Teacher Education - PHYSICS

The B.S. in Physics with Tennessee teaching licensure (Grades 6-12) is available with modifications to the Physics track and the King Core, and successful completion of the Secondary Education minor. Licensed teachers in secondary education are in great demand in all fifty states, and the areas of science, mathematics, English as a second language, and foreign languages are considered critical need areas in K-12 public education by all states.

Declaration of the minor and early and frequent advisement is essential to timely completion of degree and licensure requirements. Students seeking teacher licensure will be assigned a secondary education advisor in the Department of Teacher Education, in addition to their major advisor. See the “Admission to the Teacher Education Program” section of this catalog or contact the Administrative Assistant in School of Education for eligibility criteria, admissions procedures, and timelines.

Core Curriculum Requirements
Physics majors seeking teaching licensure should fulfill specified categories of the King Core Curriculum by taking the courses indicated below. See the “The Core Curriculum” section of the catalog for additional details.

Science
CHEM 1110
General Chemistry I.................................................................4 s.h.

Quantitative Literacy
MATH 2350
Calculus I .................................................................................4 s.h.

Literature/History
HUMN 2171
The Quest for a Meaningful Life I.................................4 s.h.
HUMN 2172
The Quest for a Meaningful Life II .........................4 s.h.

Human Creative Products
Choose from Core Curriculum options.................................4 s.h.

Human Culture
If language requirement is not met by proficiency, then a student must choose FREN/SPAN/GREK 2000 to satisfy requirement.

FREN 2000, SPAN 2000, GREK 2000
Intermediate Foreign Language......................................................4 s.h.

U.S. and Global Citizenship
Choose from Core Curriculum options.................................4 s.h.
BA in Physics Track Requirements for Teaching Licensure

PHYS 2210
General Physics I ................................................................. 4 s.h.

PHYS 2220
General Physics II ................................................................. 4 s.h.

PHYS 3010
Theoretical Mechanics .......................................................... 4 s.h.

PHYS 3030
Electricity and Magnetism ..................................................... 4 s.h.

PHYS 3060
Introduction to Modern Physics ............................................. 4 s.h

PHYS 3502
Experimental Methods ........................................................... 2 s.h.

PHYS 4201
Advanced Topics .................................................................. 2 s.h.

Choose from the following courses ........................................... 4 s.h.

BIOL 3600
Human and Mammalian Physiology (4 s.h.)

BIOL 3210
Human and Vertebrate Comparative Anatomy (4 s.h.)

BIOL 3500
Histology (4 s.h.)

Choose from the following courses ........................................... 4 s.h.

DMIS 2015
Introduction to Computer Science (4 s.h.)

MATH 1500
Cryptology: The Science of Secret Writing (4 s.h.)

MATH 2100
Programming with Graphics, Symbols, & Text (2 s.h.)

MATH 2480
History of Mathematics (2 s.h.)

MATH 3120
Number Theory (2 s.h.)

IDST 4500
Interdepartmental Science and Math seminar .......................... 2 s.h.

MATH 2360
Calculus II .............................................................................. 4 s.h.

TCOM 2200
Technical Communication ......................................................... 4 s.h.

Secondary Education Minor

EDUC 2030
Introduction to Teaching, K-Grade12 ................................. 2 s.h.

EDUC 2031
Introduction to Teaching Practicum, K-Grade 12 ................. 1 s.h.

EDUC 2100
Survey of Exceptional Children .............................................. 4 s.h.

EDUC 2370
Reflective Teaching: Planning for Classroom Instruction .... 3 s.h.

EDUC 2900
Foundations of Education ...................................................... 3 s.h.
EDUC 2950  
Technology for Teachers ......................................................... 2 s.h.
EDUC 3390*  
Secondary Curriculum and Methods ........................................... 3 s.h.
EDUC 3590*  
Content Area Reading ............................................................... 3 s.h.
EDUC 3600*  
Assessment and Evaluation ....................................................... 3 s.h.
PSCI 2120  
Cultural Diversity in America ................................................... 4 s.h.
PSYC 3320  
Adolescent Development ........................................................... 4 s.h.
EDUC 4490*  
Student Teaching, Grades 6-10.................................................... 5 s.h.
EDUC 4500*  
Student Teaching, Grades 9-12.................................................... 5 s.h.
EDUC 4950*  
Capstone Seminar, Grades K-12.................................................... 2 s.h.
EDUC 4990*  
Comprehensive Assessment (passing state-required  
Praxis II exams, successful portfolio completion, successful  
portfolio defense)............................................................................... 0 s.h.

* Requires admittance to the Teacher Education Program

Summary of Total Credits
Core Curriculum .............................................................................. 42 s.h.
Track Requirements ......................................................................... 42 s.h.
Secondary Education Minor ........................................................... 44 s.h.
Electives .......................................................................................... 2 s.h.
Minimum to Complete Licensure Program ..................................... 126 s.h.