

# SECONDARY SCIENCE ENDORSEMENT APPLICATION - BIOLOGY PATHWAY

Application for the Utah State Board of Education

## **APPLICANT INFORMATION**

Name: \_\_\_\_\_ CACTUS ID#: \_\_\_\_\_

E-mail: \_\_\_\_\_

## **PURPOSE**

This application allows an educator to apply for the Biology Pathway Secondary Science Endorsements which includes the Science Core, Biology 1, and the Biology 2 endorsements. This application can be used to apply for one, two, or all three endorsements

### **Science Core Endorsement**

This endorsement, when attached to a current Educator License, verifies that the individual has the skills and knowledge necessary to teach students three-dimensionally in a secondary science classroom and is required to teach Middle School Science Courses in Grades 6, 7, or 8. Additionally, this endorsement is required as a prerequisite to earn any high school Level-1 or Level-2 content specific science endorsement.

### **Biology 1 Endorsement**

This endorsement, when attached to a current Secondary Education License, verifies that the individual has the skills and knowledge necessary to teach students in a secondary life science classroom and is required to teach High School (9-12) General Biology Courses (Including Honors) and the High School Botany, Genetics, Zoology, and Marine Biology Elective Courses. This endorsement is required as a prerequisite to earn Secondary Biology 2 which is required for Advanced Biology (AP, CE, and IB) and other high school life science elective courses.

### **Biology 2 Endorsement**

This endorsement, when attached to a current Secondary Education License, verifies that the individual has the skills and knowledge necessary to teach students in an advanced secondary life science classroom and is required to teach Advanced Biology (AP, CE, and IB) and some high school life science elective courses. Those with

this endorsement can also teach all the courses a Biology 1 endorsed educator can teach. NOTE: Advanced biology (AP, CE, and IB) courses may also include additional requirements in order to be approved by the university or college board to teach.

### **ENDORSEMENT LEVEL**

Professional endorsements will be awarded when all the requirement areas for that endorsement are met, including the prerequisite professional endorsements requirement areas. An associate endorsement will be awarded if one of the following options are completed for that endorsement as outlined below:

- Science Core
  - Complete at least 3 of the 7 requirement areas.
- Biology 1 Endorsement
  - Holds Professional Science Core endorsement
  - Major/Minor in Biology
  - Completed at least 5 of the 12 requirement areas
- Biology 2
  - Holds Professional Biology 1 Endorsement
  - Major in Biology
  - Completed at least 6 of the 14 requirement areas.

### **PRELIMINARY QUESTIONS**

**Endorsements Applying For:** Which endorsements and endorsement level are you applying for? (Select all that apply)

- Associate Science Core
- Professional Science Core
  
- Associate Biology 1
- Professional Biology 1
  
- Associate Biology 2
- Professional Biology 2

**Science Core Endorsement:** A professional Science Core Endorsement meets requirement areas 1-7 of the Biology Endorsement Pathway. Do you have a Professional Science Core Endorsement?

- Yes, year completed \_\_\_\_\_
- No

**Elementary Science Endorsement:** A professional Elementary Science Endorsement meets requirement area 5 of the Biology Endorsement Pathway. Do you have a Professional Elementary Science Endorsement?

- Yes, Year Completed\_\_\_\_\_
- No.

**Biology 1 Endorsement:** A professional Biology 1 Endorsement meets requirement areas 8-12 of the Biology Endorsement Pathway. Do you have a Professional Biology 1 Endorsement?

- Yes, Year Completed\_\_\_\_\_
- No.

**Middle School Praxis Exam:** Did you pass the Middle School Science Praxis exam (5442) with a score of 152 or higher? Note: Praxis exam IS NOT required, but is one way to demonstrate competency for requirement areas 1-4.

- No
- Yes Score: \_\_\_\_\_ Year Taken: \_\_\_\_\_
- I passed an equivalent exam. Test Name: \_\_\_\_\_

**Middle Grades NES Test:** Did you pass the Middle Grades General Science (205) NES Test with a score of 220 or higher? Note: NES exam IS NOT required, but is one way to demonstrate competency for requirement areas 1-4.

- No
- Yes Score: \_\_\_\_\_ Year Taken: \_\_\_\_\_

**Biology Praxis Exam:** Did you pass the Biology Praxis exam (5236) with a score of 148 or higher? Note: Praxis exam IS NOT required, but is one way to demonstrate competency for requirement areas 8-12.

- No
- Yes Score: \_\_\_\_\_ Year Taken: \_\_\_\_\_
- I passed an equivalent exam. Test Name: \_\_\_\_\_

**Biology NES Test:** Did you pass the Biology (316) NES Test with a score of 220 or higher? Note: NES exam IS NOT required, but is one way to demonstrate competency for requirement areas 8-12.

