

# BIOLOGY/SECONDARY MINOR

This minor satisfies the endorsement for grades 5-12.

## Required Biology Courses

BIOL 171	BIOLOGY I	5
BIOL 172	BIOLOGY II	5
BIOL 173	BIOLOGY III	5
BIOL 270	BIOLOGICAL INVESTIGATION	3
BIOL 310	FUNDAMENTALS OF GENETICS	5
BIOL 340	BIOETHICS	2
BIOL 423	EVOLUTION	5
BIOL 440	ECOLOGY	4
BIOL 441	ECOLOGY LAB	2

## Choose one of the following 5

BIOL 301	MICROBIOLOGY	
BIOL 302	BOTANY	
BIOL 303	INVERTEBRATE ZOOLOGY	
BIOL 304	VERTEBRATE ZOOLOGY	

## Required Supporting Courses

BIOL 380	DATA ANALYSIS FOR BIOLOGISTS	5
or MATH 141	PRECALCULUS I	
or MATH 380	ELEMENTARY PROBABILITY AND STATISTICS	
SCED 390	SCIENCE TEACHING METHODS	5

**Total Credits 51**

## Students who earn a Biology/Secondary minor from EWU should be able to:

- explain the disciplinary core ideas of biology and guide the learning of others in key principles of biology outlined in the Next Generation Science Standards;
- apply science and engineering practices in NGSS;
- incorporate instructional materials and teaching strategies to a community of diverse students;
- explain how cross-cutting ideas bridge disciplinary boundaries, uniting core ideas throughout the fields of science and engineering;
- appropriately respond to potential safety hazards in different learning environments, ,e.g., laboratory, classroom, field.