West Texas A&M University
Advising Services
Degree Checklist
2022-2023

(For assistance completing this form, contact Advising Services at 806-651-5300)

NAME:_____ **WT ID:**_____ **DATE:**_____

Chemistry Option III—Biochemistry
Chemistry and Physics
Chemistry and Physics Bldg. (301 26th St.) (806)651-2940

Bachelor of Science Degree
BS.BIOCHEM (104)

CORE CURRICULUM COURSES: 42 HOURS♦	HRS		
Communication (Code 10)			
ENGL 1301 Intro. to Academic Writing & Argumentation **OR** ENGL 1311 Writing About Ideas	3		
COMM 1315, 1318, or 1321	3		
Mathematics (Code 20)			
See **University Core Requirements** below	(3)		
Life and Physical Sciences (Code 30)			
See **University Core Requirements** below	(6)		
Language, Philosophy and Culture (Code 40)			
ANTH 2351, ENGL 2321*, 2326*, 2331*, 2341*, 2343*; HIST 2311, 2323, 2372; MCOM 1307; PHIL 1301, 2374; SPAN 2311*, 2312*/**, 2313*, 2315*, or 2371 **Choose 1**	3		
Creative Arts (Code 50)			
ARTS 1301, 1303, 1304; DANC 2303; MUSI 1306, 1307 (for music majors), 1310; or THRE 1310 **Choose 1**	3		
American History (60)			
HIST 1301 **or** 2381, 1302 **or** 2382, 2301 **Choose 2**	6		
Government/Political Science (Code 70)			
POSC 2305 and 2306	6		
Social and Behavioral Sciences (80)			
AGBE 2317*; COMM 2377; CRIJ 1301; ECON 2301, 2302; PSYC 2301; SOCI 1301 **Choose 1**	3		
Component Area Option (Code 90)			
See **University Core Requirements** below	(6)		
CHEMISTRY—OPTION III (BIOCHEMISTRY) MAJOR REQUIREMENTS: 79-84 HOURS **A grade of "C" or better must be earned in all courses required for major.**			
UNIVERSITY CORE REQUIREMENTS: 15 HOURS ♦			
CORE 20 MATH 1314*, 1316*, 1324*, 2412*[3], or 2413*[3]	3		
CORE 30 CHEM 1411*[3] Chemistry I	3		
CORE 30 CHEM 1412*[3] Chemistry II	3		
CORE 90 ENGL 1302* or 2311*	3		
CORE 90 CHEM 1411L[1], 1412L[1] **AND** IDS 1071[1], MATH 2412[1], or 2413[1]	3		
BIOCHEMISTRY REQUIREMENTS: 64-69 HOURS			
CHEM 2423*, 2423L Organic Chemistry I	4		
CHEM 2425*, 2425L Organic Chemistry II	4		
CHEM 3201* Chemical Literature	2		
CHEM 4103* Seminar in Chemistry	1		
CHEM 3511*, 3511L Analytical Chemistry	5		
CHEM 4323*, 4223L Biochemistry I/Biochemistry I Laboratory	5		
CHEM 4324*, 4224L Biochemistry II/Biochemistry II Laboratory	5		
BIOL 1406, 1406L **AND** BIOL 1407*, 1407L **OR** BIOL 1411, 1411L **AND** BIOL 1413, 1413L	8		
BIOL 2572*, 2572L Microbiology	5		
BIOL 3301 Genetics	3		
BIOL 3402*, 3402L Cell Biology	4		
ADVANCED BIOLOGY ELECTIVE **- BIOL 3440 or 4375 is recommended.** **- Taking both BIOL 2401 and BIOL 2402 may also be used to satisfy this requirement.**	3-4		
MATH 1316* Plane Trigonometry **OR** MATH 2412* Pre-Calculus **(if not taken to satisfy Core 20)**	0-4		
MATH 2413* Calculus I	4		
PHYS 1401*, 1401L General Physics I **AND** PHYS 1402*, 1402L General Physics II **OR** PHYS 2425*, 2425L Calculus Physics I **AND** PHYS 2426*, 2426L Calculus Physics II	8		
CHEM 4370* *(MPS 4370)* Senior Investigations (must seek faculty consent to be enrolled) **OR** MPS 4393* Math/Physical Science/Engineering Technology Honors	3		
ADVANCED ELECTIVES: 9-10 HOURS—SEE NOTE II			
ADVANCED ELECTIVES Selected from chemistry, mathematics, biology, computer science, physics, environmental science or geology to provide a minimum of 36 advanced (3000- or 4000-level) hours.	6-7		
ELECTIVES: 0-4 HOURS BY ADVISEMENT ♦			
ELECTIVES	0-7		
BACHELOR OF SCIENCE REQUIREMENTS **Covered by requirements for major.**		**OPTION**	
MINIMUM HOURS REQUIRED TO COMPLETE DEGREE	**120**		

♦ NOTE: The core curriculum must total **exactly 42 hours**; excess hours must be moved to the major as an elective or a major requirement and stay within the 120-hour requirement or approved total submitted to the Coordinating Board for degree requirements. Some majors specify particular courses to meet core curriculum requirements when options are available.

