

West Texas A&M University

Advising Services

Degree Checklist

2024-2025

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

Name: _____ WT ID: _____ Date: _____

Chemistry B.A./B.S.	
Department of Chemistry and Physics (Chemistry & Physics Bldg. - 301 26th St.) (651-2940)	
Degree: Bachelor of Arts (B.A.) or Bachelor of Science (B.S.) May be either depending on option selected; see the "Requirements for Baccalaureate Degrees" section of the Catalog.	
Major: Chemistry Major Code: 104	
Students choose one option:	
<ul style="list-style-type: none"> • Option I: Professional Chemistry • Option II: General Chemistry • Option III: Biochemistry 	BA/BS.CHEM.PROF BA/BS.CHEM BA/BS.BIOCHEM
University Core Curriculum Requirements (42 hours)	Semester Credit Hours
Core 10 - Communication (3 hours from ENGL options) • ENGL 1301 or ENGL 1311	3
Core 10 - Communication (3 hours from COMM options) • COMM 1315; COMM 1318; or COMM 1321	3
Core 20 - Mathematics (3 hours) • See Major-Specific University Core Requirements below	
Core 30 - Life and Physical Sciences (6 hours) • See Major-Specific University Core Requirements below	
Core 40 - Language, Philosophy and Culture (3 hours) • ANTH 2351; ENGL 2321; ENGL 2326; ENGL 2331; ENGL 2341; ENGL 2343; HIST 2311; HIST 2323; HIST 2372; MCOM 1307; PHIL 1301; PHIL 2374; SPAN 2311; SPAN 2312 [or an equivalent course (second year or intermediate level) in a foreign language]; SPAN 2313; SPAN 2315; or SPAN 2371	3
Core 50 - Creative Arts (3 hours) • ARTS 1301; ARTS 1303; ARTS 1304; DANC 2303; MUSI 1306; MUSI 1307; MUSI 1310; or THRE 1310	3
Core 60 - American History (6 hours) • HIST 1301; HIST 1302; HIST 2301; HIST 2381; or HIST 2382	3
Core 70 - Government / Political Science (6 hours) • POSC 2305 and POSC 2306	3
Core 80 - Social and Behavioral Sciences (3 hours) • AGBE 2317; COMM 2377; CRIJ 1301; ECON 2301; ECON 2302; GEOG 1302; PSYC 2301; or SOCI 1301	3
Core 90 - Component Area Option (6 hours or fewer; may depend on major requirements) • See Major-Specific University Core Requirements below	

Chemistry Major Requirements (51-63 hours)			
***** C or better required in all courses in the Major Requirements *****			
Major-Specific University Core Requirements (15 hours)			
The following courses are required for their specific Core areas <u>instead of</u> the courses listed above in the general University Core Curriculum.			
Core 20 - Mathematics (3 hours)			
<ul style="list-style-type: none"> MATH 1314 - College Algebra or MATH 1316 - Plane Trigonometry or MATH 1324 - Mathematics for Business and Economics I or MATH 2412 - Pre-Calculus Math or MATH 2413 - Calculus I (Fourth hour of MATH 2412 or MATH 2413, if taken, will count towards Core 90.)	3		
Core 30 - Life and Physical Sciences (6 hours)			
<ul style="list-style-type: none"> CHEM 1411, 1411L - Chemistry I CHEM 1412, 1412L - Chemistry II (Lab hours will count towards Core 90.)	3	3	
Core 90 - Component Area Option (6 hours)			
<ul style="list-style-type: none"> ENGL 1302 - Academic Writing and Research or ENGL 2311 - Introduction to Professional and Technical Communication Lab hours from CHEM 1411L/1412L and fourth hour from MATH 2412 or MATH 2413 (if taken) or from IDS 1071 	3		
	1	1	1
Required Courses for Option			
Complete one option: (I) Professional Chemistry, (II) General Chemistry, or (III) Biochemistry			
Option I: Professional Chemistry			
This option follows course recommendations of the American Chemical Society and prepares students for positions in industry, government and education. It is recommended for students planning to do graduate study in chemistry or seeking employment as chemists in industry.			
CHEM 2423 - Organic Chemistry I	4		
CHEM 2425 - Organic Chemistry II	4		
CHEM 3511 - Analytical Chemistry	5		
CHEM 3421 - Physical Chemistry I	4		
CHEM 3422 - Physical Chemistry II	4		
CHEM 3201 - Chemical Literature	2		
CHEM 4103 - Seminar in Chemistry	1		
CHEM 4411 - Instrumental Analysis	4		
CHEM 4323 - Biochemistry I	3		
CHEM 4223L - Biochemistry I Laboratory	2		
CHEM 4431 - Inorganic Chemistry	4		
CHEM 4397 - Undergraduate Research	3		
Advanced Elective in Chemistry (3 hours)	3		
MATH 1316 - Plane Trigonometry	3-4		
or MATH 2412 - Pre-Calculus Math	3-4		
(if not taken to satisfy University core mathematics requirement)	3-4		
MATH 2413 - Calculus I	4		
MATH 2414 - Calculus II	4		
MATH 3340 - Calculus III	3		
PHYS 2425 - Calculus Physics I	4		

