

Chemistry: MAJOR Requirements for Secondary Teacher Certification

These requirements are for students entering the program in summer 2008 or later.

Major/minor requirements are subject to change. All candidates are expected to consult with a School of Education advisor as they plan and progress through their program.

Prerequisite Courses

(Note: These do not count toward the required credits for the major.)

Course Number	Course Title	Credits	Completed?
MATH 115	Calculus I	4	
MATH 116	Calculus II	4	
MATH 215	Calculus III	4	
MATH 216	Introduction to Differential Equations	4	
PHYSICS 140/141	General Physics I/Lab	5	
PHYSICS 240/241	General Physics II/Lab	5	

Chemistry majors must complete a minimum of **35 credits** including the following:

Major Requirements

Course Number	Course Title	Credits	Completed?
EDUC 422	Teaching of Science in the Secondary School	3	
CHEM 125	General Chemistry Lab I	1	
CHEM 126	General Chemistry Lab II	1	
CHEM 130*	General Chemistry: Macroscopic Investigations and Reaction Principles	3	
CHEM 210	Structure and Reactivity II	4	
CHEM 211	Investigations in Chemistry	1	
CHEM 215	Structure and Reactivity II	3	
CHEM 216	Synthesis and Characterization of Organic Compounds	2	
CHEM 241	Introduction to Chemical Analysis	2	
CHEM 242	Introduction to Chemical Analysis Lab	2	
CHEM 260	Chemical Principles	3	

* If possible, students should take the studio section of Chemistry 130. This section is generally only offered in the fall. Please contact the Chemistry Department at (734) 763-7315 to identify which section is the studio section.

Select one of the following courses:

CHEM 399	Undergraduate Research	1-4	
CHEM 485	Projects Lab	1-4	

Select one of the following courses:

BIOLOGY 310	Introductory Biochemistry	4	
BIOLOGY 311	Introductory Biochemistry	4	
BIOCHEM 415	Introductory Biochemistry	3	

Select a total of six credits from the following courses:

CHEM 302	Inorganic Chemistry	3	
CHEM 312	Synthesis and Characterization (Chemistry 302 is prerequisite)	2	
CHEM 402	Intermediate Inorganic Chemistry	3	
CHEM 447	Physical Methods of Analysis	3	
CHEM 461	Physical Chemistry I	3	
CHEM 462	Computational Chemistry Lab	1	
CHEM 463	Physical Chemistry II	3	
CHEM 480	Physical and Instrumental Chemistry	3	