

Chemistry (BSA)

Total Hours Required: 120

Plan of Study

The Plan of Study is a suggested four-year course sequence to support academic planning and serves as a helpful guide. Currently enrolled students should meet with their academic advisor to tailor their course selections and timelines to their individual goals and circumstances.

Course	Title	Hours
Year 1		
Semester 1		
CH 401	Principles of Chemistry I	4
M 408C	Differential and Integral Calculus	4
RHE 306	Rhetoric and Writing	3
<u>Visual and Performing Arts (050)</u>		3
<u>First-Year Signature Course (090)</u>		3
Hours		17
Semester 2		
CH 402C	Foundations of Chemistry II	4
M 408D	Sequences, Series, and Multivariable Calculus	4
<u>Social and Behavioral Sciences (080)</u>		3
<u>U.S. History (060)</u>		3
Hours		14
Year 2		
Semester 1		
CH 328C	Structure and Reactivity of Organic Molecules I	3
CH 128K	Organic Chemistry Laboratory	1
PHY 301	Mechanics	3
PHY 101L	Laboratory for Physics 301	1
<u>American and Texas Government (070)</u>		3
Hours chosen from: Language, Arts, and Culture		3
Hours		14
Semester 2		
CH 329C	Structure and Reactivity of Organic Molecules II	3
CH 128L	Organic Chemistry Laboratory	1
PHY 316	Electricity and Magnetism	3
PHY 116L	Laboratory for Physics 316	1
Hours chosen from: Language, Arts, and Culture		3
<u>U.S. History (060)</u>		3
Hours		14
Year 3		
Semester 1		
CH 353	Physical Chemistry I	3
CH 153K	Physical Chemistry Laboratory	1
Hours chosen from: Language, Arts, and Culture		3
Hours chosen from: Minor/Certificate/Field of Study		3
<u>Humanities (040)</u>		3
Free Elective		3
Hours		16
Semester 2		
BCH 369	Fundamentals of Biochemistry	3
Hours chosen from: Language, Arts, and Culture		3
<u>American and Texas Government (070)</u>		3
Hours chosen from: Minor/Certificate/Field of Study		3
CH 431	Inorganic Chemistry	4
Hours		16
Year 4		
Semester 1		
Hours chosen from: Minor/Certificate/Field of Study		3
Hours chosen from: Minor/Certificate/Field of Study		3
Free Elective		4

CH 456	Analytical Chemistry	4
Hours		14
Semester 2		
CH 376K	Advanced Analytical Chemistry	3
Hours chosen from: Minor/Certificate/Field of Study		3
Free Elective		9
Hours		15
Total Hours		120

Requirements

All requirements are listed below, starting with the most specialized moving to the most general. Additional requirements may follow the table, so be sure to read the entire page. Some required courses listed below may also satisfy General Education requirements, including Core Curriculum.

Code	Title	Hours
Major		
Mathematics		
Choose a sequence below:		8
Sequence 1:		
M 408C	Differential and Integral Calculus	
M 408D	Sequences, Series, and Multivariable Calculus	
Sequence 2:		
M 408N	Differential Calculus for Science	
M 408S	Integral Calculus for Science	
Primary Science		
CH 401	Principles of Chemistry I	4
or CH 401C	Foundations of Chemistry I	
Choose a sequence below:		4
Sequence 1:		
CH 402	Principles of Chemistry II	
Sequence 2:		
CH 402C	Foundations of Chemistry II	
Sequence 3:		
CH 302	Principles of Chemistry II	
CH 204	Introduction to Chemical Practice	
Sequence 4:		
CH 302C	Foundations of Chemistry II	
CH 204	Introduction to Chemical Practice	
Choose a sequence below:		8
Sequence 1:		
CH 328C	Structure and Reactivity of Organic Molecules I	
CH 329C	Structure and Reactivity of Organic Molecules II	
CH 128K	Organic Chemistry Laboratory	
CH 128L	Organic Chemistry Laboratory	
Sequence 2:		
CH 320M	Organic Chemistry I	
CH 320N	Organic Chemistry II	
CH 220C	Organic Chemistry Laboratory	
Sequence 3:		
CH 328M	Organic Chemistry I	
CH 328N	Organic Chemistry II	
CH 128K	Organic Chemistry Laboratory	
CH 128L	Organic Chemistry Laboratory	
CH 353	Physical Chemistry I	3
or CH 353M	Physical Chemistry I for Life Sciences	

