

BACHELOR OF SCIENCE WITH A MAJOR IN CHEMISTRY (BS)

Degree Requirements

CIP: 40.0501.00

Hours Required

120 semester credit hours (SCH): 45 hours must be advanced, with fulfillment of degree requirements as specified in the "Requirements for Graduation (<https://catalog.tamui.edu/undergraduate-information/academic-regulations/>)" section of this catalog.

Requirements

Code	Title	Semester Credit Hours
[University Core Curriculum] (https://catalog.tamui.edu/appendix-a-core-curriculum-optional-course-information/)		
Select 42 SCH as outlined in the suggested plans and as specified in the "Requirements for Graduation"		42
Math Elective		
MATH 2414	Calculus II	4
MATH 3330	Ordinary Diff Equations	3
Select 1 SCH surplus from core		1
Major		
CHEM 1311 & CHEM 1111	General Chemistry I and General Chemistry I-Lab (take as part of the core)	
CHEM 1412	General Chemistry II	4
CHEM 2423	Organic Chemistry I	4
CHEM 2425	Organic Chemistry II	4
CHEM 3405	Analytical Chemistry	4
CHEM 3431	Physical Chemistry I	4
CHEM 3451	Biochemistry I	4
CHEM 4120	Chemistry Seminar (taken twice)	2
CHEM 4198	Investigations in Chemistry	1
CHEM 4411	Inorganic Chemistry	4
Select 12 SCH from any additional CHEM course at the 3000-4000 level		12
Minor		
Select a minimum of 18 SCH from one discipline at least twelve of which must be at the 3000-4000 level. See Appendix C. Instead of a minor, students may complete 18 SCH of electives, 12 SCH of which must be at the 3000-4000 level, from any discipline, except the major field, outside the College of Nursing and Health Sciences		18
Supporting Sciences		
PHYS 1301 & PHYS 1101 or PHYS 2325/2125	General Physics I and General Physics I Lab University Physics I	4
PHYS 1302 & PHYS 1102	General Physics II and General Physics II Lab	4

or PHYS 2326/2126	University Physics II	
BIOL 1106	Principles of Biology I-Lab	1
BIOL 1306	Principles of Biology I (taken as part of the core.)	
Total Semester Credit Hours		120

* CHEM 4120 may be repeated for up to 2 SCH of credit within the degree program. CHEM 4198-CHEM 4498 may be repeated but not to exceed five semester hours for chemistry majors and not to exceed four semester hours for all other students.

Four-Year Degree Plan

Following is a suggested four-year degree plan. Students are encouraged to see their advisor each semester for help with program decisions and enrollment; responsible for reviewing the **Program of Study Requirements**, meeting all course prerequisites, and **writing intensive course (WIN)** requirements for graduation. See Academic Regulations-Undergraduate online. (<https://catalog.tamui.edu/undergraduate-information/academic-regulations/>)

Freshman

Fall		Semester Credit Hours
BIOL 1306	Principles of Biology I	3
BIOL 1106	Principles of Biology I-Lab	1
CHEM 1311	General Chemistry I	3
CHEM 1111	General Chemistry I-Lab	1
ENGL 1301	English Composition I	3
HIST 1301	The US to 1877	3
UNIV 1201	Learn a Global Context I	2
Semester Credit Hours		16

Spring

CHEM 1412	General Chemistry II	4
ENGL 1302	English Composition II	3
MATH 2413	Calculus I	4
UNIV 1302	Signature Course	3
Semester Credit Hours		14

Sophomore

Fall		Semester Credit Hours
CHEM 2423	Organic Chemistry I	4
PHYS 1301 or PHYS 2325	General Physics I or University Physics I	3
PHYS 1101 or PHYS 2125	General Physics I Lab or University Physics I Lab	1
HIST 1302	The US Since 1877	3
PSCI 2305	American National Government	3
Social/Behavioral Science		3
Semester Credit Hours		17

Spring

CHEM 2425	Organic Chemistry II	4
PHYS 1302 or PHYS 2326	General Physics II or University Physics II	3

PHYS 1102	General Physics II Lab	1
or PHYS 2126	or University Physics II Lab	
MATH 2414	Calculus II	4
PSCI 2306	American State Government	3
Semester Credit Hours		15

Junior

Fall

CHEM 3405	Analytical Chemistry	4
CHEM 3451	Biochemistry I	4
Creative Arts		3
Minor/General Elective		3
Semester Credit Hours		14

Spring

CHEM 4198	Investigations in Chemistry	1
CHEM - Advanced Chemistry Elective ¹		4
MATH 3330	Ordinary Diff Equations	3
Minor/General Elective		3
Language, Philosophy & Culture		3
Semester Credit Hours		14

Senior

Fall

CHEM 3431	Physical Chemistry I	4
CHEM 4120	Chemistry Seminar	1
CHEM 4411	Inorganic Chemistry	4
Advanced Minor/General Elective		3
Advanced Minor/General Elective		3
Semester Credit Hours		15

Spring

CHEM 4120	Chemistry Seminar	1
CHEM - Advanced Chemistry Elective ¹		4
CHEM - Advanced Chemistry Elective ¹		4
Advanced Minor/General Elective		3
Advanced Minor/General Elective		3
Semester Credit Hours		15

Total Semester Credit Hours **120**

¹ Advanced Chemistry electives, select 12 SCH from any 3000-4000 level course.

Actual degree plans may vary depending on availability of courses in a given semester.

Some courses may require prerequisites not listed.