NEAG SCHOOL OF EDUCATION (UEDUC)   UNIVERSITY OF CONNECTICUT (UCONN)

PHYSICS EDUCATION PROGRAM GUIDELINES

BACHELOR OF SCIENCE IN EDUCATION (PHYS2 BS)

These guidelines summarize the requirements for a Bachelor of Science and partial completion of Connecticut certification requirements in physics education (7-12) for students following the 2022-2023 requirements.

DEGREE REQUIREMENTS

1. Complete the GENERAL EDUCATION REQUIREMENTS listed in the Academic Regulations of the University of Connecticut Undergraduate Catalog 2022-2023, which include two W courses (one must be 2000-level or above and associated with the student’s major), two Q courses (one Q course must be from Mathematics or Statistics), an Environmental Literacy course, and courses in Content Areas 1-4 (see catalog.uconn.edu for more information). In addition to the General Education Requirements, students must take a course in U.S. History (HIST 1501 or 1502) and PSYC 1100.

2. Complete a SUBJECT AREA MAJOR in Physics consisting of a minimum of thirty-six (36) credits in natural sciences courses at the 2000’s level or above. This includes a minimum of twenty-four (24) credits of 2000’s level or above courses completed in physics and closely related subject areas. Up to twelve (12) credits may be completed in related areas. Six (6) credits taken at the 1000’s level may be included with permission of the science education advisor.

   An adequate background in mathematics is also required.

3. Complete the following PROFESSIONAL EDUCATION REQUIREMENTS:

   EDCI 3100/W – Multicultural Education, Equity and Social Justice
   EPSY 3010 – Educational Psychology
   EGEN 3100 – Seminar/Clinic: The Student as Learner
   EPSY 3110 – Exceptionality
   EDCI 3213 – Introduction to Secondary Methods and Clinic – Science
   EDCI 4010 – Teaching Reading and Writing in the Content Areas
   EDCI 4210W – Instruction and Curriculum in the Secondary School
   EPSY 3125 – Classroom and Behavior Management
   EGEN 4100 – Seminar/Clinic: Methods of Teaching
   EPSY 4010 – Assessment of Learning
   EDCI 4250 – Directed Student Teaching
   EGEN 4110 – Seminar/Clinic: Analysis of Teaching

   Students must earn at least 120 credits.

MASTER OF ARTS IN CURRICULUM AND INSTRUCTION

To earn the University of Connecticut’s institutional recommendation for teacher certification, students must additionally successfully complete the requirements for the Master of Arts in Curriculum and Instruction including a minimum of thirty (30) credits (two full-time semesters) of graduate level course work. Requirements are anticipated to include at least:

Content Pedagogy: EDCI 5500 – Teaching Science in the Middle & Secondary School (3 credits)
Curriculum Electives and/or Graduate Liberal Arts: (6 credits)
Language and Cultural Diversity in Education: (3 credits)
Leadership: EDLR 5015 – Teacher Leadership and Organizations (3 credits)
Practicum: EDCI 5092 (3 credits fall) and EDCI 5093 (4 credits spring)
Seminar: EDCI 5094 (3 credits fall) and EDCI 5095 (3 credits spring)
Research: EPSY 5195 (1 credit fall and 1 credit spring)
Technology: EPSY 5221 – Wise Integration of Technology into Teaching and Learning Environments (1-3 credits)
## PHYSICS EDUCATION

### SAMPLE SEMESTER SEQUENCE

**SEMESTER 1**
- PHYS 1600Q – Modern Physics (Also fulfills CA 3) 4
- PSYC 1100 – Psychology (Also fulfills CA 3) 3
- MATH 1131Q – Calculus I 4
- ENGL 1007 or 1010 or 1011 or 2011 4

**SEMESTER 2**
- PHYS 1601Q – Fundamentals of Physics I 4
- Content Area 2 3
- MATH 1132Q – Calculus II 4
- HIST 1501 or 1502 – US History (Also fulfills CA 1) 3

### SUMMER SESSION

*LANGUAGE 8

**SEMESTER 3**
- PHYS 1602Q – Fundamentals of Physics II 4
- MATH 2110Q – Multivariable Calculus 4
- PHYS 2501W – Electricity, Magnetism, & Mechanics Lab 3
- Elective (PHIL 2212 – Philosophy of Science, suggested) 3
- EPSY 3010 – Educational Psychology 3

**SEMESTER 4**
- PHYS 2300 – Development of Quantum Mechanics 3
- MATH 2410Q – Elementary Differential Equations 3
- Content Area 2 3
- Content Area 4 3
- PHYS 3150 – Electronics 3

**SEMESTER 5**
- EPSY 3110 – Exceptionality (fall or spring junior year) 2
- Content Area 1 & 4 3
- EDCI 3213 – Intro. to Secondary Methods & Clinic 3
- EDCI 4010 – Teaching Reading & Writing in the Content Areas 2
- PHYS 4130 – Fundamentals of Planetary Science 3
- Subject Area Major (2000-level or above Math or Physics) 3

**SEMESTER 6**
- EPSY 3125 – Classroom and Behavior Management 3
- EDCI 3100/W – Multicultural Education, Equity & SJ 3
- MATH 3410 – Differential Equations for Applications 3
- PHYS 4150 – Optics 3
- PHYS 4210 – Introduction to Solid State Physics 3

**SEMESTER 7**
- EDCI 4250 – Directed Student Teaching 9
- EDCI 4010 – Assessment of Learning 2
- EGEN 4110 – Seminar/Clinic 3
- EDCI 4210W – Instruction & Curric. in Secondary School 3
- MATH 3410 – Differential Equations for Applications 3
- PHYS 4150 – Optics 3
- PHYS 4210 – Introduction to Solid State Physics 3

**SEMESTER 8**
- EGEN 3100 – Seminar/Clinic 3
- Diversity course (either semester) 3
- EDLR 5015 – Leadership (either semester) 3
- Elective 3-6

**SEMESTER 9 (Master’s)**
- EDCI 5092 - Practicum 3
- EDCI 5094 – Seminar 3
- EPSY 5221 – Wise Technology (either semester) 1-3
- Diversity course (either semester) 3
- EDLR 5015 – Leadership (either semester) 3
- Elective 3-6

**SEMESTER 10 (Master’s)**
- EDCI 5093 – Practicum 4
- EDCI 5095 – Seminar 3
- EPSY 5195 – Research Course 1
- EPSY 5221 – Wise Technology (either semester) 1-3
- Diversity course (either semester) 3
- EDLR 5015 – Leadership (either semester) 3
- Elective 3-6
- EDCI 5500 – Teaching Science in Middle & High School 3

*Required of all students not meeting the University requirements of three years of a single foreign language in high school.

**Students should take EPSY 3010 prior to semester 5, if possible, but no later than semester 6. The course is available fall, spring, summer and online."