CH 153K	Physical Chemistry Laboratory	1
CH 431	Inorganic Chemistry	4
CH 456	Analytical Chemistry	4
CH 376K	Advanced Analytical Chemistry	3
BCH 369	Fundamentals of Biochemistry	3
Secondary Science		
Choose a sequence below:		8
Sequence 1:		
PHY 301	Mechanics	
PHY 101L	Laboratory for Physics 301	
PHY 316	Electricity and Magnetism	
PHY 116L	Laboratory for Physics 316	
Sequence 2:		
PHY 303K	Engineering Physics I	
PHY 103M	Laboratory for Physics 303K	
PHY 303L	Engineering Physics II	
PHY 103N	Laboratory for Physics 303L	
Sequence 3:		
PHY 317K	General Physics I	
PHY 117M	Laboratory for Physics 317K	
PHY 317L	General Physics II	
PHY 117N	Laboratory for Physics 317L	
<i>Subtotal</i>		50
Degree (see details below)		27
Free electives: Additional coursework to reach total hours required.		16
<i>Subtotal</i>		43
General Education		
<u>Remaining Core Curriculum (42 hours total)</u>		27
<u>Foreign Language other than English, Beginning Proficiency</u>		
<i>Subtotal</i>		27
<u>College Requirements - Natural Sciences</u>		
<u>General University Requirements</u>		
Total Hours		120

Degree-Bachelor of Science and Arts (BSA)

The requirements for the Bachelor of Science and Arts are designed to give each student flexibility in the selection of courses to meet individual needs.

Code	Title	Hours
Language, Arts, and Culture		
Hours selected from at least two of the following four areas:		12
Fine arts: courses chosen from design, ensemble, fine arts, music, studio art, performance, visual art studies, art history, and theatre and dance		
Humanities: courses chosen from American studies, ancient history and classical civilization, classical civilization, comparative literature, creative writing, English, humanities, philosophy, religious studies, and rhetoric and writing		
Social and behavioral sciences: courses chosen from anthropology, economics, geography, government, history, linguistics, psychology, and sociology		

Foreign language and culture: foreign language courses or culture courses chosen from an approved list available in the college advising centers. Students who elect to pursue a foreign language must complete a beginning level competency. Students who complete intermediate or advanced level foreign language courses rather than courses equivalent to beginning level competency may count only one intermediate or advanced course toward the language, arts, and culture requirement (a maximum of six hours earned through credit by examination may count toward the language arts and culture requirement)

Additional Requirements

Completion of one of the following: 15

Transcript-recognized minor or certificate (minor outside the College of Pharmacy, Cockrell School of Engineering, Jackson School of Geosciences, and School of Nursing)

Fifteen hours in a single field of study (outside the College of Natural Sciences, College of Pharmacy, Cockrell School of Engineering, Jackson School of Geosciences, and School of Nursing)

Total Hours 27

Additional Requirements and Policies

- Students may not use a course counting toward one area of prescribed work to fulfill the requirements of another area of prescribed work unless expressly permitted as follows:
 - Courses counting toward the university core curriculum may also count toward the major requirements, the additional requirement, and electives.
 - Per university policy, a minimum of nine hours of the transcript-recognized minor may not be also used to satisfy the major.
 - Per university policy, a minimum of one course taken in a transcript-recognized certificate to satisfy the additional requirement may not also count toward the major.
- Students who seek a transcript-recognized minor or transcript-recognized certificate must meet the minimum grade requirements and grade point average requirements of the program.
- Students must earn a University grade point average of at least 2.00 in all courses taken at the University (including credit by examination, correspondence, and extension), a grade of at least C- in each mathematics and science course counted toward the major, and a grade point average of at least 2.00 in the courses fulfilling the major.
- Students must complete a minimum of 60 hours in residence at the University, including at least 18 hours of the major. The 18 hours of the major in residence must include at least nine hours of advanced coursework.