## 2018/2019 NAU-Yuma Bachelor of Science
### Biological and Ecological Sciences

**Imperial Valley College Associate in Science - General Science**

### Advising Sheet

<table>
<thead>
<tr>
<th>REQUIRED LOWER DIVISION MAJOR COURSES</th>
<th>Term Completed</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 180 General Biology: Molecules, Cells and Genetics 4 units</td>
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<tr>
<td>BIOL 182 General Biology: Principles of Organismal Biology 4 units</td>
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<tr>
<td>CHEM 200 General Inorganic Chemistry I 5 units</td>
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<tr>
<td>CHEM 202 General Inorganic Chemistry II 5 units</td>
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<tr>
<td>CHEM 204 Organic Chemistry I 5 units</td>
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<td></td>
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<tr>
<td>MATH 192 Calculus I 4 units</td>
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<td></td>
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<tr>
<td>PHYS 200 General Physics I 4 units</td>
<td></td>
<td></td>
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<tr>
<td>PHYS 202 General Physics II 4 units</td>
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<tr>
<td>CHEM 206 is recommended: Organic Chemistry II</td>
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**INTERSEGMENTAL GENERAL EDUCATION TRANSFER CURRICULUM (IGETC-NAU)**

### AREA 1 – ENGLISH COMMUNICATION

- ENGL 110 Composition and Reading 4 units
- ENGL 201 Advanced Composition 3 units

### AREA 2 – MATHEMATICAL CONCEPTS AND QUANTITATIVE REASONING

- Math 192 Calculus I 4 units Major Prep

### AREA 3 – ARTS AND HUMANITIES (3 courses with at least 1 course from Arts and 1 course from Humanities)

- IGETC 3A – Arts course
- IGETC 3B – Humanities: HIST 101 (G) or HIST/LAS 131 (G) or HIST/LAS 132 (E) or RELS 100 (G) 3 units
- IGETC 3A or 3B course 3 units

### AREA 4 – SOCIAL AND BEHAVIORAL SCIENCES (3 courses from at least 2 different academic disciplines)

- ADS/SOC 150 (E) Recommended or ANTH 102 (G) or AnS/ANTH 106 (E) or HIST 101 (G) or HIST/LAS 131 (G) or HIST/LAS 132 (E) 3 units
- IGETC Social and Behavioral Sciences course 3 units
- IGETC Social and Behavioral Sciences course 3 units

### AREA 5 – PHYSICAL AND BIOLOGICAL SCIENCES (Minimum 7-9 units with at least one lab course)

- CHEM 100 Introduction to Chemistry 4 units
- BIOL 180 General Biology: Molecules, Cells and Genetics 4 units Major Prep

**IVC GRADUATION REQUIREMENTS: GENERAL SCIENCE &/OR UNIVERSITY STUDIES: SCIENCE & MATH WITH IGETC-CSU**

- POLS 102 American Government and Politics; IGETC Area 4 course 3 units
- HIST 120 or HIST 121 United States History: Prehistory to Reconstruction or United States History: Reconstruction to the Present; IGETC Area 4 course 3 units
- HE 102 Health Education 3 units
- PE 100 Lifetime Exercise Science 2 units
- Physical Education Activity course 1 unit

**NAU Additional Information:**

- IGETC-NAU: Complete one (E) Ethnic and one (G) Global recommended course in order to meet NAU’s Diversity Requirements.
- NAU accepts 64 transferable units that can be applied to meet the NAU degree unit requirement.
Bachelor of Science Biological and Ecological Sciences  
2018-2019 Undergraduate Catalog (120 Units)  
(Upper Division Coursework)

The Biological and Ecological Sciences degree encompasses numerous cutting-edge disciplines. Each offers a multitude of exciting career paths. You can also train to teach biology in secondary or primary schools. You can prepare for admission to graduate, medical, dental, or veterinary school, or for other professional training.

