

Major Fact Sheet

Chemistry, B.S.

What will I be studying?

Students majoring in chemistry study elements and compounds composed of atoms, molecules, and ions. They study their composition, structure, properties, behavior, and the changes they undergo during a reaction with other substances.



Computational Chemistry

Use high-performance computing to solve problems and create simulations that require massive amounts of data.

Nanochemistry

Prepare and assemble "little pieces of matter" with novel electronic, magnetic, optical, chemical, and mechanical behaviors.

Personal Care/Cosmetic Chemistry

Develops and manufactures products used for personal hygiene and beautification.

Pharmaceutical Research

Apply training to the process of synthesizing new pharmaceuticals and improve the processes by which existing pharmaceuticals are made.

**Please note this is not a complete list of careers you can go into with this major.



Science Center (SCA) 203



ChemAdvise@usf.edu



usf.edu/chemistry/advising

Contact Us

USF Chemistry Society

Computational Science Club

Pre-Pharmacy Club

USF PAMSA

Get Involved!

Chemistry Department Chemistry B.S.

Four Year Plan

Year 1		
Fall	Spring	Summer
CHM 2045: Chemistry 1**	CHM 2046: Chemistry 2	BSC 2010: Cellular Processes
CHM 2045L: Chemistry 1 Lab**	CHM 2046L: Chemistry 2 Lab	Enhanced Gen-Ed: Creative Thinking
MAC 2311: Calculus 1**	MAC 2312: Calculus 2	
ENC 1101: Composition 1	ENC 1102: Composition 2	
Core Social Science Course	Core Humanities Course	
Total Hours: 14	Total Hours: 14	Total Hours: 6
	Year 2	
Fall	Spring	Summer
CHM 3415C: Physical Chemistry Methods	PHY 2049: Physics 1**	Enhanced Gen-Ed: Ethical Reas. & Civic Eng.
PHY 2048: Physics 1**	PHY 2049L: Physics 1 Lab**	
PHY 2048L: Physics 1 Lab**	CHM 2210: Organic Chemistry 1	
Enhanced Gen-Ed: Info & Data Literacy	CHM 2210L: Organic Chemistry 1 Lab	
Enhanced Gen-Ed: Human & Cultural Diversity	Upper-Level Non-Major Elective	
Total Hours: 14	Total Hours: 12	Total Hours: 3
Year 3		
Fall	Spring	Summer
CHM 2211: Organic Chemistry 2	CHM 4410L: Physical Chemistry Lab	
CHM 2211L: Organic Chemistry 2 Lab	CHM 4411: Physical Chemistry 2	
CHM 4410: Physical Chemistry 1	CHM 3120C: Elementary Analytical Chemistry	
Civics Literacy Course	Natural Science Course	
Non-Major Elective	Non-Major Elective	
Total Hours: 15	Total Hours: 15	Total Hours: 0
Year 4		
Fall	Spring	Total Credits to Graduation
BCH 4033: Advanced Biochemistry	CHM 4131C: Mtds of Chemical Investigation	Major Requirements: 76 credit hours General Education Requirements: 27 credit hours
CHM 4130C: Mtds. of Instrumental Analysis	CHM 4611: Advanced Inorganic Chemistry	
CHM 3610: Intermediate Inorganic Chemistry	Upper-Level Non-Major Elective	
CHM 3610L: Interm. Inorganic Chemistry Lab	Enhanced Gen-Ed: High Impact Practice	
Non-Major Elective		Other Degree Requirements: 17 credit hours
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Total Hours: 14	Total Hours: 13	Total= 120

^{**}May require completion of additional math pre-requisites (consider the MPT or CPT exams)