

# BIOLOGY EMPHASIS, AS - WITH OREGON STATE UNIVERSITY

Program Code: AS.OSUBIOLOGY

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
<b>First Year</b>		
<b>Fall Term</b>		
BI-211	General Biology for Science Majors (Cellular Biology)	5
CH-221	General Chemistry	5
PE-185	Physical Education	1
WR-121	English Composition	4
<b>Credits</b>		<b>15</b>
<b>Winter Term</b>		
BI-212	General Biology for Science Majors (Animal Biology)	5
CH-222	General Chemistry	5
MTH-251	Calculus I	5
<b>Credits</b>		<b>15</b>
<b>Spring Term</b>		
BI-213	General Biology for Science Majors (Plant Biology & Ecology)	5
Select one of the following:		4
COMM-111	Public Speaking	
COMM-112	Persuasive Speaking	
COMM-218	Interpersonal Communication	

Course	Title	Credits
CH-223	General Chemistry	5
<b>Credits</b>		<b>14</b>
<b>Second Year</b>		
<b>Fall Term</b>		
CH-241	Organic Chemistry I <sup>1</sup>	5
PH-201 or PH-211	General Physics or General Physics With Calculus	5
WR-122 or WR-227	English Composition or Technical Report Writing	4
<b>Core Electives (p. 1)</b>		<b>3</b>
<b>Credits</b>		<b>17</b>
<b>Winter Term</b>		
CH-242	Organic Chemistry II <sup>1</sup>	5
MTH-252	Calculus II	5
PH-202 or PH-212	General Physics or General Physics With Calculus	5
<b>Credits</b>		<b>15</b>
<b>Spring Term</b>		
CH-243	Organic Chemistry III <sup>1</sup>	5
HPE-295	Health & Fitness for Life	3
PH-203 or PH-213	General Physics or General Physics With Calculus	5
<b>Core Electives (p. 1)</b>		<b>3</b>
<b>Credits</b>		<b>16</b>
<b>Total Credits</b>		<b>92</b>

<sup>1</sup> Organic Chemistry –satisfies degree requirement but does not transfer at 300 level credits unless student passes the American Chemical Society (ACS) organic exam. OSU highly recommends taking the ACS organic exam. Transfers as a combination of CH-331, CH-332, & CH-337

## Core Electives

Code	Title	Credits
ANT-101	Physical Anthropology	4
ANT-102	Archaeology & Prehistory	4
ANT-103	Cultural Anthropology	4
ANT-231	Native Americans of the Pacific Northwest	4
ANT-232	Native Americans of North America	4
ART-101	Art Appreciation	3
ART-204	History of Art/Ancient Through Medieval	4
ART-205	History of Art/Romanesque Through Baroque	4
ART-206	History of Art/Enlightenment Through Contemporary	4
ASC-175	Integrated Science Inquiry	4
ASC-176	Integrated Science Inquiry	4
ASC-177	Integrated Science Inquiry	4
BI-101	General Biology; Cellular Biology	4
BI-102	General Biology; Animal Systems	4
BI-103	General Biology; Plants & the Ecosystem	4
BI-175	Integrated Science Inquiry	4
BI-176	Integrated Science Inquiry	4
BI-177	Integrated Science Inquiry	4

Code	Title	Credits	Code	Title	Credits
BI-204	Elementary Microbiology	4	GS-106	Earth System Science	4
BI-211	General Biology for Science Majors (Cellular Biology)	5	GS-107	Astronomy	4
BI-212	General Biology for Science Majors (Animal Biology)	5	HST-101	History of Western Civilization	4
BI-213	General Biology for Science Majors (Plant Biology & Ecology)	5	HST-102	History of Western Civilization	4
BI-234	Introductory Microbiology	4	HST-103	History of Western Civilization	4
CH-104	Introductory Chemistry	5	HST-201	History of the United States	4
CH-105	Introductory Chemistry	5	HST-202	History of the United States	4
CH-114	Chemistry in Art	4	HST-203	History of the United States	4
CH-221	General Chemistry	5	MUS-206	Music Literature: History of Rock	4
CH-222	General Chemistry	5	PH-121	Astronomy	4
CH-223	General Chemistry	5	PH-122	General Astronomy	4
EC-201	Principles of Economics: MICRO	4	PH-123	General Astronomy	4
EC-202	Principles of Economics: MACRO	4	PH-201	General Physics	5
ENG-104	Introduction to Literature: Fiction	4	PH-202	General Physics	5
ENG-105	Introduction to Literature: Drama	4	PH-203	General Physics	5
ENG-106	Introduction to Literature: Poetry	4	PH-211	General Physics With Calculus	5
ENG-107	World Literature: Ancient Through Classical Times	4	PH-212	General Physics With Calculus	5
ENG-108	World Literature: Early Middle Ages through the 18th Century	4	PH-213	General Physics With Calculus	5
ENG-109	World Literature: The 19th through 21st Centuries	4	PHL-102	Ethics	4
ENG-194	Introduction to Film	4	PS-200	Introduction to Political Science	4
ENG-201	Shakespeare	4	PS-201	American Government and Politics	4
ENG-202	Shakespeare	4	PS-203	State and Local Governments	4
ENG-204	British Literature: Ancient to Enlightenment	4	PS-204	Introduction to Comparative Politics	4
ENG-205	British Literature: Romantic to Contemporary	4	PS-205	International Relations	4
ENG-213	U.S. Latino Literature	4	PS-225	Introduction to Political Ideologies	4
ENG-240	Native American Mythology	4	PSY-110	Psychology: An Overview	4
ENG-241	Norse Mythology	4	PSY-200	Psychology As A Natural Science	4
ENG-250	Greek Mythology	4	PSY-205	Psychology As a Social Science	4
ENG-251	Celtic Mythology	4	PSY-219	Introduction to Abnormal Psychology	4
ENG-252	Hindu Mythology	4	PSY-231	Introduction to Human Sexuality	4
ENG-253	American Literature: Pre-Columbian to Civil War	4	R-101	Judaism and Foundations of Religion	4
ENG-254	American Literature: 1865 to Present	4	R-102	Christianity and Islam	4
ENG-255	American Literature: Topics in American Literature	4	R-103	Asian Religions	4
ESR-171	Environmental Science	4	R-204	History of Christianity	4
ESR-172	Environmental Science	4	R-210	World Religions	4
ESR-173	Environmental Science	4	SOC-204	Introduction to Sociology	4
G-101	General Geology	4	SOC-205	Social Stratification & Social Systems	4
G-102	General Geology	4	SOC-206	Institutions & Social Change	4
G-103	General Geology	4	SOC-225	Social Problems	4
G-201	General Geology	4	Z-201	General Zoology	4
G-202	General Geology	4	Z-202	General Zoology	4
G-203	General Geology	4	Z-203	General Zoology	4
GEO-100	Introduction to Physical Geography	4			
GEO-110	Cultural & Human Geography	4			
GEO-130	Introduction to Environmental Geography	4			
GEO-208	Geography of the United States & Canada	4			
GS-104	Earth System Science	4			
GS-105	Earth System Science	4			

## Careers

Career pathways include:

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

- wildlife and fisheries management
- wide range of related fields