

BIOLOGY FOR PROSPECTIVE MIDDLE SCHOOL AND HIGH SCHOOL TEACHERS (BA)

CHEM-2201	Organic Chemistry I Lab	1
MATH-1220	Introductory Statistics	4
PHYS-1100	Concepts in Physics	4
Total Hours		54

¹ With BIOL-3305 Biological Statistics and BIOL-3310 Biology III- Mechanisms of Evolution prerequisite to all other 3300- and 4400-level courses

Program Mission

The mission of the Biology Program is to prepare majors to appreciate and understand biological diversity across levels of organization and apply biological principles and the scientific method to think critically and solve problems in an evidence-based manner. Majors will engage in collaborative and creative experimental- and literature-driven research, which involves measuring data, generating questions, using statistical tools, and drawing evidence-based inferences. Graduates will effectively communicate their work in both written and oral form. They will be prepared to enter graduate and professional schools, to teach at the secondary-school level, or to enter the work force.

Program Outcomes

1. Majors will demonstrate above average comprehension (relative to their peers at other institutions) of cell biology, molecular biology, genetics, organismal biology, population biology, evolution, and ecology.
2. Majors will be able to use good scientific practices to ask research questions and collect, organize, analyze, and interpret data.
3. Majors will demonstrate proficiency in oral and written communication of scientific information.
4. Biology Education students will demonstrate knowledge of biology and the ability to teach it.
5. Majors will be able to present biological information to diverse audiences in relevant ways, taking into account differences in background and experience.

Program Requirements

Code	Title	Hours
Required Courses		
BIOL-1121	General Biology I	5
BIOL-1122	General Biology II	4
BIOL-3305	Biological Statistics	4
BIOL-3310	Biology III- Mechanisms of Evolution	3
BIOL-3355	Ecology	4
BIOL-3370	Genetics	4
BIOL-4457	Methods of Teaching Secondary Science	2
BIOL-4482	Animal Physiology	4
One 4-hour "BIOL" prefixed laboratory courses numbered above BIOL-3311 ¹		4
Double Major in Secondary Education		
Required Supporting Courses		
Required supporting courses that should be taken before all biology courses numbered above 3311 are as follows:		
CHEM-1200	General Chemistry I Lecture	3
CHEM-1201	General Chemistry I Laboratory	1
CHEM-1210	General Chemistry II Lecture	3
CHEM-1211	General Chemistry II Lab	1
CHEM-2200	Organic Chemistry I Lecture	3