### MAJOR COURSES

<table>
<thead>
<tr>
<th>COURSE NUMBER</th>
<th>COURSE TITLE</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 181/L</td>
<td>Unity of Life I: The Life of the Cell/Lab (BIOL 180 at IVC)</td>
<td>4</td>
</tr>
<tr>
<td>BIO 182/L</td>
<td>Unity of Life II: Lives of Multicellular Organisms/Lab (BIOL 182 at IVC)</td>
<td>4</td>
</tr>
<tr>
<td>BSC 326/326LW</td>
<td>Ecology: Ecology Lab</td>
<td>4</td>
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<tr>
<td>BSC 350/350L</td>
<td>Classical and Molecular Genetics: Genetics Lab</td>
<td>4</td>
</tr>
<tr>
<td>BSC 408 or BSC 485</td>
<td>Fieldwork Experience OR Undergraduate Research</td>
<td>3</td>
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<tr>
<td>BSC 435C</td>
<td>Evolutionary Biology</td>
<td>3</td>
</tr>
<tr>
<td>BSC 460, BSC 460L or CHM 360, CHM 460LC</td>
<td>Principles of Biochemistry: Biochemistry Lab, or Fundamental Biochemistry; Biochemistry Lab</td>
<td>4</td>
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**PHYSICAL SCIENCE FOUNDATION REQUIREMENT:**

<table>
<thead>
<tr>
<th>COURSE NUMBER</th>
<th>COURSE TITLE</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHM 151/L</td>
<td>General Chemistry I/Lab (CHEM 200 at IVC)</td>
<td>4</td>
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<tr>
<td>CHM 152/L</td>
<td>General Chemistry II/Lab (CHEM 202 at IVC)</td>
<td>4</td>
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<tr>
<td>CHM 235/L</td>
<td>General Organic Chemistry I/Lab (CHEM 204 at IVC)</td>
<td>4</td>
</tr>
<tr>
<td>CHM 238 (recommended, not required)</td>
<td>General Organic Chemistry II/Lab (CHEM 206 at IVC)</td>
<td>4</td>
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</table>

**CHOOSE ONE OF THE FOLLOWING MATH COMBINATIONS:**

<table>
<thead>
<tr>
<th>COURSE NUMBER</th>
<th>COURSE TITLE</th>
<th>UNITS</th>
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</thead>
<tbody>
<tr>
<td>MAT 125 AND (STA 270 OR PSY 230) OR</td>
<td>Pre-calculus Mathematics (MATH 190 at IVC) and Statistics (MATH 119 at IVC)</td>
<td>4</td>
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<tr>
<td>MAT 136</td>
<td>Calculus I (MATH 192 at IVC)</td>
<td>4</td>
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**PHYSICS COMBINATION**

<table>
<thead>
<tr>
<th>COURSE NUMBER</th>
<th>COURSE TITLE</th>
<th>UNITS</th>
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</thead>
<tbody>
<tr>
<td>PHY 111 AND PHY 112</td>
<td>General Physics I</td>
<td>4</td>
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<tr>
<td>OR</td>
<td>General Physics II</td>
<td>4</td>
</tr>
<tr>
<td>PHY 161 AND PHY 262/L</td>
<td>University Physics I (PHYS 200 at IVC)</td>
<td>4</td>
</tr>
<tr>
<td>OR</td>
<td>University Physics II (PHYS 202 at IVC)</td>
<td>4</td>
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</tbody>
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At least 14 units of additional NAU course work: any 100 to 200 level BIO courses except BIO 100 or any BIO recitation. Any BSC course except 310; up to 6 hours from BIO 497. Up to 6 units of non-BIO prefix courses from the following: PSY 320, 350, 355, 370, 432

<table>
<thead>
<tr>
<th>Total NAU credits</th>
<th>56 credits</th>
</tr>
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<tbody>
<tr>
<td>General Electives</td>
<td>As needed to reach 120 credits</td>
</tr>
<tr>
<td>Total credits required to complete degree</td>
<td>120 credits</td>
</tr>
</tbody>
</table>

Program requirements are subject to change each year. Please see your NAU academic advisor for the most current information.