CHEMISTRY, BACHELOR OF SCIENCE

To obtain a B.S. with a major in Chemistry, a student must fulfill university, college, and departmental requirements. Minimum hour requirements follow:

- 46 hours of University General Education courses
- 12 hours college breadth requirement
- 62 hours of major courses
- Elective hours as required to total 120 hours

TOTAL HOURS: 120

Requirements

A B.S. degree in chemistry requires a minimum of 42 credit hours of approved chemistry courses.

Code	Title	Credits
Required Chemistry Courses		
CHEM 1180 & CHEM 1184	GENERAL CHEMISTRY I and GENERAL CHEMISTRY I LABORATORY	4
CHEM 1190 & CHEM 1194	GENERAL CHEMISTRY II and GENERAL CHEMISTRY II LABORATORY	4
CHEM 2250	ORGANIC CHEMISTRY I	3
CHEM 2260	ORGANIC CHEMISTRY II	3
CHEM 2274	ORGANIC CHEMISTRY LABORATORY	2
CHEM 2400 & CHEM 2404	QUANTITATIVE ANALYSIS and QUANTITATIVE ANALYSIS LAB	4
CHEM 2500	INTRODUCTION TO INORGANIC CHEMISTRY	3
CHEM 3350 & CHEM 3354	PHYSICAL CHEMISTRY I and PHYSICAL CHEMISTRY I LABORATORY	4
CHEM 3360 & CHEM 3364	PHYSICAL CHEMISTRY II and PHYSICAL CHEMISTRY II LABORATORY	4
CHEM 4400 & CHEM 4404	INSTRUMENTAL ANALYSIS and INSTRUMENTAL ANALYSIS LABORATORY	4
Advanced Chemistry Courses		
Select 7 credit hours from the advanced courses (listed below)		7
Total Credits		42

Advanced Courses

Code	Title	Credits
Analytical		
CHEM 3030	ENVIRONMENTAL CHEMISTRY	3
CHEM 3414	INSTRUMENTAL METHODS	1
CHEM 3424	SPECTROMETRIC CHARACTERIZATIONS	1
Biochemistry		
CHEM 4610	BIOCHEMISTRY OF METABOLISM	4
CHEM/BIOL 4650	BIOCHEMISTRY I (with the following lab)	3
CHEM/BIOL 4654	BIOCHEMISTRY I LABORATORY	1
CHEM/BIOL 4660	BIOCHEMISTRY II (with the following lab)	3
CHEM/BIOL 4664	BIOCHEMISTRY II LABORATORY	1
CHEM 4670	PROTEIN PURIFICATION AND CHARACTERIZATION	2
Inorganic		
CHEM 3514	INORGANIC PREPARATIONS	1
CHEM 4500	ADVANCED INORGANIC CHEMISTRY	3
CHEM 4510	SOLID STATE INORGANIC CHEMISTRY	3
CHEM 4540	GEOCHEMISTRY	3
Medicinal		
CHEM 3710	ESSENTIALS OF MEDICINAL CHEMISTRY	3
Organic		
CHEM 3210	INTRODUCTION TO MOLECULAR MODELING	3
CHEM 4230	ADVANCED ORGANIC CHEMISTRY - SYNTHESIS	3
CHEM 4240	ADVANCED ORGANIC CHEMISTRY - MECHANISM	3
CHEM 4250	ADVANCED ORGANIC CHEMISTRY: MECHANISM AND MODELING	4
Polymer		
CHEM 4310	POLYMER CHEMISTRY	3
Research		
CHEM 4950	CHEMISTRY PROJECTS	1
CHEM 4960	CHEMISTRY PROBLEMS	1-3
Internship		
CHEM 4810	CHEMISTRY INTERNSHIP	1-6
Special Topics		
CHEM 4930	SPECIAL TOPICS IN CHEMISTRY	1-3

Required Cognate Courses:

Code	Title	Credits
MATH 1950	CALCULUS I	5
MATH 1960	CALCULUS II	5
PHYS 2110	GENERAL PHYSICS I - CALCULUS LEVEL	4
PHYS 1154	GENERAL PHYSICS LABORATORY I	1
PHYS 2120	GENERAL PHYSICS-CALCULUS LEVEL	4
PHYS 1164	GENERAL PHYSICS LABORATORY II	1
Total Credits		20

Code	Title	Credits
Recommended but not required:		
MATH 1970	CALCULUS III	4

To graduate with an ACS certified degree, see your chemistry advisor for proper course selection.