

**EAST CENTRAL UNIVERSITY**  
**PHYSICS—MEDICAL PHYSICS CONCENTRATION 0353**  
2025-26 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 30 hours**

- A. Required in the 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 for Concentration in Medical Physics 15 hours
- PHYS 3222 Medical Physics
  - PHYS 3713 Thermodynamics
  - PHYS 4222 Xray and Nuclear Physics Lab
  - PHYS 4313 Introduction to Nuclear Physics
- C. Required Electives 2 hours
- Five hours Physics electives (3xxx-4xxx)

**III. Related Work 52-61 hours**

- BIOL 1114 General Biology
- BIOL 2184 Human Anatomy
- BIOL 3634 Human Physiology
- CHEM 1114 General Chemistry I
- CHEM 1214 General Chemistry II
- CHEM 3114 Organic Chemistry I
- CMPSC 1113 Computer Programming I
- COMM 1113 Fundamentals of Human Communication
- 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
- MATH 4113 Differential Equations

Select one of the following:

- BIOL 2113 Medical Terminology

- EHS 2413 Radiologic Health

Select one of the following:

- MATH 3513 Mathematical Statistics
- MATH 3583 Applied Statistics
- SOC 3833 Statistics for the Social Sciences

#### **IV. Minor (Not Required)**

#### **V. Electives 0-10 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.