

BIOLOGY EMPHASIS, AS - WITH PORTLAND STATE UNIVERSITY

Program Code: AS.PSUBIOLOGY

Students receiving an Associate of Science degree with an emphasis in Biology will be prepared to transfer into upper division courses to complete a Bachelor of Science degree in Biology. Courses establish the foundations in understanding cellular processes, evolution, ecology, plant and animal physiology and population studies.

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Outcomes

Program Outcomes

Upon successful completion of this program, students should be able to:

- communicate complex ideas by demonstrating an ability to gather and analyze data, construct evidence-based arguments and critically evaluate information;
- be able to apply critical thinking to address biological phenomena using scientific processes;
- demonstrate an understanding of the complexity and diversity of life;
- analyze and construct relationships between human activities and the environment;
- recognize the contributions of scientific knowledge in contributing to technological advances and advancing the human condition.

Requirements

Course	Title	Credits
First Year		
Fall Term		
BI-211	General Biology for Science Majors (Cellular Biology)	5
CH-221	General Chemistry	5
WR-121	English Composition	4
Credits		14
Winter Term		
BI-212	General Biology for Science Majors (Animal Biology)	5
CH-222	General Chemistry	5
WR-122 or WR-227	English Composition or Technical Report Writing	4
Core Electives (p. 1)		4
Credits		18
Spring Term		
BI-213	General Biology for Science Majors (Plant Biology & Ecology)	5
CH-223	General Chemistry	5

Course	Title	Credits
COMM-111 or COMM-140	Public Speaking or Introduction to Intercultural Communication	4
Credits		14
Second Year		
Fall Term		
CH-241	Organic Chemistry I	5
MTH-243 or MTH-251	Statistics I or Calculus I	4-5
PH-201	General Physics	5
Core Electives (p. 1)		3
Credits		17-18
Winter Term		
CH-242	Organic Chemistry II	5
MTH-244 or MTH-252	Statistics II or Calculus II	4-5
Core Electives (p. 1)		3
Credits		12-13
Spring Term		
Select one of the following:		5-7
CH-243	Organic Chemistry III	
Science Electives (p. 1)		
General Education Science Electives (p.)		4-5
Core Electives (p. 1)		6
Credits		15-18
Total Credits		90-95

Core Electives

Any General Education course in the respective distribution areas of Arts & Letters or Social Sciences listed in the **AAOT**

Science Electives

Minimum 14 science elective credits

Code	Title	Credits
G-201	General Geology	4
G-202	General Geology	4
G-203	General Geology	4
PH-202	General Physics	5
PH-203	General Physics	5
CH-242	Organic Chemistry II (Recommended)	5
CH-243	Organic Chemistry III (Recommended)	5

General Education Science Electives

Any general education science course in **ASC, BI, CH, ESR, G, GS, PH, Z**

Careers

Career pathways include:

- pre-pharmacy
- pre-medical
- preveterinarian
- biological and zoology research fields

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- wildlife and fisheries management
- wide range of related fields