### ACADEMIC PROGRAM COMPLETION PLAN

**Advising/Sign-off Sheet**

**Biology Teaching Major**

Advisors: Denise Brenes 135 BLDG 44, 801-581-6244, email: advising@biology.utah.edu

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Student Name: ___________________________  Student’s ID#: __________________

Student’s Signature: ___________________________  Date: _______/_____/_____

Advisor’s Signature: ___________________________  Date: _______/_____/_____

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To Departmental Advisor: Please indicate below which courses the above-named student has completed in fulfillment of Teaching Major/Minor requirements. After signing the form, please returning it to the student.

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**Biology Teaching Major Courses**

<table>
<thead>
<tr>
<th>Sem</th>
<th>Year</th>
<th>Course</th>
<th>Grade</th>
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</thead>
<tbody>
<tr>
<td>BIOL</td>
<td></td>
<td>BIOL 1610 Fundamental Principles of Biology I: Cells, Genetics, and Biochemistry (4)</td>
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<tr>
<td></td>
<td></td>
<td>BIOL1615 Fundamental Principles of Biology Lab I: Cells, Genetics, and Biochemistry (1)</td>
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<td>BIOL1620 Fundamental Principles of Biology II: Evolution, Ecology and Physiology (4)</td>
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<td></td>
<td>BIOL1625 Fundamental Principles of Biology Lab II: Evolution and Diversity of Life (1)</td>
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**Biology Core**

Complete at least one of the following:

- BIOL 2020 Principles of Cell Biology (3)
- BIOL 2021 Principles of Cell Science (4)
- BIOL 2030 Genetics (3)

Complete at least one of the following:

- BIOL 2325 Human Anatomy (4)
- BIOL 2420 Human Physiology (4)

**Ecology & Environmental Biology**

- BIOL3410 Ecology and Evolution (3)

**Form & Function**

Complete at least one of the following:

- BIOL 3310 Comparative Vertebrate Morphology (3)
- BIOL 5350 Ornithology (3)
- BIOL 5370 Mammalogy (3)

Complete at least 1 of the following:

- BIOL 3510 Biological Chemistry I (3)
- CHEM 3510 Biological Chemistry I (3)

**Cellular and Molecular Biology Laboratory**

Complete at least one of the following:

- BIOL 3125 Molecular Tools for Evolutionary and Population Biology (3)
- BIOL 3215 Cell Biology Laboratory (2)
- BIOL 3235 Developmental Biology Laboratory (3)
- BIOL 3246 Basic Cellular Neurobiology Lab (2)
- BIOL 3515 Biological Chemistry Laboratory (3)

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Updated 6/2021
| BIOL 3525 Molecular Biology of DNA Lab (3) |
| BIOL 4955 Individual Research (1-3)* can only be counted once towards lab requirement |

### Environmental and Organismal Biology Laboratory

Complete at least one of the following:
- BIOL 2355 Field Botany (2)
- BIOL 2425 Human Physiology Laboratory (1)
- BIOL 3125 Molecular Tools for Evolutionary and Population Biology (3)
- BIOL 3246 Basic Cellular Neurobiology Lab (2)
- BIOL 3325 Comparative Physiology Laboratory (3)
- BIOL 4955 Individual Research (1-3)* can only be counted once towards lab requirement

### Biology Electives

**BIOL** Earned at least 3 credits from BIOL 3000 - 5999

Only 1 occurrence of BIOL 4955 - Individual Research or BIOL 4995 - Biology Honors Research may be used.

### Advanced or Applied Chemistry Elective

Complete at least one of the following:
- BIOL 3520 Biological Chemistry II (3)
- GEO 2100 Reactive Earth (3)
- Other approved Chem course (3)

### Science Electives – complete approved science or earth science electives to meet requirement for 69 credits

### Science Teaching Courses

**EDU** Complete at least one of the following:
- EDU 5170 Secondary Science Methods (3)
- EDU 5375 Science Methods (3)
- ED PS3721 Child Dev. and Learning: Understanding Adolescents Grades 7 - 12 (3)
- Complete one: ETHNC 2550-2590
- ECS 2150 or SCI 3900
- ECS 5709

### Math Requirements

**MATH** Complete at least one of the following:
- MATH 1170 Calculus for Biologists I (4)
- MATH 1210 Calculus I (4)
- MATH 1250 Calculus for AP Students I (4)
- MATH 1180 Statistics with Calculus for Biologists (4)
- MATH 1220 Calculus II (4)
- MATH 1260 Calculus for AP Students II (4)

### Physics Requirements

**PHYS** Complete at least one of the following:
- PHYS 2010 General Physics I (4)
- PHYS 2210 Physics for Scientists and Engineers I (4)
- PHYS 3210 Physics for Scientists I (4)
Complete at least one of the following:
PHYS 2020 General Physics II (4)
PHYS 2220 Physics for Scientists and Engineers II (4)
PHYS 3220 Physics for Scientists II (4)

**Chemistry Requirements**

| CHEM | Complete at least one of the following:  
|      | CHEM 1210 General Chemistry I (4)  
|      | CHEM 1211 Honors General Chemistry I (4)  
|      | Complete at least one of the following:  
|      | CHEM 1215 General Chemistry Laboratory I (1)  
|      | CHEM 1070 Advanced Placement (High School) General Chemistry Laboratory I (1)  
|      | Complete at least one of the following:  
|      | CHEM 1220 General Chemistry II (4)  
|      | CHEM 1221 Honors General Chemistry II (4)  
|      | Complete at least one of the following:  
|      | CHEM 1225 General Chemistry Laboratory II (1)  
|      | CHEM 1080 Advanced Placement (High School) General Chemistry Laboratory II (1)  
|      | Complete at least one of the following:  
|      | CHEM 2310 Organic Chemistry I (4)  
|      | CHEM 2311 Honors Organic Chemistry I (4)  |

Courses for Secondary Education Licensure must be completed with a grade of “B-“ or better beginning fall 2020. Education and prerequisite courses completed prior to fall 2020 must be completed with a grade of “C” or better. Major/minor courses must be completed with a grade of “C” or better unless departmental grade requirements are higher.

Candidates for Secondary Education Licensure are required to earn a minimum “C” grade and maintain a 3.0 cumulative G.P.A. in all licensure coursework.

Course Substitutions: If a course that is a requirement for the major is not available, the department reserves the right to substitute another course to fulfill that requirement. For any questions regarding Quarter to Semester course equivalencies, see the advisor.

**Note:** This academic completion plan ONLY lists those courses that are required for your MAJOR.

It DOES NOT include General Education or Bachelor’s Degree requirements which are also components to completing your degree. Please refer to your DARS report to make sure you are on track for these requirements. For licensure requirements, please contact the Secondary Education advisor.