- No
- Yes Score: \_\_\_\_\_ Year Taken: \_\_\_\_\_

**College Major or Minor:** Do you have a degree major or minor in Biology, Biology Education, or a Biology Variation (e.g., Microbiology, Ecology, Wildlife Biology, Physiology, Genetics, Evolutionary Biology)? Note: A degree major/minor IS NOT required but is one way to demonstrate competency for several requirement areas.

- No
- Yes. University: \_\_\_\_\_ Major or minor? \_\_\_\_\_  
Major/minor name: \_\_\_\_\_ Year: \_\_\_\_\_

**Teaching Experience and Professional Learning:** Have you taught either AP Biology or IB Biology for 3 years and attended the associated Professional Learning (i.e. AP Biology Summer Institute or IB DP Biology Workshop) with at least 2 years of teaching the course after the professional learning? Note: Teaching Experience and Professional Learning is NOT required but is one way to demonstrate competency for requirement areas 13 & 14.

- No
- Yes, I taught AP Biology for 3 years and attended 1 Biology Summer Institute
- Yes, I taught IB Biology for 3 years and attended 1 IB Biology Workshop

Course name: \_\_\_\_\_

Location: \_\_\_\_\_ Dates: \_\_\_\_\_

(\*Attach documentation of completion)

## ENDORSEMENT REQUIREMENT AREAS

Use the checkboxes below to indicate how each requirement area in the Biology Endorsement pathway has been met. Only one demonstration of competency is needed per requirement area. For more information about the requirement areas, please see the [Science Core Endorsement Specs](#) for requirement areas 1-7, the [Biology 1 Endorsement Specs](#) for requirement areas 8-12 and the [Biology 2 Endorsement Specs](#) for requirement areas 13 and 14.

### Science Core Requirement Areas

#### 1. Earth Science Content Knowledge

- Professional Science Core Endorsement
- University Course in General Earth Science, Astronomy, Geology, or Meteorology

University: \_\_\_\_\_ Course code: \_\_\_\_\_

Course name: \_\_\_\_\_ Semester/Year: \_\_\_\_\_ Grade: \_\_\_\_\_

- Middle School Science Praxis Exam Passed
- Middle Grades General Science NES Test Passed

#### 2. Life Science Content Knowledge

- Professional Science Core Endorsement
- University Course in General Biology

University: \_\_\_\_\_ Course code: \_\_\_\_\_

Course name: \_\_\_\_\_ Semester/Year: \_\_\_\_\_ Grade: \_\_\_\_\_

- Middle School Science Praxis Exam Passed
- Middle Grades General Science NES Test Passed

#### 3. Chemistry Content Knowledge

- Professional Science Core Endorsement
- University Course in General Chemistry

University: \_\_\_\_\_ Course code: \_\_\_\_\_

Course name: \_\_\_\_\_ Semester/Year: \_\_\_\_\_ Grade: \_\_\_\_\_

- Middle School Science Praxis Exam Passed
- Middle Grades General Science NES Test Passed

#### 4. Physics Content Knowledge

- Professional Science Core Endorsement
- University Course in General Physics

University: \_\_\_\_\_ Course code: \_\_\_\_\_

Course name: \_\_\_\_\_ Semester/Year: \_\_\_\_\_ Grade: \_\_\_\_\_

- Middle School Science Praxis Exam Passed
- Middle Grades General Science NES Test Passed

#### 5. Three-Dimensional Science & Engineering Pedagogical Knowledge

- Professional Science Core Endorsement
- University Course in Three-Dimensional Science and Engineering Pedagogy

University: \_\_\_\_\_ Course code: \_\_\_\_\_

Course name: \_\_\_\_\_ Semester/Year: \_\_\_\_\_ Grade: \_\_\_\_\_

- Have a Professional Elementary Science Endorsement
- Microcredential Stack - [Three-Dimensional Science and Engineering](#)  
(\*Must include MIDAS Transcript)
- Approved USBE or District Course

Course name: \_\_\_\_\_ Year: \_\_\_\_\_

(\*Must include MIDAS Transcript or other Documentation of Completion)

#### 6. Science Education Teaching & Dispositions Knowledge

- Professional Science Core Endorsement
- University Course in Teaching Methods in Science

University: \_\_\_\_\_ Course code: \_\_\_\_\_

Course name: \_\_\_\_\_ Semester/Year: \_\_\_\_\_ Grade: \_\_\_\_\_

- Microcredential Stack - [Science Teaching Methods](#)  
(\*Must include MIDAS Transcript)

## 7. Science Classroom Lab Safety Knowledge

- Professional Science Core Endorsement
- University Course in Classroom Lab Safety

