BACHELOR OF SCIENCE-CHEMISTRY

The A&M-Texarkana chemistry program offers a Bachelor of Science degree (B.S.) in Chemistry. It offers courses for fulfilling undergraduate degree requirements in two concentrations: (a) general chemistry and (b) secondary teacher certification. The B.S. in Chemistry curriculum provides the necessary background and understanding for students to tackle any job related to chemistry. In addition, the program supports other disciplines, such as biology, biotechnology, nursing, kinesiology, and criminal justice, where the subject matter depends, in part, on the knowledge of the principles of chemistry. The courses offered by the chemistry program will serve as preparation for students that are contemplating post-graduate studies in chemistry or in other disciplines such as medicine, pharmacy, or veterinary medicine.

Careers in Chemistry

Successful completion of the chemistry program enables graduates to pursue careers in industry, government, teaching, or to continue education at the graduate level. Visit the ACS Chemistry for Life (https://www.acs.org/content/acs/en/careers/college-to-career.html) website to find additional information regarding careers in chemistry.

Degree Requirements

Students should refer to their DegreeWorks degree audit in their Web for Students account for more information regarding their degree requirements.

Code	Title	Hours
Major Requirements		
General Education Requirements (http://catalog.tamut.edu/academic-information/university-core-curriculum/)		42
BIOL 1306	Biology for Science Majors I [1]	3
BIOL 1106	Biology for Science Majors I Lab [1]	1
BIOL 1307	Biology for Science Majors II [1]	3
BIOL 1107	Biology for Science Majors II Lab [1]	1
CHEM 1311	General Chemistry I [1]	3
CHEM 1111	General Chemistry I (Lab) [1]	1
CHEM 1312	General Chemistry II [1]	3
CHEM 1112	General Chemistry II (Lab) [1]	1
CHEM 2423	Organic Chemistry I	4
CHEM 2425	Organic Chemistry II	4
CHEM 321	Inorganic Chemistry	4
CHEM 340	Quantitative Chemical and Instrumental Analysis	4
CHEM 351	Physical Chemistry I	4
CHEM 410	Biochemistry I	4
CHEM 415	Chemical Literature and Seminar	3
CHEM 497	Special Topics in Chemistry	1-4
MATH 2413	Calculus I [1]	4
PHYS 2125	University Physics I Lab	1
PHYS 2325	University Physics I	3
PHYS 2126	University Physics II Lab	1
PHYS 2326	University Physics II	3
Other Requirements		
CHEM 352	Physical Chemistry II (EL)	4
CHEM 405	Environmental Chemistry	3
CHEM 421	Advanced Inorganic Chemistry	3
CHEM 440	Instrumental Analysis	4
CHEM 479	Capstone in Chemistry	3
CHEM 499	Independent Research	1-12
MATH 2414	Calculus II	4
MATH 357	Probability and Statistics using R	3-4
or MATH 2415	Calculus III	

Electives (as needed to meet minimum degree requirements including 46 semester credit hours of upper division)	
Minimum Hours for Degree	**120**

[1] Satisfies Core Curriculum requirements

Note: A minimum of 46 upper division hours (300 and 400 level courses) are required for this degree. Resident credit totaling 25% of the hours is required for the degree. A minimum GPA of 2.0 is required in three areas for graduation: Overall GPA, Institutional GPA, and Major GPA.

