West Texas A&M University Advising Services Degree Checklist 2020-2021

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

NAME:_____

WT ID:

DATE:_____

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

CORE CURRICULUM COURSES: 42 HOURS +	HRS	
Communication (Core 10)		
ENGL 1301 Introduction to Academic Writing and Argumentation	3	
COMM 1315, 1318, or 1321	3	
Mathematics (Core 20)	-	
See University Core Requirements below	(3)	
Life and Physical Sciences (Core 30)	(0)	i
See University Core Requirements below Language, Philosophy and Culture (Core 40)	(6)	
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 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; PSYC 2301; SOCI 1301 Choose 1	3	
Component Area Option (Core 90)	(1)	i
See University Core Requirements below CHEMISTRY—OPTION I (PROFESSIONAL CHEMISTRY)	(6)	
REQUIREMENTS: 80-84 HOURS A grade of "C" or better must be earned in all courses required UNIVERSITY CORE REQUIREMENTS: 15 HOURS +	for ma	jor.
<u>CORE 20</u> MATH 1314*, 1316*, 1324*, 2412*[3], or 2413*[3]	3	
<u>CORE 30</u> CHEM 1411*[3] Chemistry I	3	
<u>CORE 30</u> CHEM 1412*[3] Chemistry II	3	
CORE 90 ENGL 1302* or 2311*	3	
<u>CORE 90</u> CHEM 1411L[1], 1412L[1] AND IDS 1071[1], MATH 2412[1], or 2413[1]	3	
PROF. CHEMISTRY REQUIREMENTS (OPTION 1): 65-69	HOUR	RS
CHEM 2423*, 2423L Organic Chemistry I	4	
CHEM 2425*, 2425L Organic Chemistry II	4	
CHEM 3511*, 3511L Analytical Chemistry	5	
CHEM 3421*, 3421L Physical Chemistry I	4	
CHEM 3422*, 3422L Physical Chemistry II	4	
CHEM 4411*, 4411L Instrumental Analysis	4	
CHEM 4323* Biochemistry I CHEM 4223L* Biochemistry I Laboratory	5	
CHEM 4431*, 4431L Inorganic Chemistry	4	

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

CHEM 4397* Undergraduate Research3CHEM 3201* Chemical Literature2CHEM 4103* Seminar in Chemistry1ADVANCED CHEMISTRY ELECTIVE3MATH 1316* Plane Trigonometry OR MATH 2412* Pre-Calculus (if not taken to satisfy Core 20)0-4MATH 2412* Pre-Calculus II4MATH 2413* Calculus II4MATH 3340* Calculus III3PHYS 2425*, 2425L Calculus Physics I4PHYS 2426*, 2426L Calculus Physics II4CHEM 4370* (MPS 4370) Senior Investigations OR MPS 4393* Math/Physical Science/Engineering Technology Honors3 BACHELOR OF SCIENCE REQUIREMENTS Covered by requirements for major. OPTIONELECTIVES 9-139-13MINIMUM HOURS REQUIRED TO COMPLETE DEGREE 120		1	1		
CHEM 4103* Seminar in Chemistry 1 ADVANCED CHEMISTRY ELECTIVE 3 MATH 1316* Plane Trigonometry OR 0-4 MATH 2412* Pre-Calculus 0-4 (if not taken to satisfy Core 20) 0-4 MATH 2413* Calculus I 4 MATH 2414* Calculus II 3 PHYS 2425*, 2425L Calculus Physics I 4 PHYS 2425*, 2426L Calculus Physics II 4 CHEM 4370* (MPS 4370) Senior Investigations OR 3 MPS 4393* Math/Physical Science/Engineering 3 Technology Honors 0 BACHELOR OF SCIENCE REQUIREMENTS OPTION ELECTIVES: 9-13 HOURS BY ADVISEMENT + 9 -13	CHEM 4397* Undergraduate Research	3			
ADVANCED CHEMISTRY ELECTIVE 3 MATH 1316* Plane Trigonometry OR 0-4 MATH 2412* Pre-Calculus 0-4 (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 CHEM 4370* (MPS 4370) Senior Investigations OR 3 MPS 4393* Math/Physical Science/Engineering 3 Technology Honors 0-1 BACHELOR OF SCIENCE REQUIREMENTS OPTION ELECTIVES: 9-13 HOURS BY ADVISEMENT • 9-13	CHEM 3201* Chemical Literature	2			
MATH 1316* Plane Trigonometry OR MATH 2412* Pre-Calculus (if not taken to satisfy Core 20) 0-4 MATH 2413* Calculus I 4 MATH 2413* Calculus II 4 MATH 2414* Calculus II 3 PHYS 2425*, 2425L Calculus Physics I 4 PHYS 2426*, 2426L Calculus Physics II 4 CHEM 4370* (MPS 4370) Senior Investigations 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 + 9-13	CHEM 4103* Seminar in Chemistry	1			
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 CHEM 4370* (MPS 4370) Senior Investigations 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 ◆ 9-13	ADVANCED CHEMISTRY ELECTIVE	3			
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 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 ◆ 9-13	MATH 2412* Pre-Calculus	0-4			
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 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	MATH 2413* Calculus I	4			
PHYS 2425*, 2425L Calculus Physics I 4 PHYS 2426*, 2426L Calculus Physics II 4 CHEM 4370* (MPS 4370) Senior Investigations 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 ◆ 9-13	MATH 2414* Calculus II	4			
PHYS 2426*, 2426L Calculus Physics II 4 CHEM 4370* (MPS 4370) Senior Investigations 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	MATH 3340* Calculus III	3			
CHEM 4370* (MPS 4370) Senior Investigations OR 3 MPS 4393* Math/Physical Science/Engineering 3 BACHELOR OF SCIENCE REQUIREMENTS OPTION Covered by requirements for major. PTION ELECTIVES: 9-13 HOURS BY ADVISEMENT • 9-13	PHYS 2425*, 2425L Calculus Physics I	4			
MPS 4393* Math/Physical Science/Engineering 3 Technology Honors 3 BACHELOR OF SCIENCE REQUIREMENTS OPTION ELECTIVES: 9-13 HOURS BY ADVISEMENT ◆ ELECTIVES 9-13 9-13	PHYS 2426*, 2426L Calculus Physics II	4			
Covered by requirements for major. OP HON ELECTIVES: 9-13 HOURS BY ADVISEMENT ◆ ELECTIVES 9-13	MPS 4393* Math/Physical Science/Engineering	3			
ELECTIVES 9-13		OP	TION		
9-13	ELECTIVES: 9-13 HOURS BY ADVISEMENT +				
MINIMUM HOURS REQUIRED TO COMPLETE DEGREE 120	ELECTIVES	9-13			
	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 120hour 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: 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.

