

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 and the High School Botany, Genetics, Zoology, and Marine Biology Elective Courses. This endorsement is a prerequisite to earn the Biology 2 Endorsement.

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.

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 Endorsement
 - 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 Endorsement
 - Holds Professional Science Core and 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

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: _____
(Must include 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 descriptions of the competencies of each requirement area and their approved options, visit: [Biology Pathway Endorsement Specs](#).

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 (5442) passed with a score of 152+
- ☐ Middle Grades General Science NES Test (205) passed with a score of 220+
- ☐ Earth and Space Science PRAXIS Exam (5572) passed with a score of 148+
- ☐ Earth and Space Science NES Test (322) passed with a score of 220+

2. Life Science Content Knowledge

- ☐ Professional Science Core Endorsement
- ☐ University Course in General Biology

University: _____ Course code: _____

Course name: _____ Semester/Year: _____ Grade: _____

- ☐ College Major or Minor in Biology, Biology Education, or a Biology Variation
- ☐ Middle School Science PRAXIS Exam (5442) passed with a score of 152+
- ☐ Middle Grades General Science NES Test (205) passed with a score of 220+
- ☐ Biology PRAXIS Exam (5236) passed with a score of 148 or higher
- ☐ Biology NES Test (316) passed with a score of 220 or higher

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 (5442) passed with a score of 152+
- ☐ Middle Grades General Science NES Test (205) passed with a score of 220+
- ☐ Chemistry PRAXIS Exam (5246) passed with a score of 140 or higher
- ☐ Chemistry NES Test (321) passed with a score of 220 or higher

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 (5442) passed with a score of 152+
- ☐ Middle Grades General Science NES Test (205) passed with a score of 220+
- ☐ Physics PRAXIS Exam (5266) passed with a score of 140 or higher
- ☐ Physics NES Test (323) passed with a score of 220 or higher

5. Three-Dimensional Science & Engineering Pedagogical Knowledge

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

University: _____ Course code: _____

Course name: _____ Semester/Year: _____ Grade: _____

- ☐ Approved USBE or District Course

Course name: _____ Year: _____

(Must include USBE Altitude Transcript)

- ☐ LEA Certification of Competency (Must include completed [Demonstration of Three-Dimensional Science & Engineering Pedagogical Knowledge Rubric](#))

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: _____

- ☐ Approved USBE or District Course

Course name: _____ Year: _____

(Must include USBE Altitude Transcript)

- ☐ LEA Certification of Competency (Must include completed [Demonstration of Science Education Teaching & Dispositions Knowledge Rubric](#))

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 Scientific's Laboratory Safety Course for Teachers](#)
(Must include Certificate of Completion)

- ☐ Approved USBE or District Laboratory Safety Course

Course name: _____ Year: _____

(Must include USBE Altitude Transcript)

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 (5236) passed with a score of 148 or higher
- ☐ Biology NES Test (316) passed with a score of 220 or higher

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 (5236) passed with a score of 148 or higher
- ☐ Biology NES Test (316) passed with a score of 220 or higher

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 (5236) passed with a score of 148 or higher
- ☐ Biology NES Test (316) passed with a score of 220 or higher

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 (5236) passed with a score of 148 or higher
- ☐ Biology NES Test (316) passed with a score of 220 or higher

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 (5236) passed with a score of 148 or higher
- ☐ Biology NES Test (316) passed with a score of 220 or higher

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 Biology 1 Endorsement):
 - Cell Biology Or Microbiology
 - Anatomy and/or Physiology
 - Biotechnology
 - Wildlife Biology OR an advanced Zoology/Botany course
 - 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

APPLICATION SUBMISSION INSTRUCTIONS

Please submit this application online in the Utah Educator Licensing Application system, [Survey Monkey \(SM\) Apply](#).

Any university coursework and/or degrees must be documented via an official transcript. Electronic transcripts can be sent from the College/University clearinghouse to the USBE Licensing Department at transcripts@schools.utah.gov. To check the transcripts USBE has on file for you, email licensing@schools.utah.gov. Visit [USBE's Transcripts Webpage](#) for more information.

Any additional documentation demonstrating completion (e.g. Altitude Transcripts, Pedagogy Rubrics, Content Knowledge Test Scores, etc) needs to be uploaded in SM Apply.