

Integrated Science Comprehensive 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.

Due to the large number of required credits for a comprehensive major, those completing a comprehensive major *do not have to elect a minor*. Integrated Science comprehensive majors must complete a minimum of 64 credits including the following courses:

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	
CHEM 125	General Chemistry Lab I	1	
CHEM 130 *	General Chemistry: Macroscopic Investigations and Reaction 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.

Major Requirements

Course Number	Course Title	Credits	Completed?
EDUC 422	Teaching of Science in the Secondary School	3	
BIOLOGY 171	Introductory Biology: Ecology and Evolution	4	
BIOLOGY 172	Introductory Biology: Molecular, Cellular, and Developmental	4	
BIOLOGY 173	Introductory Biology Lab	2	
BIOLOGY 225	Principles of Animal Physiology: Lecture	3	
BIOLOGY 305	Genetics	4	
CHEM 210	Structure and Reactivity I	4	
CHEM 211	Investigations in Chemistry	1	
CHEM 215	Structure and Reactivity II	3	

CHEM 216	Synthesis and Characterization of Organic Compounds	2	
CHEM 241/242	Introduction to Chemical Analysis/Lab	4	
PHYSICS 140/141	General Physics I/Lab	5	
PHYSICS 240/241	General Physics II/Lab	5	
PHYSICS 340/341	Waves, Heat, Light/Lab	5	
ASTRO 101	Introductory Astronomy: The Solar System and the Search for Life Beyond Earth	4	
GEOSCI 118 AND GEOSCI 119	Introductory Geology Lab AND Introductory Geology Lectures	5	

Select one course:

BIOLOGY 310	Introductory Biochemistry	4	
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BIOLCHEM 415	Introductory Biochemistry	3	

Select one course:

AOSS 102	Extreme Weather	3	
AOSS 202	The Atmosphere	3	