

**West Texas A&M University
Advising Services
Degree Checklist
2021-2022**

(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**

CORE CURRICULUM COURSES: 42 HOURS♦		HRS	CC
Communication (Code 10)			
ENGL 1301 Introduction to Academic Writing and Argumentation		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, 1302, 2301, 2381, 2382	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]	CC	3	
CORE 30 CHEM 1411*[3] Chemistry I	CC	3	
CORE 30 CHEM 1412*[3] Chemistry II	CC	3	
CORE 90 ENGL 1302* or 2311*	CC	3	
CORE 90 CHEM 1411L[1], 1412L[1] AND IDS 1071[1], MATH 2412[1], or 2413[1]	CC	3	
BIOCHEMISTRY REQUIREMENTS: 64-69 HOURS			
CHEM 2423*, 2423L Organic Chemistry I	CC	4	
CHEM 2425*, 2425L Organic Chemistry II	CC	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	CC	8	
BIOL 2572*, 2572L Microbiology		5	

**Bachelor of Science Degree
BS.BIOCHEM (104)**

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)	CC	0-4	
MATH 2413* Calculus I	CC	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	CC	8	
CHEM 4370* (MPS 4370) Senior Investigations 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 39 advanced (3000- or 4000-level) hours.		9-10	
ELECTIVES: 0-4 HOURS BY ADVISEMENT ♦			
ELECTIVES		0-4	
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

2021-2022 Curriculum Guide

Major: Chemistry - Opt. III - Biochemistry, B.S.

Major Code: 104

First Year	
Fall	Spring
CORE 10 - ENGL 1301 3	CORE 90 - ENGL 1302 or 2311 3 <small>(required for major)</small>
CORE 20 - MATH 1316 or 2412 3 <small>-2412 recommended (4th hr. counts for Core 90)</small>	MATH 2413 4
BIOL 1406/1406L or 1411/1411L 4	BIOL 1407/1407L or 1413/1413L 4
CORE 30(1) - CHEM 1411/1411L 4 <small>-4th (lab) hour counts towards Core 90.</small>	CORE 30(2) - CHEM 1412/1412L 4 <small>-4th (lab) hour counts towards Core 90.</small>
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 3 <small>(see also Note 2 below)</small>	CORE - See checklist for options 3 <small>(see also Note 2 below)</small>
CORE - See checklist for options 3 <small>(see also Note 2 below)</small>	CORE - See checklist for options 3 <small>(see also Note 2 below)</small>
Semester Hours 15	Semester Hours 13

Third Year	
Fall	Spring
CHEM 3511/3511L 5	Advanced BIOL Elective 4 <small>-See Note 4 below.</small>
BIOL 3402/3402L 4	PHYS 1402/1402L or 2426/2426L 4
PHYS 1401/1401L or 2425/2425L 4	CORE - See checklist for options 3 <small>(see also Note 2 below)</small>
Advanced Elective(1) 4 <small>-See checklist or Note 3 for options.</small>	CORE - See checklist for options 3 <small>(see also Note 2 below)</small>
	Advanced Elective(2) 3 <small>-See checklist or Note 3 for options.</small>
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 3 <small>(see also Note 2 below)</small>	CHEM 4370 or MPS 4393 3
Advanced Elective(3) 3 <small>-See checklist or Note 3 for options.</small>	CORE - See checklist for options 3 <small>(see also Note 2 below)</small>
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.