Bachelor of Science-Chemistry

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First Year

Code	Title	Hours
Fall		**Semester Credit Hours**
MATH 1314	College Algebra satisfies core curriculum; Only if needed as prereq for MATH 2413	3-4
or MATH 2412	Pre-Calculus	
BIOL 1306	Biology for Science Majors I satisfies core curriculum	3
BIOL 1106	Biology for Science Majors I Lab satisfies core curriculum	1
UNIV 1100	University Foundations	1
ENGL 1301	Composition I satisfies core curriculum	3
CHEM 1311 & CHEM 1111	General Chemistry I and General Chemistry I (Lab)	4
Fall Total Semester Credit Hours		**15-16**
Spring		**Semester Credit Hours**
MATH 2413	Calculus I satisfies core curriculum	4
BIOL 1307	Biology for Science Majors II satisfies core curriculum	3
BIOL 1107	Biology for Science Majors II Lab satisfies core curriculum	1
CHEM 1312 & CHEM 1112	General Chemistry II and General Chemistry II (Lab)	4
ENGL 1302	Composition II satisfies core curriculum	3
or ENGL 2311	Technical Writing & Communication	
Creative Arts Core Curriculum Requirement (http://catalog.tamut.edu/academic-information/university-core-curriculum/)		3
Spring Total Semester Credit Hours		**18**
Total First Year Semester Credit Hours		**33-34**

Second Year

Code	Title	Hours
Fall		**Semester Credit Hours**
CHEM 2423	Organic Chemistry I	4
PHYS 2325	University Physics I	3
PHYS 2125	University Physics I Lab	1
CHEM 340	Quantitative Chemical and Instrumental Analysis	4
MATH 2414	Calculus II	4
Fall Total Semester Credit Hours		**16**
Spring		**Semester Credit Hours**
CHEM 2425	Organic Chemistry II	4

PHYS 2326	University Physics II	3
PHYS 2126	University Physics II Lab	1
CHEM 440	Instrumental Analysis	4
COMM 1307	Introduction to Mass Communication	3
or COMM 1311	Introduction to Communication Studies	
or SPCH 1315	Public Speaking	
Spring Total Semester Credit Hours		**15**
Total Second Year Semester Credit Hours		**31**

Third Year

Code	Title	Hours
Fall		**Semester Credit Hours**
CHEM 321	Inorganic Chemistry	4
CHEM 410	Biochemistry I	4
MATH 357	Probability and Statistics using R [1]	3-4
or MATH 2415	Calculus III	
HIST 1301	United States History I	3
Language, Philosophy and Culture Core Curriculum Requirement (http://catalog.tamut.edu/academic-information/university-core-curriculum/)		3
Fall Total Semester Credit Hours		**17-18**
Spring		**Semester Credit Hours**
CHEM 421	Advanced Inorganic Chemistry	3
CHEM 415	Chemical Literature and Seminar	3
CHEM 352	Physical Chemistry II (EL)	4
HIST 1302	United States History II	3
Social and Behavioral Sciences Core Curriculum Requirement (http://catalog.tamut.edu/academic-information/university-core-curriculum/)		3
Spring Total Semester Credit Hours		**16**
Total Third Year Semester Credit Hours		**31-32**

Fourth Year

Code	Title	Hours
Fall		**Semester Credit Hours**
CHEM 499	Independent Research [1]	1-6
CHEM 351	Physical Chemistry I	4
CHEM 497	Special Topics in Chemistry	1-4
PSCI 2305	U.S. Government and Politics	3
Fall Total Semester Credit Hours		**16**
Spring		**Semester Credit Hours**
CHEM 479	Capstone in Chemistry	3
CHEM 352	Physical Chemistry II (EL)	4
CHEM 405	Environmental Chemistry	3
PSCI 2306	State and Local Government	3
Spring Total Semester Credit Hours		**13**
Total Fourth Year Semester Credit Hours		**29**
Total Minimum Semester Credit Hours for Degree [2]		**120**

[1] Reminder: 46sch of Upper Division (300 & 400 level) Coursework is required.
[2] Electives may be required to meet the total overall hours and Upper Division requirement depending on the SCH of the variable credit hour courses taken.

NOTE: A minimum of 46 upper division hours (300 and 400 level courses) are required for this degree. Resident credit totaling 25% of the total hours is required for the degree. A minimum GPA of 2.0 is required in three areas for graduation: Overall GPA, Institutional GPA, and Major GPA.