Teaching Minors for Secondary Education Majors
The Secondary Education program requires the completion of a teaching major and a teaching minor to fulfill the subject area requirements of the program.

Secondary Education majors may choose appropriate teaching minors from the following areas: biology, general business, chemistry, English, general science, marketing/distributive education, mathematics, physical education/coaching, physics, social studies, Spanish or speech communications.

If a course is required in both your major and your minor, it can only be counted in your major. Consult your advisor if you need to select a substitute course.

A 2.50 GPA is required for satisfactory completion of the general science teaching minor.

More Information
For more information about the secondary education program, contact:
College of Education & Human Services
Bishop Hall Room 601
Ferris State University
1349 Cramer Circle
Big Rapids, MI 49307-2737
Phone: 231-591-3646

Required Courses  Credit Hours
12 hours required.
Select at least 4 courses in 2 of the following areas:
ASTR 120  THE STELLAR SYSTEM*Z  4
ASTR 130  THE SOLAR SYSTEM*Z  4
ASTR 140  THE SUN *Z  3
ASTR 230  INTRO ASTROPHYSICS* Z  3
BIOG 111  GEOG OF PHYS ENVIRONMENT*Z  3
CHEM 121  GENERAL BIOLOGY 1 *Z  4
CHEM 131  GENERAL BIOLOGY 2 *Z  4
CHEM 218  MICROBIAL ECOLOGY *Z  3

You must complete one of the following options:
(Do not select your teaching major or minor area.)

Option 1
Chemistry (13 credit hours required)
CHEM 121  GENERAL CHEMISTRY 1 *Z  5
CHEM 122  GENERAL CHEMISTRY 2 *Z  5

Choose one:
CHEM 124  INTRO ORGANIC & BIOCHEM *Z  3
CHEM 214  FUND OF ORGANIC CHEMISTRY *Z  4

Option 2
Biology (15 credit hours required)
BIOL 109  BASIC HUMAN ANATOMY/PHYSIOLOGY *Z  4
BIOL 121  GENERAL BIOLOGY 1 *Z  4
BIOL 122  GENERAL BIOLOGY 2 *Z  4
BIOL 218  MICROBIAL ECOLOGY *Z  3

Option 3A
Physics (13 credit hours required)
PHYS 241  GENERAL PHYSICS 1 *Z  5
PHYS 242  GENERAL PHYSICS 2 *Z  5
PHYS 311  INTRO TO MODERN PHYSICS *Z  3

Choose one:
PHYS 260  STATICS *Z  3
PHYS 261  DYNAMICS*Z  3

Option 3B
Physics (14 credit hours required)
PHYS 211  INTRODUCTORY PHYSICS 1*Z  4
PHYS 212  INTRODUCTORY PHYSICS 2*Z  4

Plus 2 other courses selected from Option 1 or Option 2 or PHYS 311 to bring the total number of hours to 14.

Minimum semester credit hours required for general science minor: 25-27