

EAST CENTRAL UNIVERSITY
MATHEMATICS – APPLIED/PRE-ACTUARY CONCENTRATION 0294
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 counted in both the major/related work and general education.

II. Major in Applied Mathematics 46-52 hours

- A. Required Mathematics Core 22-28 hours
- MATH 1513 College Algebra*
 - MATH 1223 Intro to Prob & Statistics
 - MATH 1713 Trigonometry*
 - MATH 2825 Calculus & Analytical Geometry I
 - MATH 3025 Calculus & Analytical Geometry II
 - MATH 3033 Calculus & Analytical Geometry III
 - MATH 3713 Linear Algebra
 - MATH 4923 Perspectives in Mathematics
- B. Required for Applied/Pre-Actuary Concentration 9 hours
- MATH 3513 Mathematical Statistics
 - MATH 3583 Applied Statistics
 - MATH 4113 Differential Equations
- C. Electives 15 hours
- Two of the following:
- CPSMA 3913 Discrete Mathematics
 - CPSMA 3933 Operations Research
 - CPSMA 4413 Numerical Methods
 - Nine hours approved courses from MATH, CMPSC, CPSMA, MIS, MGMT, MKTG, BUSLW, or FIN (3000-4000)

III. Related Work 30 hours

- ACCT 2103 Financial Accounting
 - CMPSC 1113 Computer Programming I OR
 - Other computer programming course in a high level language
 - COMM 1113 Fundamentals of Human Comm
 - ECON 2003 Principles of Macroeconomics
 - ECON 2013 Principles of Microeconomics
 - ENG 3183 Technical and Professional Writing
 - FIN 3113 Financial Management
 - FIN 3913 Insurance Planning and Risk Mgmt
 - MIS 1903 Computer Business Application
 - MIS 3433 Management Information Systems
- *Three (3) hour Computer Course to meet Proficiency Req.

IV. Minor (Not Required)

V. Electives 10-16 hours

VI. Total Hours Required 120 hours

VII. Special Requirements

Teachers or methods courses do not count in the major.

*With departmental approval, students may omit MATH 1513 and MATH 1713 and begin with MATH 2825