Program Requirements

General Ed: Satisfactory completion of all general education requirements.
Major: Satisfactory completion of a major in Physics (plus the addition of PHYS 107) for a total of appx 41 sem hrs with the addition of 22 sem hrs of course work in related fields described below.
Education: Satisfactory completion of a minor in education (36 sem hrs) as described below. Prior to being admitted to the Teacher Education Program, the student must demonstrate Math competency by earning a grade of C- or higher in a 4 credit course that fulfills the general education quantitative reasoning requirement. (Course designated with a “Q”)

Requirements for AYA Licensure
All courses must be passed with a grade of C- or above. See the Academic Catalog for additional requirements for admission and continuation in the program. Courses may not be offered every year. Check the department schedules for course offerings.

Required in Education

Entry-Level Courses (Taken prior to application for teacher candidacy)

- EDUC 103S Sociological Perspectives in Education (4)
- EDUC 104R Philosophical Perspectives in Education (4)
- EDUC 105 Educational Psychology (2)
- EDUC 120 Introduction to Students with Special Needs (2) (Taken concurrently with EDUC 105)
- EDUC 213 Adolescent Development and Education (3)
- EDUC 214 Practicum: Middle/Secondary (1)

Advanced Courses (Taken following admission to teacher candidacy)

- EDUC 312 Reading & Writing in the Content Areas (3) Spring Only
- EDUC 331 Practicum: Literacy (1)
- EDUC 342 Including Students w/ Special Needs Middle/Secondary (2) Fall/Spring Even Years
- EDUC 348 Teaching Science in Secondary Schools (3) Fall Odd Years
- EDUC 388 Practicum: Science (1) Fall Odd Years

Student Teaching

Application for permission to student teach must be submitted early spring term of junior year. Other coursework, if taken, must be scheduled for late afternoon or evenings during the term.

- EDUC 495 Student Teaching (12)
- EDUC 496 Student Teaching Seminar (2)

Additional Requirement for Adolescent Young Adult Licensure

- Successful completion of the required licensure examinations.

Note: Any change(s) in this program of study must be approved by the Chairperson of the major department and the Director of Teacher Licensure, Wittenberg University.
Required in Physics  41 total hours

____ Phys 107    Astronomy  (4)
____ Phys 200    Mechanics and Waves  (5)
____ Phys 213    Thermodynamics and Optics  (2)
____ Phys 214    Intermediate Physics Laboratory  (1)
____ Phys 215    Special Relativity & Applications  (2)
____ Phys 218    Introductory Electromagnetism  (5)
____ Phys 220    Modern Physics  (5)
____ Phys 211    Classical Mechanics  (4)
____ Phys 313    Electronics  (2)
____ Phys 350    Advanced Physics Lab  (1)
____ Phys 360    Junior Seminar  (1)
____ Phys 460    Senior Seminar  (1)

4 additional sem hrs from the following courses

____ Phys 330    Statistical & Thermal Physics  (4)
____ Phys 332    Electromagnetism  (4)
____ Phys 411    Quantum Mechanics  (4)

4 additional sem hrs at the 300 level or above:

____ Phys 312    Wave Phenomena  (4)
____ Phys 314    Digital electronics  (2)
____ Phys 320    Computational Physics  (2)
____ Phys 321    Signal Processing  (2)
____ Phys 325    Topics in Contemporary Physics  (2)
____ Phys 330    Statistical & Thermal Physics  (4)
____ Phys 332    Electromagnetism  (4)
____ Phys 380    Topics (1-4)
____ Phys 410    Mathematical Physics  (4)
____ Phys 411    Quantum Mechanics  (4)
____ Phys 490    Independent Study (variable credit)
____ Phys 491    Internship (variable credit)
____ Phys 499    Senior Honors Thesis  (variable cr)

Required in Related Departments  22 sem hrs

Mathematics
____ Math 201    Calculus I  (4)
____ Math 202    Calculus II  (4)

Plus One Additional Math Course
____ Math 212    Multivariable Calculus  (4)  OR
____ Math 215    Differential Equations  (4)

Chemistry
____ Chem 121    Models of Chemical Systems  (5)

Biology
____ Biol 170    Concepts of Biology: Biological Information, Reproductions and Evolution  OR
____ Biol 180    Concepts of Biology: Energy and Resources in Biology  (5)