PHYS 2426 - Calculus Physics II	4
CHEM 4370 - Senior Investigations or MPS 4393 - Math/Physical Science/Engineering Honors	3
Additional advanced hours to provide a minimum of 36 hours selected from: Chemistry, physics or mathematics.	
Option II: General Chemistry	
This option provides a background for students whose career goals are to enter education or chemistry-related fields.	
CHEM 2423 - Organic Chemistry I	4
CHEM 2425 - Organic Chemistry II	4
CHEM 3201 - Chemical Literature	2
CHEM 4103 - Seminar in Chemistry	1
CHEM 3511 - Analytical Chemistry	5
MATH 1316 - Plane Trigonometry or MATH 2412 - Pre-Calculus Math	3-4
MATH 2413 - Calculus I	4
MATH 2414 - Calculus II	4
PHYS 1401 - General Physics I or PHYS 2425 - Calculus Physics I	4
PHYS 1402 - General Physics II or PHYS 2426 - Calculus Physics II	4
CHEM 4370 - Senior Investigations or MPS 4393 - Math/Physical Science/Engineering Honors	3
Three courses from: CHEM 3421 - Physical Chemistry I CHEM 3422 - Physical Chemistry II CHEM 4411 - Instrumental Analysis CHEM 4323 - Biochemistry I and CHEM 4223L Biochemistry I Laboratory CHEM 4324 - Biochemistry II and CHEM 4224L - Biochemistry II Laboratory CHEM 4431 - Inorganic Chemistry	12-14
Additional advanced hours to provide a minimum of 36 hours selected from: Chemistry, mathematics, biology, computer science, physics, environmental science or geology.	15-17
Option III: Biochemistry	
This option is for students planning careers using chemistry applied to medical science, including pre-medical students and other pre-professional students.	
CHEM 2423 - Organic Chemistry I	4
CHEM 2425 - Organic Chemistry II	4
CHEM 3201 - Chemical Literature	2
CHEM 4103 - Seminar in Chemistry	1
CHEM 3511 - Analytical Chemistry	5
CHEM 4323 - Biochemistry I	3
CHEM 4223L - Biochemistry I Laboratory	2
CHEM 4324 - Biochemistry II	3

CHEM 4224L - Biochemistry II Laboratory	2
BIOL 1406 - Basic and Contemporary Biology I or BIOL 1413 - Zoology	4
BIOL 1407 - Basic and Contemporary Biology II or BIOL 1411 - Botany	4
BIOL 2572 - Microbiology	5
BIOL 3301 - Genetics	3
BIOL 3402 - Cell Biology	4
3-4 Hours Advanced Biology Elective or CHEM 3421. (BIOL 3440 or BIOL 4375 are recommended.) (Taking both BIOL 2401 and 2402 may also be used to satisfy this requirement.)	3-4
MATH 1316 - Plane Trigonometry or MATH 2412 - Pre-Calculus Math	3-4
MATH 2413 - Calculus I	4
PHYS 1401 - General Physics I or PHYS 2425 - Calculus Physics I	4
PHYS 1402 - General Physics II or PHYS 2426 - Calculus Physics II	4
CHEM 4370 - Senior Investigations or MPS 4393 - Math/Physical Science/Engineering Honors (MATH 2414 - Calculus II is recommended)	3
Additional advanced hours to provide a minimum of 36 hours selected from: Chemistry, mathematics, biology, computer science, physics, environmental science or geology.	9-10
B.A./B.S. Requirements (0-12 hours)	
Complete the requirements for your specific degree.	
B.A. Degree In addition to the core curriculum, a minimum of 12 hours as follows: <ul style="list-style-type: none"> At least six hours of foreign language, and Six hours chosen from art, communication studies, dance, English, history, media communications, modern languages, music, philosophy, religion, and theatre. or B.S. Degree Requirements are satisfied by the Major Requirements.	6 6 or 0
Electives (See NOTE)	
***** C or better required in all courses in the Major Subject *****	
Electives NOTE: As needed to provide a total of 120 hours, of which at least 36 must be advanced.	

Total hours required to complete degree: 120 hours

Depending on transfer credits and other substitutions/waivers, student may need to take additional electives as needed to total a minimum of 120 hours or the minimum total hours required for this degree, of which at least 36 must be advanced (3000/4000 level) and earned at WTAMU.

Prerequisites

Some courses may require prerequisites. See the University Catalog for more information.

Advising Notes

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. In addition, this document is used as an advising resource. For official information, please refer to the University Catalog.