NOTE II: At least 39 hours of advanced work (3000- or 4000-level courses) for which tuition is paid must be earned at WTAMU, and 30 of the final 36 hours counted toward the degree must be earned at WTAMU. A maximum of six semester hours in religion and six semester hours in physical education (PHED) courses can count toward a baccalaureate degree.

Note: This is NOT a degree plan. Upon completing 30 credit hours, students must request an official degree plan (using the online <u>Degree Plan Request</u> form) in order to progress. Students who have questions about their degree plan should contact the office of the dean of the Paul Engler College of Agriculture and Natural Sciences, which is located in the Happy State Bank Academic & Research Building, Suite 262 (phone 806-651-3570).

WTAMU ADVISING SERVICES 2020-2021 Curriculum Guide

Major: Chemistry	- Opt. I - Professional	Chemistry, B.S.
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First Year			
Fall		Spring	
CORE 10 - ENGL 1301	3	CORE 90 - ENGL 1302 or 2311	3
CORE 20 - MATH 1316 or 2412	3	MATH 2413	4
CHEM 1411/1411L	4	CORE 30(1) - CHEM 1412/1412L	4
		-4th (lab hour counts towards Core 90.	
CORE - See checklist for options	3	CORE - See checklist for options	3
(see also Note 1 below)		(see also Note 1 below)	
CORE 90 - See checklist or Note 2 1		CORE - See checklist for options 3	
CORE 90 - See checklist or Note 2	-		
CORE 90 - See checklist or Note 2		(see also Note 1 below)	
CORE 90 - See checklist or Note 2		(see also Note 1 below)	
CORE 90 - See checklist or Note 2	14	(see also Note 1 below) Semester Hours	17
Semester Hours	14		17
Semester Hours Third Year	14		17
Semester Hours Third Year Fall	14	Semester Hours	17
Semester Hours Third Year Fall CHEM 3511/3511L	5	Semester Hours Spring CHEM 3422/3422L	4
Semester Hours Third Year Fall CHEM 3511/3511L		Semester Hours Spring	
Semester Hours Third Year Fall CHEM 3511/3511L	5	Semester Hours Spring CHEM 3422/3422L	4
Semester Hours Third Year Fall CHEM 3511/3511L CHEM 3421/3421L	5	Semester Hours Spring CHEM 3422/3422L PHYS 2426/2426L	4

Major	Code:	104
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Second Year			
Fall		Spring	
MATH 2414	4	CHEM 2425/2425L	4
CHEM 2423/2423L	4	MATH 3340	3
CORE - See checklist for options	3	CORE - See checklist for options	3
(see also Note 1 below)		(see also Note 1 below)	
CORE - See checklist for options	3	CORE - See checklist for options	3
(see also Note 1 below)		(see also Note 1 below)	
Semester Hours	14	Semester Hours	13

Fourth Year			
Fall		Spring	
CHEM 4323/4223L	5	CHEM 3422/3422L	4
CHEM 4431/4431L	4	PHYS 2426/2426L	4
СНЕМ 4397	3	Advanced CHEM Elective	3
CHEM 4103	1	CORE - See checklist for options (see also Note 1 below)	3
Elective (by advisement)	3		
Semester Hours	16	Semester Hours	14

Degree Total Hours 120

Semester Hours

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.

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Identified Marketable Skills:		

16

Semester Hours

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

Prerequisites/Important Sequences/Other degree Notes:

Note 1 - 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). Apart from the major-specific core requirements, there is no set order in which core courses must be taken. Note 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.