

East Central University
Mathematics- B.S.
Applied/Pre-Actuary Concentration

0294/UG24

Student Name:	Student ID #
30 hours at ECU completed	Advisor: _____
60 hours at Sr college completed	
40 hours upper level completed	OSRHE Computer Proficiency Requirement met

Requirements **Hours**

Courses highlighted in blue are general education courses.

I. General Education **40**

A maximum of twelve hours may be counted in both the major/related work and general education.

II. Major in Applied/Pre-Actuary Mathematics **46-52**

A. Required Mathematics Core **22-28**

MATH	1513	College Algebra †
MATH	1223	Intro to Probability and Statistics
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	3713	Linear Algebra
MATH	4923	Perspectives in Mathematics

C. Required for Concentration in Applied/Pre-Actuary Mathematics **9**

MATH	3513	Mathematical Statistics
MATH	3583	Applied Statistics
MATH	4113	Differential Equations

D. Required Mathematics Electives **15**

Two of the following:

CPSMA	3913	Discrete Mathematics
CPSMA	3933	Operations Research
CPSMA	4413	Numerical Methods

Nine hours approved courses from MATH, CMPSC, MIS, MGMT, MKTG, BUSLW, or FIN (3000-4000)

Requirements **Hours**

III. Related Work **30**

ACCT	2103	Financial Accounting
CMPSC	1113	Computer Programming I OR
other computer programming course in a high level language (logical, functional, or procedural, including Mathematica)		
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 Applications
MIS	3433	Management Information Systems

IV. Minor

Not Required

V. Electives **10-16**

An elective course is any college-level course not required by the degree that is utilized to reach the 120 credit hours required for degree completion. Elective courses are chosen according to the interest of the student and can be used in completion of a minor, certificate, or additional major.

VI. Total Hours Required **120**

VII. Special Requirements

Math 1413 "teachers" or "methods" courses will not be counted in the major.

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

Actuaries must pass a series of exams administered by the Society of Actuaries (SOA) in order to achieve professional status as an actuary. The first exam, Exam P, covers probability and supporting calculus topics. Pre-actuary students should take this exam after completing MATH 3513 Mathematical Statistics. The second exam, Exam FM, covers interest theory and financial economics. This exam should be taken after FIN 3113 Financial Management. Other SOA exams cover subjects such as risk and risk management.