University: \_\_\_\_\_ Course code: \_\_\_\_\_

Course name: \_\_\_\_\_ Semester/Year: \_\_\_\_\_ Grade: \_\_\_\_\_

- Flinn Safety Certificate, District approved Safety Course, USBE Approved Safety Course

Course name: \_\_\_\_\_ Year: \_\_\_\_\_

(\*Must include MIDAS Transcript or other Documentation of Completion)

## Biology 1 Requirement Areas

## 8. Biological Molecules Content Knowledge

- Professional Biology 1 Endorsement
- University Course in Molecular Biology

University: \_\_\_\_\_ Course code: \_\_\_\_\_

Course name: \_\_\_\_\_ Semester/Year: \_\_\_\_\_ Grade: \_\_\_\_\_

- College Major or Minor in Biology, Biology Education, or a Biology Variation
- Biology Praxis Exam Passed
- Biology NES Test Passed

## 9. Organisms Content Knowledge

- Professional Biology 1 Endorsement
- University Course in General Biology II, Zoology, or Botany

University: \_\_\_\_\_ Course code: \_\_\_\_\_

Course name: \_\_\_\_\_ Semester/Year: \_\_\_\_\_ Grade: \_\_\_\_\_

- College Major or Minor in Biology, Biology Education, or a Biology Variation
- Biology Praxis Exam Passed
- Biology NES Test Passed

### **10. Ecosystems Content Knowledge**

- Professional Biology 1 Endorsement
- University Course in Ecology

University: \_\_\_\_\_ Course code: \_\_\_\_\_

Course name: \_\_\_\_\_ Semester/Year: \_\_\_\_\_ Grade: \_\_\_\_\_

- College Major or Minor in Biology, Biology Education, or a Biology Variation
- Biology Praxis Exam Passed
- Biology NES Test Passed

### **11. Heredity Content Knowledge**

- Professional Biology 1 Endorsement
- University Course in Genetics

University: \_\_\_\_\_ Course code: \_\_\_\_\_

Course name: \_\_\_\_\_ Semester/Year: \_\_\_\_\_ Grade: \_\_\_\_\_

- College Major or Minor in Biology, Biology Education, or a Biology Variation
- Biology Praxis Exam Passed
- Biology NES Test Passed

### **12. Biological Evolution Content Knowledge**

- Professional Biology 1 Endorsement
- University Course in Evolutionary Biology

University: \_\_\_\_\_ Course code: \_\_\_\_\_

Course name: \_\_\_\_\_ Semester/Year: \_\_\_\_\_ Grade: \_\_\_\_\_

- College Major or Minor in Biology, Biology Education, or a Biology Variation
- Biology Praxis Exam Passed
- Biology NES Test Passed

## **Biology 2 Requirement Areas**

### **13. Advanced Data Analysis Content Knowledge**

- University Course in General or Applied Statistics

University: \_\_\_\_\_ Course code: \_\_\_\_\_

Course name: \_\_\_\_\_ Semester/Year: \_\_\_\_\_ Grade: \_\_\_\_\_

- College Major in Biology, Biology Education, or a Biology Variation
- Teaching Experience with AP/IP Biology and Professional Learning



#### 14. Advanced Life Science Content Knowledge

- Two University Courses in any two of the following Advanced/Applied Life Science course options (In addition to the life science courses used to earn the Secondary Biology 1 Endorsement). At least one must include an extra 1.0 Credit lab experience:
  - Cell Biology Or Microbiology
  - Anatomy and/or Physiology
  - Biotechnology
  - Wildlife Biology OR an advanced course focused on Zoology/Botany
  - Other upper division (3000+) biology course

University: \_\_\_\_\_ Course code: \_\_\_\_\_

Course name: \_\_\_\_\_ Semester/Year: \_\_\_\_\_ Grade: \_\_\_\_\_

University: \_\_\_\_\_ Course code: \_\_\_\_\_

Course name: \_\_\_\_\_ Semester/Year: \_\_\_\_\_ Grade: \_\_\_\_\_

- College Major in Biology, Biology Education, or a Biology Variation
- Teaching Experience with AP/IP Biology and Professional Learning

#### APPLICANT'S CERTIFICATIONS

- I certify that the information contained in this application is true.
- \*I have submitted any required documentation such as original transcripts, MIDAS transcripts, etc.
- I have sent electronic transcripts directly from the College/University clearinghouse to the USBE Licensing Department at [transcripts@schools.utah.gov](mailto:transcripts@schools.utah.gov).

#### APPLICATION SUBMISSION

Please submit application online in the Utah Educator Licensing Application system, [Survey Monkey Apply](https://usbelicensing.smapply.us) (<https://usbelicensing.smapply.us>)