* Indicates prerequisites—see catalog for more information.

** Or an equivalent course (second year, second semester) in a foreign language.

NOTE I: Option III is for students planning careers using chemistry applied to medical science, including pre-medical students and other pre-professional students.

NOTE II: At least 36 hours of advanced work (3000- or 4000-level courses) for which tuition is paid must be earned at WTAMU. A maximum of six semester hours in religion (RELI) and six semester hours in physical education (PHED) courses can count toward a baccalaureate degree.

NOTE: This is NOT a degree plan. All undergraduate students must request an official degree plan from their academic dean's office by the time they have completed 30 credit hours.

WTAMU ADVISING SERVICES
2022-2023 Curriculum Guide

Major: Chemistry - Opt. III - Biochemistry, B.S. **Major Code:** 104

First Year

Fall		Spring	
CORE 10 - ENGL 1301 or 1311	3	CORE 90 - ENGL 1302 or 2311 (required for major)	3
CORE 20 - MATH 1316 or 2412 -2412 recommended (4th hr. counts for Core 90)	3	MATH 2413	4
BIOL 1406/1406L or 1411/1411L	4	BIOL 1407/1407L or 1413/1413L	4
CORE 30(1) - CHEM 1411/1411L -4th (lab) hour counts towards Core 90.	4	CORE 30(2) - CHEM 1412/1412L -4th (lab) hour counts towards Core 90.	4
CORE 90 - See checklist or Note 1	1		
Semester Hours	15	Semester Hours	15

Second Year

Fall		Spring	
CHEM 2423/2423L	4	CHEM 2425/2425L	4
BIOL 2572/2572L	5	BIOL 3301	3
CORE - See checklist for options (see also Note 2 below)	3	CORE - See checklist for options (see also Note 2 below)	3
CORE - See checklist for options (see also Note 2 below)	3	CORE - See checklist for options (see also Note 2 below)	3
Semester Hours	15	Semester Hours	13

Third Year

Fall		Spring	
CHEM 3511/3511L	5	Advanced BIOL Elective -See Note 4 below.	4
BIOL 3402/3402L	4	PHYS 1402/1402L or 2426/2426L	4
PHYS 1401/1401L or 2425/2425L	4	CORE - See checklist for options (see also Note 2 below)	3
Advanced Elective(1) -See checklist or Note 3 for options.	4	CORE - See checklist for options (see also Note 2 below)	3
		Advanced Elective(2) -See checklist or Note 3 for options.	3
Semester Hours	17	Semester Hours	17

Fourth Year

Fall		Spring	
CHEM 4323/4223L	5	CHEM 4324/4224L	5
CHEM 3201	2	CHEM 4103	1
CORE - See checklist for options (see also Note 2 below)	3	CHEM 4370 or MPS 4393	3
Advanced Elective(3) -See checklist or Note 3 for options.	3	CORE - See checklist for options (see also Note 2 below)	3
Elective	3		
Semester Hours	16	Semester Hours	12

Degree Total Hours 120

DISCLAIMER: This curriculum guide should be used in conjunction with the corresponding degree checklist for general planning purposes only. The degree checklist (later a student's official degree plan) should be referred to as the comprehensive list of all courses required for the degree. An official degree plan is required after completing 30 hours. Students should always seek the advice of their academic adviser before scheduling classes.

Identified Marketable Skills:

Top 3 Local Employers or Industries/Professional Programs/Possible Career Opportunities

Prerequisites/Important Sequences/Other degree Notes:

NOTE 1 - CORE 90: One of the six hours required for Core 90 may satisfied by IDS 1071 (if taken) or the fourth hour from MATH 2412 or 2413.
Note 2 - CORE: Chemistry majors are required to take specific courses for Core 20, Core 30, and Core 90. For all other categories, they may select from any available options (see degree checklist).
Note 3 - Advanced Electives: Select advanced (3000- or 4000-level) course from subjects: chemistry, mathematics, biology, computer science, physics, environmental science, or geology.
Note 4 - Advanced BIOL Elective: BIOL 3440 or 4375 is recommended. Taking **both** BIOL 2401 and 2402 may also be used to satisfy this requirement.