



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

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.

**Success Markers**

**SAMPLE - 4 year plan**

<b>FIRST YEAR</b>  <i>Visit the Math Lab for FREE tutoring!</i>	Fall Semester		Spring Semester	
	COMM 145, Fund Speaking/COMM: BUS/PROF (F-OC)	3	ENG 200, Introduction Literature (ENG 100) (F-AH)	3
	ENG 100 – Introduction to College Writing (F-W1)	3	ACCT 200, Introductory Accounting – Financial (General Education Math)	3
	HIST 101 or 102, World History I or II (F-SB)	3	Foreign Language (Language Proficiency)	3
	Arts & Humanities (E-AH)	3	MATH 137 – Calculus II (MATH 136, C or better)	4
	MATH 136* – Calculus I (F-QR)	4	Natural & Physical Sciences (E-NS)	3
	<b>TOTAL CREDIT HOURS</b>	<b>16</b>	<b>TOTAL CREDIT HOURS</b>	<b>16</b>

<b>SECOND YEAR</b>  <i>Join An Organization Or Volunteer</i>	Fall Semester		Spring Semester	
	Econ 202* - Principles of Economics - Micro (Sophomore) (E-SB)	3	Econ 203* - Principles of Economics - Macro (Sophomore) (E-SB)	3
	Natural & Physical Sciences with lab (E-SL)	3	*ECON 206 – Statistics (ECON 202/203) OR STAT 301 – Probability and Applied Statistics (MATH 136 or MATH 142, “C” or better)	3
	MATH 307 – Introduction to Linear Algebra (MATH 137, grade of “C” or better; or MATH 136, grade of “A”; or MATH 142, grade of “A”)	3	CS 170 – Problem Solving and Programming (eligibility for MATH 116) OR CS 180 – Computer Science I (CS 170, “C” or better)	3-4
	MATH 310 – Introduction to Discrete Math (MATH 137, “C” or better)	3	MATH 237 – Multivariable Calculus (MATH 137, “C” or better)	4
	Connections (K-SC)	3	Connections (K-LG)	3
	<b>TOTAL CREDIT HOURS</b>	<b>15</b>	<b>TOTAL CREDIT HOURS</b>	<b>16-17</b>

**World Language Proficiency:** All students entering in fall 2014 or later must demonstrate proficiency in a world language at the Novice High level before completing 60 credit hours. Novice high is the ability to communicate in writing and speaking on familiar topics in simple sentences. To meet this requirement, students may take college language courses or take a proficiency test. For more information go to: <http://www.wku.edu/modernlanguages/placement/>.

**Colonnade Program:** All students entering in fall 2014 or later must complete 39 hours in 13 specific Colonnade areas. Colonnade areas are listed in parentheses marked in blue after the corresponding classes. Some areas may have specific course requirements while others can be chosen from selected lists of options. For more details and to see lists of options, go to [http://www.wku.edu/colonnade/documents/approved\\_colonnade\\_courses\\_website.pdf](http://www.wku.edu/colonnade/documents/approved_colonnade_courses_website.pdf).

**Admission to the Mathematics Economics (Actuarial Sciences) 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, ECON 203, and ECON 206/STAT 301 with a separately calculated 2.0 GPA.

<b>THIRD YEAR</b>  <i>Visit the Center for Career and Professional Development</i>	Fall Semester		Spring Semester	
	ECON 302 – Microeconomic Theory (ECON 202, 203, and 206)	3	ECON 303 – Macroeconomic Theory (ECON 202, 203, and 206)	3
	ECON 307 – Financial Data Modeling (ECON 206)	3	ECON 465 – Regression and Econometric Analysis (ECON 206) <b>OR</b> ECON 465, Regression & Econometric Analysis (ECON 206) <b>OR</b> STAT 401 – Regression Analysis (STAT 301, “C” or better or permission of instructor)	3
	MATH 382 – Probability and Statistics I (prerequisite or corequisite: MATH 237;perquisite: MATH 310, “C” or better)	3	MATH 482 – Probability and Statistics II (MATH 237 & 382, “C” or better in both)	3
	FIN 330 – Principles of Financial Management (ACCT 200, MATH 116, & ECON 202/203)	3	FIN 350 – Risk Management and Insurance (FIN 330)	3
	ENG 300 – Writing in the Disciplines (ENG 200 or permission of instructor) (F- W2)	3	Connections (K-SY)	3
	<b>TOTAL CREDIT HOURS</b>	<b>15</b>	<b>TOTAL CREDIT HOURS</b>	<b>15</b>

<b>FOURTH YEAR</b>  <i>Apply for Graduation and CELEBRATE!</i>	Fall Semester		Spring Semester	
	General Elective	3	ECON 497 <b>OR</b> MATH 497 – Senior Seminar in Mathematical Economics	1
	FIN 332 – Investment Theory (FIN 330)	3	General Elective	3
	FIN 437 – Corporate Asset Management (FIN 330, “C” or better and ECON 307 (or concurrent))	3	FIN 438 – Corporate Funds Management (FIN 330, “C” or better or current enrollment in ECON 307))	3
	ECON 480 – Economic Forecasting (MATH 116 or higher, ECON 202, 203, & 206)	3	General Elective	3
	General Elective	2	General Elective	3
	<b>TOTAL CREDIT HOURS</b>	<b>14</b>	<b>TOTAL CREDIT HOURS</b>	<b>13</b>

**Total Credit Hours: 120**

\* Denotes prerequisite courses before admission

**PLEASE NOTE:** Prerequisites, Course Numbers, and Course Titles are subject to change.  
Consult your advisor each semester.

Course Descriptions may be viewed at <http://www.wku.edu/catalog>

**For more information:**

<b>Department:</b> Mathematics	Economics
<b>Website:</b> <a href="http://www.wku.edu/math">www.wku.edu/math</a>	<a href="http://www.wku.edu/economics">www.wku.edu/economics</a>
<b>Phone:</b> (270) 745-3651	(270) 745-2249
<b>Email:</b> <a href="mailto:math@wku.edu">math@wku.edu</a>	econ@wku.edu

Course Descriptions: <http://www.wku.edu/undergraduatecatalog/>