PHYSICS 7-12, B.S.

The program outline and graduation requirements are listed below. In addition, free electives are selected to reach 120 credits overall and a 2.7 cumulative GPA is required for graduation.

The department website provides an overview of the program, admission requirements (when applicable), faculty biographies, learning outcomes, and careers: https://www.southernct.edu/academics/physics/programs

This is also a teacher/educator preparation program that prepares students for teacher certification in the state of Connecticut. For more information about admission to these programs, please visit Admissions>>Teacher/Educator Preparation Programs.

In addition, candidates recommended for certification must meet the requirements listed below and in effect on the date the CSDE receives the certification application. For more information about these additional CSDE requirements, please visit Degree Requirements>>Teacher/Educator Preparation Programs.

GENERAL EDUCATION REQUIREMENTS

All bachelor’s degree programs include liberal education (LEP) and writing (W) course requirements. To review more detailed information regarding these requirements, please visit Degree Requirements >>General Education (LEP) Requirements. Courses in the major and/or cognate may also be used to satisfy LEP requirements where noted below (*).

MAJOR REQUIREMENTS (57 Credits)

**Physics Requirements (30 Credits)**
PHY 230 — Physics for Scientists and Engineers I ('C-' or better)
PHY 231 — Physics for Scientists and Engineers II ('C-' or better)
PHY 309 — Modern Physics ('C-' or better)
PHY 370 — Modern Physics Laboratory ('C-' or better)
PHY 400 - Classical Mechanics I
PHY 406 - Electricity and Magnetism
PHY 461 — Methods in Physics Research
EGR 471 or PHY 471 - Capstone (T3)*
Select an additional 6 credits of PHY

Since all 100-level courses are introductory, a student may not receive credit for more than one of PHY 100, 101, 103, and 111.

**Education Requirements (27 Credits)**
EDU 316 - Child Development and Psychology for Educators ('C' or better)
EDU 413 – Secondary Education ('C' or better)
EDU 471 – Supporting English Learners for School Success ('C' or better)
RDG 470 – Literacy in the Content Areas ('C' or better)
SED 225 – Introduction to Exceptionalities ('C' or better)
SCE 490 – Science (Secondary School) ('C' or better)
SCE 494 – Student Teaching (Science)
SCE 496 – Student Teaching Seminar (Science)

COGNATE REQUIREMENTS (32 Credits)

CHE 120 – General Chemistry I (T2PR)*
CHE 121 – General Chemistry II
EDU 200 – Teachers, Schools, and Society ('C' or better) (T2CC)*
HIS 110 or HIS 111 – United States History I or II (T2AE)*
MAT 150 – Calculus I (T1QR)*
MAT 151 – Calculus II
MAT 252 – Calculus III
MAT 245 – Differential Equations
SHE 203 – School Health ('C' or better) (T2MB)*