## BACHELOR of SCIENCE in MATHEMATICAL ECONOMICS (#731) ACTUARIAL

Department of Mathematics/Department of Economics

Ogden College of Science and Engineering/Gordon Ford College of Business

Western Kentucky University

The suggested program of study shown below should be used in consultation with your advisor(s). Every student will finish with a unique plan of his/her own depending on the electives selected.

## Sample, Four Year Plan

Fall Semester		Spring Semester	
BA 170, Business Student Basics	1	Arts & Humanities (E-AH)	3
ENG 100, Introduction to College Writing (F-W1)	3	COMM 145, Fund Speaking (F-OC)	3
General University Elective	3	HIST 101 or 102, World History I or II (F-SB)	3
Arts & Humanities (E-AH)	3	Math 137, Calculus II	4
MATH 136, Calculus I (F-QR)	4	Natural & Physical Sciences with lab (E-SL)	3
TOTAL CREDIT HOURS	14	TOTAL CREDIT HOURS	16

Fall Semester		Spring Semester	
ACCT 200, Introductory Accounting, Financial	3	CS 170, Problem Solving and Programming <b>OR</b> CS 180, Computer Science I	3
Literary Studies (F-AH)	3	ECON 203, Principles of Economics, Macro (E-SB)	3
ECON 202, Principles of Economics, Micro (E-SB)	3	ECON 206, Statistics <b>OR</b> STAT 301, Prob/Applied Stat	3
MATH 307, Introduction to Linear Algebra	3	MATH 237, Multivariable Calculus	4
MATH 310, Introduction to Discrete Math	3	Natural & Physical Sciences (E-NS)	3
TOTAL CREDIT HOURS	15	TOTAL CREDIT HOURS	16

For more details and courses offered in the Colonnade General Education program visit the https://www.wku.edu/colonnade/.

Language Proficiency of novice-high before completing 60 credit hours is required (or completion of 2nd level of a language). Two credits (or equivalent) of a single world language in High School satisfies this WKU requirement.

**Admission to the Major:** To gain admission to the Math Econ (Actuarial Sciences) major students must have a minimum 2.0 overall GPA. They must also complete MATH 136, ECON 202, ECON203, and ECON 206/STAT 301 with a separately calculated 2.0 GPA.

Fall Semester		Spring Semester	
Connections <sup>1</sup> (K-SC or K-LG or K-SY)	3	ECON 303, Macroeconomic Theory	3
ECON 302, Microeconomic Theory	3	ECON 465, Regression and Econometric Analysis  OR ECON 480, Economic Forecasting OR STAT 401, Regression Analysis	3
ECON 307, Financial Data Modeling (ECON 206)	3	FIN 350, Risk Management and Insurance	3
FIN 330, Principles of Financial Management	3	MATH 482, Probability and Statistics II (VEE credit)	3
MATH 382, Probability and Statistics I	3	Writing in the Disciplines (F-W2)	3
TOTAL CREDIT HOURS	15	TOTAL CREDIT HOURS	15

Fall Semester		Spring Semester				
ECON 480, Economic Forecasting *	3	Connections <sup>3</sup> (K-SC or K-LG or K-SY)	3			
FIN 332, Investment Theory	3	ECON 497 <b>OR</b> MATH 497, Senior Seminar in Mathematical Economics	3			
FIN 437, Corporate Asset Management	3	General University Elective	3			
FIN 438, Corporate Funds Management (VEE credit)*	3	General University Elective	3			
Connections <sup>2</sup> (K-SC or K-LG or K-SY)	3	General University Upper-Division Elective	2			
TOTAL CREDIT HOURS	15	TOTAL CREDIT HOURS	14			
Total Credit Hours: 120						

\*ECON 480 and FIN 438 are not required for the degree. However, FIN 438 can used toward a VEE credit, and ECON 480 will help students prepare for actuarial exams.

**Departments:** Mathematics, College High Hall 4124 Economics, Grise Hall 432

**Phone:** (270) 75-3651 (270) 745-2249

Website: www.wku.edu/math www.wku.edu/economics

**Email:** math@wku.edu econ@wku.edu

Course Descriptions: <a href="http://www.wku.edu/undergraduatecatalog/">http://www.wku.edu/undergraduatecatalog/</a>