### UAF Biological Sciences BS Program, No Concentration

**Catalog year 2018-19**

<table>
<thead>
<tr>
<th>General Education Requirement</th>
<th>BS Degree Requirement</th>
<th>Major Requirement</th>
<th>Open elective</th>
</tr>
</thead>
<tbody>
<tr>
<td>* Class with laboratory</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Fall

**Year 1**

- **BIOL F115X, Fundamentals Biology I**
- **CHEM F105X, General Chemistry**
- **WRTG 111X, Intro Writing**
- **GER Social Science**
- **Freshman Seminar**

**Spring**

- **BIOL F116, Fundamentals Biology II**
- **CHEM F106X, General Chemistry**
- **MATH 251X, Calculus**
- **COJO F131/141X, Oral Comm**
- **LS F101X, Library Science**

**Year 2**

- **BIOL F260, Princ Genetics**
- **PHYS F103X, College Physics**
- **WRTG F211/213, Acad Writing**
- **GER Humanities**
- **Open Elective**

**Year 3**

- **BIOL F371, Princ Ecology**
- **CHEM F321, Org Chem I**
- **STAT 200X, Statistics**
- **GER Social Science**
- **Open Elective**

**Year 4**

- **Biology Capstone**
- **Biology Elective - Organismal**
- **GER Arts, Hum, or Social**
- **Open Elective**

- **BIOL F481, Evolution**

---

This is an A94 of how a well-prepared student might complete the degree program in 4 years.
### UAF Biological Sciences BS Degree, Biomedical Science Concentration

**Catalog year 2018-19**

<table>
<thead>
<tr>
<th>General Education Requirement</th>
<th>BS Degree Requirement</th>
<th>Major Requirement</th>
<th>Concentration Requirement</th>
<th>Open elective</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Year 1

**Fall**
- BIOL F115X, Fundamentals Biology I*
- CHEM F105X, General Chemistry*
- WRTG 111X, Intro Writing
- SOC F101X Intro Sociology
- Freshman Seminar

**Spring**
- BIOL F116, Fundamentals Biology II*
- CHEM F106X, General Chemistry*
- MATH 251X, Calculus
- COJO F131/141X, Oral Comm
- LS F101X, Library Science

### Year 2

**Fall**
- BIOL F260, Princ Genetics*
- PHYS F103X, College Physics*
- WRTG F211/213, Acad Writing
- PSY 101X, Intro Psychology

**Spring**
- BIOL F310, Animal Physiology
- PHYS 104X, College Physics*
- GER Humanities

### Year 3

**Fall**
- CHEM F321, Organic Chem I*
- BIOL F402, Biomedical & Research Ethics*
- BIOL F412, Exercise Physiology*
- STAT 200X, Statistics
- Open Elective

**Spring**
- CHEM F325, Organic Chem II
- BIOL F342, Microbiology*
- BIOL F360, Cell & Molecular Biology
- GER Arts
- Open Elective

### Year 4

**Fall**
- Capstone Research Project*
- Biology breadth elective
- BIOL F465, Immunology*
- Ethics course
- Open Elective

**Spring**
- BIOL F481, Principles of Evolution*
- CHEM F351, Biochem Metabolism
- ECON F201X, Principles of Economic I
- Open Elective

---

This is an **example** of how a well-prepared student might complete the degree program in 4 years.

1 BIOL F310 may be replaced with the combination of BIOL F213X & F214X, Human Anatomy and Physiology

2This is an example; any course from the biomedical course list is acceptable
**UAF Biological Sciences BS Degree, Cell and Molecular Biology Concentration**

**Catalog year 2018-19**

<table>
<thead>
<tr>
<th>Year</th>
<th>Fall</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1</td>
<td>BIOL F115X, Fundamentals Biology I*</td>
<td>BIOL F116, Fundamentals Biology II*</td>
</tr>
<tr>
<td></td>
<td>CHEM F105X, General Chemistry*</td>
<td>CHEM F106X, General Chemistry*</td>
</tr>
<tr>
<td></td>
<td>WRTG 111X, Intro Writing</td>
<td>MATH 251X, Calculus</td>
</tr>
<tr>
<td></td>
<td>GER Social Science</td>
<td>COJO F131/141X, Oral Comm</td>
</tr>
<tr>
<td></td>
<td>Freshman Seminar</td>
<td>LS F101X, Library Science</td>
</tr>
<tr>
<td>Year 2</td>
<td>BIOL F260, Princ Genetics*</td>
<td>BIOL F360, Cell and Molecular Biology</td>
</tr>
<tr>
<td></td>
<td>PHYS F103X, College Physics*</td>
<td>Biology Elective - Breadth</td>
</tr>
<tr>
<td></td>
<td>WRTG F211/213, Acad Writing</td>
<td>PHYS 104X, College Physics*</td>
</tr>
<tr>
<td></td>
<td>GER Humanities</td>
<td>GER Arts</td>
</tr>
<tr>
<td></td>
<td>Open Elective</td>
<td>Open Elective</td>
</tr>
<tr>
<td>Year 3</td>
<td>Biology Elective - Cell or Physiology</td>
<td>Physiology course from list*</td>
</tr>
<tr>
<td></td>
<td>CHEM F321, Org Chem I*</td>
<td>Biology Elective - Cell or Physiology</td>
</tr>
<tr>
<td></td>
<td>STAT 200X, Statistics</td>
<td>CHEM F325, Org Chem II</td>
</tr>
<tr>
<td></td>
<td>GER Social Science</td>
<td>Ethics course</td>
</tr>
<tr>
<td></td>
<td>Open Elective</td>
<td>Open Elective</td>
</tr>
<tr>
<td>Year 4</td>
<td>Biology Capstone*</td>
<td>BIOL F481, Evolution*</td>
</tr>
<tr>
<td></td>
<td>CHEM F450, Biochem Macromolecules</td>
<td>CHEM F351, Biochem Metabolism</td>
</tr>
<tr>
<td></td>
<td>GER Arts, Hum, or Social</td>
<td>Open Elective</td>
</tr>
<tr>
<td></td>
<td>Open Elective</td>
<td>Open Elective</td>
</tr>
</tbody>
</table>

