

**EAST CENTRAL UNIVERSITY
MATHEMATICS - B.S.
APPLIED MATHEMATICS/PRE-ACTUARY CONCENTRATION
0294/UG11-UG12**

Name _____

Advisor _____

Student's Name _____ ID No. _____

DEGREE CHECK INCLUDES CURRENT ENROLLMENT

| | | |
|---|---------------------------------------|--|
| Checked by _____ Date _____ | Work in progress _____ | Work lacking: |
| Required: | 2.0 minimum required in the following | Major _____ (inc A/C and Related Work) |
| 124 total hours _____ completed | areas: | Minor _____ (incl Rel Wk) |
| 30 hrs @ ECU _____ completed | ECU Avg _____ Rtn Avg _____ | Prof Educ _____ |
| (15 of last 30 must be at ECU) _____ | Major Overall Avg _____ | General Educ _____ |
| 60 hrs @ Sr College _____ completed | Major ECU Avg _____ | Comp Prof _____ met _____ not met |
| 40 hrs upper level _____ completed | Minor Overall Avg _____ | Serv Lrng _____ met _____ not met |
| HS Curricular Req _____ met _____ not met | Minor ECU Avg _____ | |

REQUIREMENTS

HOURS

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HOURS

I. General Education (45 HOURS)

12 hours (COMM 1113 or 2253, CMPSC 1113, ECON 2003, and MATH 1513) counted in the Major
Other hours needed **33**

II. Concentration in Applied Math/Pre-Actuary 46-52

A. Required General Education 0-3

___ MATH 1513 College Algebra

B. Required Concentration 31-34

- ___ MATH 1713 Trigonometry
- ___ MATH 2213 Intro to Probability and Statistics
- ___ MATH 2825 Calculus and Analytic Geometry I
- ___ MATH 3025 Calculus and Analytic Geometry II
- ___ MATH 3033 Calculus and Analytic Geometry III
- ___ MATH 3513 Mathematical Statistics
- ___ MATH 3583 Applied Statistics
- ___ MATH 3713 Linear Algebra
- ___ MATH 4113 Differential Equations
- ___ MATH 4923 Perspectives in Mathematics

C. Required 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)

III. Related Work 30

A. Required General Education 9

- ___ COMM 1113 Fundamentals of Human Comm **OR**
- ___ COMM 2253 Communication in the Workplace
- ___ CMPSC 1113 Computer Programming I
OR other computer programming course in a high level language (logical, functional, or procedural, including Mathematica).
- ___ ECON 2003 Principles of Macroeconomics

B. Required Related Work 21

- ___ ACCT 2103 Financial Accounting
- ___ ECON 2013 Principles of Microeconomics
- ___ ENG 3183 Technical and Professional Writing
- ___ FIN 3113 Financial Management
- ___ FIN 3913 Principles of Insurance and Risk Mgmt
- ___ MIS 1903 Computer Business Application
- ___ MIS 3433 Management Information Systems

IV. Minor (Not Required)

V. Electives 9-15

VI. Total Hours Required 124

VII. Special Requirements

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

Note: Students who completed trigonometry in high school may, upon department approval, omit MATH 1713. Students who completed high school algebra II may, upon department approval, omit MATH 1513.

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.

The OSRHE computer proficiency graduation requirement will be met through completion of CMPSC 1113 (including equated or substituted courses), or testing out of the challenge exam for this course, OR successful completion of an associate of arts or associate of science degree at an Oklahoma two-year college in which the computer skills requirement was met. Satisfaction of this requirement may not reduce or remove any program requirements.

Students beginning at East Central University in the fall 2007 semester or later who have earned less than sixty-four semester hours are required to take two classes with designated service-learning component. Students transferring to ECU for the first time in the fall 2007 semester or later with sixty-four or more semester hours will be required to take one class with a service-learning component.
