

# BACHELOR OF SCIENCE WITH A MAJOR IN CHEMISTRY (BS)

## Degree Requirements 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] ( <a href="https://catalog.tamui.edu/appendix-a-core-curriculum-optional-course-information/">https://catalog.tamui.edu/appendix-a-core-curriculum-optional-course-information/</a> )		
Select 42 SCH as outlined in the suggested plans and as specified in the "Requirements for Graduation"		42
<b>Math Elective</b>		
MATH 2414	Calculus II	4
MATH 3330	Ordinary Diff Equations	3
Select 1 SCH surplus from core		1
<b>Major</b>		
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
<b>Minor</b>		
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
<b>Supporting Sciences</b>		
PHYS 1301 & PHYS 1101 or PHYS 2325/2125	General Physics I and General Physics I Lab or University Physics I	4
PHYS 1302 & PHYS 1102 or PHYS 2326/2126	General Physics II and General Physics II Lab or University Physics II	4

BIOL 1106	Principles of Biology I-Lab	1
BIOL 1306	Principles of Biology I (taken as part of the core.)	
<b>Total Semester Credit Hours</b>		<b>120</b>

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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
<b>Semester Credit Hours</b>		<b>16</b>

### Spring

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

### 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
<b>Semester Credit Hours</b>		<b>17</b>

### Spring

CHEM 2425	Organic Chemistry II	4
PHYS 1302 or PHYS 2326	General Physics II or University Physics II	3
PHYS 1102 or PHYS 2126	General Physics II Lab or University Physics II Lab	1



MATH 2414	Calculus II	4
PSCI 2306	American State Government	3
<b>Semester Credit Hours</b>		<b>15</b>

**Junior**

**Fall**

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

**Spring**

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

**Senior**

**Fall**

CHEM 3431	Physical Chemistry I	4
CHEM 4120	Chemistry Seminar	1
CHEM 4411	Inorganic Chemistry	4
Advance Minor Elective		3
Advance Minor Elective		3
<b>Semester Credit Hours</b>		<b>15</b>

**Spring**

CHEM 4120	Chemistry Seminar	1
CHEM - Advanced Chemistry Elective <sup>1</sup>		4
CHEM - Advanced Chemistry Elective <sup>1</sup>		4
Advance Minor Elective		3
Advance Minor Elective		3
<b>Semester Credit Hours</b>		<b>15</b>

**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.*