This is an example of how a well-prepared student might complete the degree program in 4 years.
### UAF Biological Sciences BS Program, Ecology and Evolutionary Biology Concentration

Catalog year 2018-19

<table>
<thead>
<tr>
<th>General Education Requirement</th>
<th>BS Degree Requirement</th>
<th>Major Requirement</th>
<th>Concentration Requirement</th>
<th>Open elective</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Class with laboratory</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Spring</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
</table>

#### Year 1

<table>
<thead>
<tr>
<th>Fall</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL F116, Fundamentals Biology II*</td>
<td>CHEM F106X, General Chemistry*</td>
</tr>
<tr>
<td>CHEM F105X, General Chemistry*</td>
<td>MATH 251X, Calculus</td>
</tr>
<tr>
<td>WRTG 111X, Intro Writing</td>
<td>COJO F131/141X, Oral Comm</td>
</tr>
<tr>
<td>GER Social Science</td>
<td>LS F101X, Library Science</td>
</tr>
<tr>
<td>Freshman Seminar</td>
<td></td>
</tr>
</tbody>
</table>

#### Year 2

<table>
<thead>
<tr>
<th>Fall</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL F260, Princ Genetics*</td>
<td>Physiology course from list*</td>
</tr>
<tr>
<td>PHYS F103X, College Physics*</td>
<td>STAT F200X, Statistics</td>
</tr>
<tr>
<td>WRTG F211/213, Acad Writing</td>
<td>PHYS F104X, College Physics*</td>
</tr>
<tr>
<td>GER Humanities</td>
<td>GER Arts</td>
</tr>
<tr>
<td>Open Elective</td>
<td>Open Elective</td>
</tr>
</tbody>
</table>

#### Year 3

<table>
<thead>
<tr>
<th>Fall</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL F371, Princ Ecology*</td>
<td>Biology Elective - Ecology/Evolution</td>
</tr>
<tr>
<td>STAT F401, Regression*</td>
<td>Biology Elective - Breadth</td>
</tr>
<tr>
<td>CHEM F321, Org Chem I*</td>
<td>CHEM F325, Org Chem II</td>
</tr>
<tr>
<td>GER Social Science</td>
<td>Ethics course</td>
</tr>
<tr>
<td>Open Elective</td>
<td>Open Elective</td>
</tr>
</tbody>
</table>

#### Year 4

<table>
<thead>
<tr>
<th>Fall</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ecology Capstone*</td>
<td>BIOL F481, Evolution*</td>
</tr>
<tr>
<td>Biology Elective - Organismal</td>
<td>Biology Elective</td>
</tr>
<tr>
<td>GER Arts, Hum, or Social</td>
<td>Open Elective</td>
</tr>
<tr>
<td>Open Elective</td>
<td>Open Elective</td>
</tr>
</tbody>
</table>

This is an example of how a well-prepared student might complete the degree program in 4 years.
UAF Biological Sciences BS Program, Physiology Concentration
Catalog year 2018-19

<table>
<thead>
<tr>
<th>General Education Requirement</th>
<th>BS Degree Requirement</th>
<th>Major Requirement</th>
<th>Concentration Requirement</th>
<th>Open elective</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>* Class with laboratory</td>
</tr>
</tbody>
</table>

**Fall**

**Year 1**
- BIOL F115X, Fundamentals Biology I*
- CHEM F105X, General Chemistry*
- WRTG 111X, Intro Writing
- GER Social Science
- Freshman Seminar

**Year 2**
- BIOL F260, Princ Genetics*
- PHYS F103X, College Physics*
- WRTG F211/213, Acad Writing
- GER Humanities
- Open Elective

**Year 3**
- Biology Elective - Physiology
- CHEM F321, Org Chem I*
- STAT 200X, Statistics
- GER Social Science
- Open Elective

**Year 4**
- Biology Capstone*
- Biology Elective - Breadth
- GER Arts, Hum, or Social
- Open Elective

**Spring**

**Year 1**
- BIOL F116, Fundamentals Biology II*
- CHEM F106X, General Chemistry*
- MATH 251X, Calculus
- COJO F131/141X, Oral Comm
- LS F101X, Library Science

**Year 2**
- BIOL F360, Cell and Molecular Biology
- Biology Elective
- PHYS 104X, College Physics*
- GER Arts
- Open Elective

**Year 3**
- Biology Elective - Cell or Physiology
- CHEM F325, Org Chem II
- Ethics course
- Open Elective

**Year 4**
- BIOL F481, Evolution*
- Biology Elective - Physiology
- Biology Elective - Breadth
- Open Elective
- Open Elective

This is an example of how a well-prepared student might complete the degree program in 4 years.