE: BIB/HUM 495 3			