# EAST CENTRAL UNIVERSITY
## MATHEMATICS – APPLIED/PRE-ACTUARY CONCENTRATION 0294
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 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