

# BIOLOGY EMPHASIS, AS - WITH UNIVERSITY OF OREGON

Program Code: AS.UOBIOLOGY

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.

For information contact Tory Blackwell, 503-594-3646  
or [toryb@clackamas.edu](mailto:toryb@clackamas.edu), or Polly Schulz, 503-594-3358  
or [pollys@clackamas.edu](mailto:pollys@clackamas.edu)

## 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

### First Year

Fall Term		Credits
BI-221Z	Principles of Biology: Cells	5.00
CH-221	General Chemistry	5.00
WR-121Z	Composition I	4.00
<b>Credits</b>		<b>14</b>

### Winter Term

BI-222Z	Principles of Biology: Organisms	5.00
CH-222	General Chemistry	5.00
WR-122Z	Composition II	4.00
<b>Credits</b>		<b>14</b>

### Spring Term

BI-223Z	Principles of Biology: Ecology and Evolution	5.00
CH-223	General Chemistry	5.00
CS-120 or STAT-243Z	Survey of Computing or Elementary Statistics I	4.00
<b>Electives (p. 1)</b>		4.00
<b>Credits</b>		<b>18</b>

### Second Year

Fall Term		Credits
CH-241	Organic Chemistry I	5.00

MTH-251Z	Differential Calculus	4.00
PH-201	General Physics	5.00
<b>Electives (p. 1)</b>		3.00
<b>Credits</b>		<b>17</b>
<b>Winter Term</b>		
CH-242	Organic Chemistry II	5.00
MTH-252Z	Integral Calculus	4.00
PH-202	General Physics	5.00
<b>Credits</b>		<b>14</b>
<b>Spring Term</b>		
CH-243	Organic Chemistry III	5.00
PH-203	General Physics	5.00
<b>Electives (p. 1)</b>		3.00
<b>Credits</b>		<b>13</b>
<b>Total Credits</b>		<b>90</b>

## Electives

Any General Education course in the respective distribution areas of Arts & Letters or Social Sciences listed in the [AAOT](#)

## Careers

Career pathways include:

- pre-pharmacy
- pre-medical
- preveterinarian
- biological and zoology research fields
- wildlife and fisheries management
- wide range of related fields