Utah State Board of Education

SECONDARY SCIENCE EDORSEMENT APPLICATION - PHYSICS 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 Physics Pathway Secondary Science Endorsements which includes the Science Core, Physics 1, and the Physics 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.

Physics 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 physical science classroom and is required to teach High School (9-12) General Physics Courses and the high school astronomy elective course. This endorsement is required as a prerequisite to earn Secondary Physics 2 which is required for Advanced Physics (AP, CE, and IB) courses.

Physics 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 physical science classroom and is required to teach Advanced Physics (AP, CE, and IB) courses. Those with this endorsement can also teach all the courses a Physics 1 endorsed educator can teach. NOTE: Advanced Physics (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.
- Physics 1 Endorsement
    - Holds Professional Science Core endorsement
    - Major/Minor in Physics
    - Completed at least 5 of the 11 requirement areas
- Physics 2
    - Holds Professional Physics 1 Endorsement
    - Major in Physics
    - Completed at least 6 of the 13 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 Physics 1
- ◯ Professional Physics 1
- ◯ Associate Physics 2
- ◯ Professional Physics 2

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

- ◯ Yes, Year Completed_____
- ◯ No.

Physics 1 Endorsement: A professional Physics 1 Endorsement meets requirement areas 8-11 of the Physics Endorsement Pathway. Do you have a Professional Physics 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: _____

Physics Praxis Exam: Did you pass the Physics Praxis exam (5266) with a score of 140 or higher? Note: Praxis exam IS NOT required, but is one way to demonstrate competency for requirement areas 8-11.

- ◯ No
- ◯ Yes Score: _____ Year Taken: _____
- ◯ I passed an equivalent exam. Test Name: _____

Physics NES Test: Did you pass the Physics (323) 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 8-11.

- ◯ No
- ◯ Yes Score: _____ Year Taken: _____

College Major or Minor: Do you have a degree major or minor in Physics, Physics Education, Physical Science Education, or a Physics Variation (e.g., Astrophysics, Theoretical Physics, Nuclear Physics)? 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 Physics or IB Physics for 3 years and attended the associated Professional Learning (i.e. AP Physics Summer Institute or IB DP Physics 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 12 &13.

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

Course name: _____

Location:_____ Dates: _____
(Fill out relevant courses below - *Attach documentation of completion)

ENDORSEMENT REQUIREMENT AREAS

Use the checkboxes below to indicate how each requirement area in the Physics Endorsement Pathway Endorsement 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 Physics 1 Endorsement Specs for requirement areas 8-11 and the Secondary Physics 2 Endorsement Specs for requirement areas 12 and 13.

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)

Physics 1 Requirement Areas

8. Kinematics, Dynamics, & Conservation Laws Content Knowledge

- [ ] Professional Physics 1 Endorsement
- [ ] University Course in General Physics 1

  University: _____ Course code: _____

  Course name: _____ Semester/Year: _____ Grade: ____
- [ ] College Major or Minor in Physics, Physics Education, Physical Science Education, or a Physics Variation
- [ ] Physics Praxis Exam Passed
- [ ] Physics NES Test Passed

9. Fields & Electromagnetism Content Knowledge

- [ ] Professional Physics 1 Endorsement
- [ ] University Course in General Physics 2

  University: _____ Course code: _____

  Course name: _____ Semester/Year: _____ Grade: ____
- [ ] College Major or Minor in Physics, Physics Education, Physical Science Education, or a Physics Variation
- [ ] Physics Praxis Exam Passed
- [ ] Physics NES Test Passed

10. Physics Laboratory Content Knowledge

- [ ] Professional Physics 1 Endorsement
- [ ] University Course in Physics Lab

  University: _____ Course code: _____

  Course name: _____ Semester/Year: _____ Grade: ____
- [ ] College Major or Minor in Physics, Physics Education, Physical Science Education, or a Physics Variation
- [ ] Physics Praxis Exam Passed
- [ ] Physics NES Test Passed

11. Waves & Their Applications in Technology

- [ ] Professional Physics 1 Endorsement
- [ ] University Course in one of the following 3 credit course options:
  - Modern Physics
  - Electricity and Magnetism
  - Waves, Acoustics, and Sound

  University: _____ Course code: _____

  Course name: _____ Semester/Year: _____ Grade: ____
- [ ] College Major or Minor in Physics, Physics Education, Physical Science Education, or a Physics Variation
- [ ] Physics Praxis Exam Passed
- [ ] Physics NES Test Passed

Physics 2 Requirement Areas

12. Advanced Quantitative Physics Reasoning Content Knowledge

- [ ] University Course in Calculus I

  University: _____ Course code: _____

  Course name: _____ Semester/Year: _____ Grade: ____
- [ ] College Major in Physics, Physics Education, or a Physics Variation
- [ ] Teaching Experience with AP/IP Physics and Professional Learning

13. Advanced Physics Content Knowledge

☐ Two University Courses in any two of the following Advanced/Applied Physics course options (In addition to the Waves and Their Applications in Technology Course used to earn the Secondary Physics 1 Endorsement):

- Astronomy or Astrophysics
- Electricity and Magnetism
- Mechanical Engineering
- Mechanics or Statics
- Modern Physics
- Thermodynamics
- Waves, Acoustics, and Sound
- Optics
- Upper division (3000+) physics course

University: _____ Course code: _____

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

University: _____ Course code: _____

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

☐ College Major in Physics, Physics Education, or a Physics Variation

☐ Teaching Experience with AP/IP Physics 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.

APPLICATION SUBMISSION

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