

Chemistry Major (52 credit hours)

The study of chemistry introduces students to the world of atoms and molecules and their composition and interactions. This study is recommended for chemistry majors and minors as preparation for graduate school, medical school, secondary-level teaching, or careers in government or industrial laboratories. It is also recommended for physics or biology students to supplement and complement their major fields of study.

Major Requirements:

CHEM 1000 and 2700 do not apply toward the major

40 credit hours from:

- CHEM 2110, General Chemistry I, 4 credit hours
- CHEM 2120, General Chemistry II, 4 credit hours
- CHEM 2210, Organic Chemistry I, 4 credit hours
- CHEM 2220, Organic Chemistry II, 4 credit hours
- CHEM 3100, Analytical Chemistry, 4 credit hours
- CHEM 4510, Senior Physical Science Practicum I, 1 credit hour
- CHEM 4520, Senior Physical Science Practicum II, 1 credit hour
- CHEM 4910, Science Seminar I, 1 credit hour
- CHEM 4920, Science Seminar II, 1 credit hour
- MATH 2010, Calculus I, 4 credit hours
- MATH 2020, Calculus II, 4 credit hours
- PHYS 2240, General Physics I, 4 credit hours
- PHYS 2250, General Physics II, 4 credit hours

4 credit hours from:

- CHEM 4110, Thermodynamics and Kinetics, 4 credit hours
- CHEM 4120, Quantum Theory, 4 credit hours

8 credit hours remaining from additional upper-division (3000- level and above) CHEM courses
Among the CHEM Electives (3000 or higher), students must take CHEM 4110 or CHEM 4120.

- CHEM 2110, General Chemistry I, is a Scientific Ways of Knowing course in the Liberal Arts Program.
- CHEM 3100, Analytical Chemistry, is a Writing Intensive course in the Liberal Arts Program.
- CHEM 4910/4920, Science Seminar I/II, is both a Speaking & Writing Intensive course in the Liberal Arts Program.
- MATH 2010, Calculus I, is a Quantitative Reasoning course in the Liberal Arts Program.

NOTE: All students must complete 120 total credit hours to graduate from Anderson University.

Questions? Please contact the [Department of Physical Sciences & Engineering](#).

Proposed 4 year course sequence:

- Freshman: CHEM 2110, MATH 2010; CHEM 2120, MATH 2020
- Sophomore: CHEM 2210; CHEM 2220, PHYS 2240
- Junior: CHEM 3100, CHEM Elective, PHYS 2250; CHEM Elective
- Senior: CHEM 4110/4120, 4510, 4910; CHEM 4520, 4920

Chemistry Major 4 Year Suggested Course Sequence

SEMESTER 1		SEMESTER 2	
Scientific Ways: CHEM 2110	4 Hours	CHEM 2120	4 Hours
Quantitative Reasoning: MATH 2010	4 Hours	MATH 2020	4 Hours
ENGL 1100/ENGL 1110	3-4 Hours	ENGL 1120	3 Hours
LART 1050	1 Hour	Personal Wellness	2 Hours
COMM 1000	3 Hours	Civic Ways of Knowing	3 Hours

SEMESTER 3		SEMESTER 4	
CHEM 2210	4 Hours	CHEM 2220	4 Hours
Foreign Language	4 Hours	PHYS 2240	4 Hours
BIBL 2000	3 Hours	Aesthetic Ways of Knowing	3 Hours
Additional Class	3 Hours	Social & Behavioral Ways of Knowing	3 Hours
Additional Class	3 Hours	Additional Class	3 Hours

SEMESTER 5		SEMESTER 6	
CHEM 3100 (Writing Intensive)	4 Hours	CHEM Elective (3000 or higher)	4 Hours
CHEM Elective (3000 or higher)	4 Hours	Global/Intercultural Ways of Knowing	3 Hours
PHYS 2250	4 Hours	Additional Class	3 Hours
Additional Class	3 Hours	Additional Class	3 Hours

SEMESTER 7		SEMESTER 8	
CHEM 4110/4120	4 Hours	CHEM 4520	1 Hour
CHEM 4510 (Experiential)	1 Hour	CHEM 4920 (SI, 1/2 WI)	1 Hour
CHEM 4910 (1/2 WI)	1 Hour	Additional Class	3 Hours
Christian Ways of Knowing	3 Hours	Additional Class	3 Hours
Civil Discourse & Critical Reasoning	3 Hours	Additional Class	3 Hours
Additional Class	3 Hours	Additional Class	3 Hours

Questions? Please contact the [Department of Physical Sciences & Engineering](#).

Proposed 3 Year Course Sequence:

Freshman: CHEM 2110, MATH 2010; CHEM 2120, MATH 2020, PHYS 2240
 Sophomore: CHEM 2210, PHYS 2250, CHEM 3100; CHEM 2200, CHEM Elective
 Junior: CHEM 4110/4120, CHEM 4510, CHEM 4910; CHEM 4520, CHEM 4920, CHEM Elective

Chemistry Major 3 Year Suggested Course Sequence

SEMESTER 1		SEMESTER 2	
Scientific Ways: CHEM 2110	4 Hours	CHEM 2120	4 Hours
Quantitative Reasoning: MATH 2010	4 Hours	MATH 2020	4 Hours
ENGL 1100/ENGL 1110	3-4 Hours	PHYS 2240	4 Hours
LART 1050	1 Hour	ENGL 1120	3 Hours
COMM 1000	3 Hours	Civic Ways of Knowing	3 Hours
Social & Behavioral Ways of Knowing	3 Hours		

SUMMER 1	
Additional Classes	9 Hours

SEMESTER 3		SEMESTER 4	
CHEM 2210	4 Hours	CHEM 2220	4 Hours
PHYS 2250	4 Hours	CHEM Elective (3000 or higher)	4 Hours
CHEM 3100 (Writing Intensive)	4 Hours	Civic Ways of Knowing	3 Hours
Foreign Language	4 Hours	Aesthetic Ways of Knowing	3 Hours
Personal Wellness	2 Hours	Global/Intercultural Ways of Knowing	3 Hours

SUMMER 2	
Additional Classes	9 Hours

SEMESTER 5		SEMESTER 6	
CHEM 4110 or 4120	4 Hours	CHEM 4520	1 Hour
CHEM 4510	1 Hour	CHEM 4920	1 Hour
CHEM 4910	1 Hour	CHEM Elective (3000 or higher)	4 Hours
BIBL 2000	3 Hours	Christian Ways of Knowing	3 Hours
Civil Discourse & Critical Reasoning	3 Hours	Additional Class	3 Hours
Additional Class	3 Hours	Additional Class	3 Hours
Additional Class	3 Hours		

Questions? Please contact the [Department of Physical Sciences & Engineering](#).