EAST CENTRAL UNIVERSITY
PHYSICS—PHYSICS CONCENTRATION 0350
2026-27 Catalog Year

Requirements for Bachelor's Degrees

- 30 hours at ECU
- 60 hours at senior level college
- 40 hours upper level courses
- OSRHE computer proficiency requirement

I. General Education 40 hours

A maximum of 12 hours may be applied to both the major/related work and general education.

II. Major in Physics 35 hours

A. Required in Physics Core 15 hours

- PHYS 2115 Engineering Physics I
- PHYS 2225 Engineering Physics II
- PHYS 3013 Modern Physics
- PHYS 3412 Junior Physics Laboratory

B. Required in Physics Major 18 hours

- PHYS 3113 Mechanics I
- PHYS 3713 Thermodynamics
- PHYS 3813 Optics
- PHYS 4113 Electricity and Magnetism- Field Theory
- PHYS 4313 Introduction to Nuclear Physics
- PHYS 4513 Quantum Mechanics

C. Required Electives 2 hours

Two hours Physics electives (3xxx-4xxx)

III. Related Work 27-33 hours

- CHEM 1114 General Chemistry I
- CHEM 1214 General Chemistry II
- CMPSC 1113 Computer Programming I
- MATH 1513 College Algebra †
- MATH 1713 Trigonometry †
- MATH 2825 Calculus and Analytic Geometry I
- MATH 3025 Calculus and Analytic Geometry II
- MATH 3033 Calculus and Analytic Geometry III

IV. Minor (Not Required)

V. Electives 22-28 hours

VI. Total Hours Required 120 hours

VII. Special Requirements

† With department approval, students may omit MATH 1513 and/or MATH 1713 and begin with MATH 2825

Teachers or methods courses do not count in the major.