West Texas A&M University
Advising Services
Degree Checklist
2026-2027
(For assistance completing this form, contact Advising Services at 806-651-5300)

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

Chemistry Option I—Professional Chemistry
Department of Natural Sciences
NSB 106 (806) 651-2940

Bachelor of Science Degree
BS.CHEM.PROF (104)

CORE CURRICULUM COURSES: 42 HOURS	HRS	
Communication (Core 10)		
ENGL 1301 Intro. to Academic Writing & Argumentation **OR** ENGL 1311 Writing About Ideas	3	
COMM 1315, 1318, or 1321	3	
Mathematics (Core 20)		
See **University Core Requirements** below	(3)	
Life and Physical Sciences (Core 30)		
See **University Core Requirements** below	(6)	
Language, Philosophy and Culture (Core 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 (Core 50)		
ARTS 1301, 1303, 1304; DANC 2303; MUSI 1306, 1307 (for music majors), 1310; or THRE 1310 **Choose 1**	3	
American History (Core 60)		
HIST 1301, 1302, 2301, 2381, or 2382 **Choose 2**	6	
Government/Political Science (Core 70)		
POSC 2305 and 2306	6	
Social and Behavioral Sciences (Core 80)		
AGBE 2317*; COMM 2377; CRIJ 1301; ECON 2301, 2302; GEOG 1302; PSYC 2301; SOCI 1301 **Choose 1**	3	
Component Area Option (Core 90)		
See **University Core Requirements** below	(6)	
CHEMISTRY—OPTION I (PROFESSIONAL CHEMISTRY) MAJOR REQUIREMENTS: 80-84 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	
PROF. CHEMISTRY REQUIREMENTS (OPTION 1): 65-69 HOURS		
CHEM 2423*, 2423L Organic Chemistry I	4	
CHEM 2425*, 2425L Organic Chemistry II	4	
CHEM 3201* Chemical Literature	2	
CHEM 3421*, 3421L Physical Chemistry I	4	
CHEM 3422*, 3422L Physical Chemistry II	4	
CHEM 3511*, 3511L Analytical Chemistry	5	
CHEM 4103* Seminar in Chemistry	1	
CHEM 4323* Biochemistry I CHEM 4223L* Biochemistry I Laboratory	5	
CHEM 4397* Undergraduate Research	3	
CHEM 4411*, 4411L Instrumental Analysis	4	
CHEM 4431*, 4431L Inorganic Chemistry	4	
ADVANCED CHEMISTRY ELECTIVE	3	
MATH 1316* Plane Trigonometry **OR** MATH 2412* Pre-Calculus **(if not taken to satisfy Core 20)**	0-4	
MATH 2413* Calculus I	4	
MATH 2414* Calculus II	4	
MATH 3340* Calculus III	3	
PHYS 2425*, 2425L Calculus Physics I	4	
PHYS 2426*, 2426L Calculus Physics II	4	
CHEM 4370* *(MPS 4370)* Senior Investigations (must seek faculty consent to be enrolled) **OR** MPS 4393* Math/Physical Science/Engineering Technology Honors	3	
BACHELOR OF SCIENCE REQUIREMENTS **Covered by requirements for major.**	**OPTION**	
ELECTIVES: 9-13 HOURS BY ADVISEMENT ♦		
ELECTIVES	9-13	
MINIMUM HOURS REQUIRED TO COMPLETE DEGREE	**120**	

* Indicates prerequisites—see catalog for more information.
** Or an equivalent course (second year, second semester) in a foreign language.

NOTE I: Option I 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.

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 – 2026-2027 Curriculum Guide

Major: Chemistry, Opt. I – Professional Chemistry, B.S. BS.CHEM.PROF (104)

Year 1: Fall		Year 1: Spring	
CORE 30 (Life & Phys. Sci.) – CHEM 1411/1411L Chemistry I **(4th hour goes toward Core 90)**	4	CORE 30 (Life & Phys. Sci.) – CHEM 1412/1412L Chemistry II **(4th hour goes toward Core 90)**	4
CORE 10 (Communication) – ENGL 1301 or 1311	3	CORE 60 (American History) – See checklist for options[1]	3
CORE 20 (Mathematics) – MATH 1316 or 2412 (if MATH 1314 is completed)	3-4	CORE 90 (Comp. Area Opt.) – ENGL 1302 or 2311	3
CORE 70 (Govt./Political Sci.) – POSC 2306	3	MATH 2413 Calculus I	4
CORE 90 (Comp. Area Opt.) – IDS 1071	1		
Total:	14-15	Total:	14
Year 2: Fall		**Year 2: Spring**	
CORE 10 (Communication) – COMM 1315, 1318 or 1321	3	CORE 50 (Creative Arts) – See checklist for options[1]	3
CORE 70 (Govt./Political Sci.) – POSC 2305	3	CORE 60 (American History) – See checklist for options[1]	3
CHEM 2423/2423L Organic Chemistry I	4	CHEM 2425/2425L Organic Chemistry II	4
MATH 2414 Calculus II	4	MATH 3340 Calculus III	3
Total:	14	Total:	13
Year 3: Fall		**Year 3: Spring**	
CORE 40 (Lang, Phil. & Cult.) – See checklist for options[1]	3	CORE 80 (Soc/Behav. Sci.) – See checklist for options[1]	3
CHEM 3421/3421L Physical Chemistry I	4	CHEM 3422/3422L Physical Chemistry II	4
CHEM 3511/3511L Analytical Chemistry	5	Advanced CHEM Elective (3000/4000 level)	3
PHYS 2425/2425L Calculus Physics I	4	PHYS 2426/2426L Calculus Physics II	4
Total:	16	Total:	14
Year 4: Fall		**Year 4: Spring**	
CHEM 4323/4223L Biochemistry I	5	CHEM 3201 Chemical Literature	2
CHEM 4397 Undergraduate Research	3	CHEM 4103 Seminar in Chemistry	1
CHEM 4431/4431L Inorganic Chemistry	4	CHEM 4370 Senior Investigations (must see faculty consent) **or** MPS 4393 Math/Physical Science/ET Honors	3
Elective (by advisement)	3	CHEM 4411/4411L Instrumental Analysis	4
Elective (by advisement)	3	Elective (by advisement)	3
		Elective (by advisement)	3-4
Total:	18	Total:	16-17

[1] **CORE:** Professional 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). Apart from the major-specific core requirements, there is no set order in which core courses must be taken.

[2] **CORE 90:** One of the six hours required for Core 90 may be satisfied by IDS 1071 (if taken) or the fourth hour from MATH 2412 or 2413.

Identified Marketable Skills	**Top Three Local Employers or Industries/Professional Programs/Possible Career Opportunities**
Procedure development Chemical analysis Data analysis	Bell Helicopter Pantex Servitech

Additional notes:

- 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.
- 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.

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.