

# COLLEGE OF ARTS & SCIENCES

## 2023-2024 CHEMISTRY DEGREE PLAN - CHEMISTRY EMPHASIS (TEACHING LICENSURE)

FIRST YEAR - FRESHMAN							
Fall Semester				Spring Semester			
Dept.	Crse#	Course Name	Hrs.	Dept.	Crse#	Course Name	Hrs.
MAT	120	Precalculus <sup>3</sup>	4	MAT	122	Analytics & Calculus I <sup>3</sup>	4
CHE	121	General Chemistry I	3	CHE	122	General Chemistry II <sup>3</sup>	3
CHE	121L	General Chemistry I Lab	1	CHE	122L	General Chemistry II Lab <sup>3</sup>	1
ENG	101	English Composition I <sup>1</sup>	3	ENG	102	English Composition II <sup>1</sup>	3
BPH	100	Special Topics in Science	0.5	BIB	122	Acts of the Apostles <sup>1</sup>	2
BIB	121	Life of Christ <sup>1</sup>	2	EDU	250	Professional Reflective Seminar I <sup>3</sup>	2
EDU	130	Introduction to Education	3				
			14				13
SECOND YEAR - SOPHOMORE							
Fall Semester				Spring Semester			
Dept.	Crse#	Course Name	Hrs.	Dept.	Crse#	Course Name	Hrs.
MAT	223	Analytics & Calculus II <sup>3</sup>	4			Behaviorial Science Elective <sup>1</sup>	3
PHS	211	Physics for Sci. & Engr. I <sup>3</sup>	4	PHS	212	Physics for Sci. & Engr. II <sup>3</sup>	4
CHE	321	Organic Chemistry I <sup>3</sup>	4	CHE	322	Organic Chemistry II <sup>3</sup>	4
SPE	240	Special Education Foundations <sup>3</sup>	3	PSY	306	Educational Psychology <sup>3</sup>	3
BPH	200	Special Topics in Science	0.5	BIB		Bible Course	2
BIB		Bible Course	2				
			18				16
THIRD YEAR - JUNIOR							
Fall Semester				Spring Semester			
Dept.	Crse#	Course Name	Hrs.	Dept.	Crse#	Course Name	Hrs.
HIS		History Elective	3	CHE	221	Analytical Chemistry <sup>3</sup>	4
EDU	320	Technology in the Classroom <sup>3</sup>	3			Critical/Creative Elective <sup>1</sup>	3
EDU	327	Tests and Measurement <sup>3</sup>	3	COM	140	Speech Communication <sup>1</sup>	3
RDG	321	Teaching Secondary Literacy <sup>3</sup>	3	CHE		UD Chem. Elective (or Bio) <sup>3</sup>	4
BIB	(4)346	Christ. Evid. / Found. of Faith <sup>1</sup>	3	BIO	444	Biological Conc. of Origins <sup>3</sup>	3
BPH	300	Special Topics in Science	1	BIB		Bible Course	2
			16				19
FOURTH YEAR - SENIOR							
Fall Semester				Spring Semester			
Dept.	Crse#	Course Name	Hrs.	Dept.	Crse#	Course Name	Hrs.
CHE	421	Quantum Chemistry <sup>3</sup>	4	EDU	447	Student Teaching, Secondary <sup>3</sup>	12
EDU	428	Classroom Management <sup>3</sup>	2	EDU	450	Professional Reflective Seminar III <sup>3</sup>	1
CHE		UD Chem. Elective (or Bio)	3				
EDU	431D	Tchg Methods & Literacy: Secondary Sci	3				
BIB	495	Values <sup>1,3</sup>	3				
EDU	350	Professional Reflective Seminar II <sup>3</sup>	1				
BPH	400	Science Seminar <sup>3</sup>	1	CHE	422	Chem Kinetics & Thermo <sup>3*****</sup>	4
			17				17

<sup>1</sup>Liberal Arts Core Requirement

<sup>2</sup>Liberal Arts Core Requirements in *Undergraduate Catalog*

<sup>3</sup>Course has prerequisite. See corresponding *Undergraduate Catalog*

## 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 registering.
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.**

### 2023-2024 Undergraduate Liberal Arts Core Requirements

I. Biblical Values		III. Broadened Perspectives	
<b>A. Bible</b>		<b>A. Behavioral Sciences</b>	
BIB 121 & 122 & 346 <b>OR</b> 446	7	BIB/FAM 230 <b>OR</b> PSY 210 <b>OR</b> SOC 241 <b>OR</b> SOC 251	3
<b>II. Basic Skills</b>		<b>B. Natural Sciences</b>	
<b>A. Written Communication</b>		BIO 100 <b>OR</b> BIO 105 <b>OR</b> BIO 110 <b>OR</b>	
ENG 101 <b>AND</b> ENG 102	6	BIO 111 <b>OR</b> BIO 112 <b>OR</b> BIO 211 <b>OR</b>	3
<b>B. Oral Communication</b>		CHE 121 & CHE 121L <b>OR</b> PHS 111 <b>OR</b>	
COM 140	3	PHS 112 <b>OR</b> PHS 201 <b>OR</b> PHS 211	
<b>C. Quantitative Reasoning</b>		<b>C. Arts and Humanities</b>	
MAT 100 <b>OR</b> MAT 101 <b>OR</b> MAT 120 <b>OR</b> MAT 122 <b>OR</b> MAT235	3	HISTORY: HIS 111 <b>OR</b> HIS 112 <b>OR</b> HIS 221 <b>OR</b> HIS 222 <b>OR</b> HUM 399A <b>OR</b> POL	3
Complete course names and descriptions for the Liberal Arts Core Requirements are located in the Undergraduate Catalog.		CRITICAL AND CREATIVE WORKS:	3
		ART 110 <b>OR</b> ART 201 <b>OR</b> ART 234 <b>OR</b> ENG 215 <b>OR</b> ENG 225 <b>OR</b> ENG 235 <b>OR</b> ENG 299A/399A <b>OR</b> MUS 110 <b>OR</b> MUS 214 <b>OR</b> PHI 243 <b>OR</b> PHI 245 <b>OR</b> PHI246 <b>OR</b> THE 160 <b>OR</b> THE 265 <b>OR</b> THE 299A/399A	
		HUMANITIES CAPSTONE: BIB/HUM 495	3
		<b>Total</b>	34