B.S. IN MATHEMATICS - ACTUARIAL SCIENCE CONCENTRATION

College of the Sciences and Mathematics

Curriculum

Code	Title	Credits
GENERAL EDUCATION REQUIREMENTS (http://catalog.wcupa.edu/undergraduate/general-education-requirements/)		
Academic Foundations		
First Year Experience requirement		4
English Composition requirement		6-7
Mathematics requirement		3-4
Interdisciplinary requirement		3
Diverse Communities requirement		3
Ethics requirement		3
Distributed Disciplinary Foundations		
Science requirement		6-8
Behavioral & Social Science requirement		6
Humanities requirement		6
Arts requirement		3
ADDITIONAL BACCALAUREATE REQUIREMENTS (http://catalog.wcupa.edu/undergraduate/general-education-requirements/)		
University Requirements		
Writing Emphasis requirement		9
Speaking Emphasis requirement		9
Degree Requirements		
Capstone requirement		1-15
MAJOR REQUIREMENTS		
Mathematics Core		
MAT 161	Calculus I	4
MAT 162	Calculus II	4
MAT 200	The Nature of Mathematics	3
MAT 261	Calculus III	4
MAT 311	Linear Algebra [1]	3
Concentration Requirements		
MAT 125	Introduction to Statistics and Probability	3
STA 200	Introduction to Statistics II	3
STA 319	Applied Statistics	3
MAT 343	Differential Equations	3
MAT 371	Mathematics of Finance	3
MAT 421	Mathematical Statistics I	3
MAT 422	Mathematical Statistics II	3
MAT 423	Applied Probability	3
STA 419	Basics of Statistical Learning	3
Cognate Requirements		
Select one of the following: [3]		3
ENG 368	Business and Organizational Writing	
ENG 371	Technical Writing	
ENG 375	Strategies for Writing in the Workplace	
ACC 201	Financial Accounting	3
ECO 111	Principles of Economics (Macro) [2]	3
ECO 112	Principles of Economics (Micro)	3
ECO 340	Intermediate Microeconomics	3
FIN 325	Corporate Finance	3
FIN 330	Principles of Insurance	3
Free Electives or Internship		
Chosen under advisement		14
Capstone Requirement		
MAT 478	Fundamentals of Actuarial Science [3,4,5]	3
Total Minimum Credits Required		**120**

[1] Indicates course satisfies the general education Mathematics requirement.

[2] This course satisfies the general education Behavioral and Social Sciences requirement

[3] This course satisfies the University Writing Emphasis requirement

[4] This course satisfies the University Speaking Emphasis requirement

[5] This course fulfills the Capstone requirement and must be passed with a C or better.

All mathematics core and concentration courses must be passed with a C or better.

Sample Course Plan

To track their individual degree progress, students are advised to access their Degree Progress Report (DPR) via myWCU regularly. For more information, visit wcupa.edu/DegreeProgressReport (http://wcupa.edu/degreeprogressreport/).

The following is a sample suggested course sequence for this program; course offerings and availability are not guaranteed. Students should consult their academic advisor with any questions.

Course	Title	Credits
Year One		
Fall		
MAT 125	Introduction to Statistics and Probability	3
MAT 161	Calculus I	4
ECO 112	Principles of Economics (Micro)	3
WRT 120 or WRT 123	Effective Writing I or Effective Writing with Supplemental Writing Workshop	3
FYE 100X	First Year Experience	4
	Credits	**17**
Spring		
MAT 162	Calculus II	4
MAT 200	The Nature of Mathematics	3
ECO 111	Principles of Economics (Macro)	3
Science Gen Ed		3
Behavioral/Social Science Gen Ed		3
	Credits	**16**
Year Two		
Fall		
MAT 261	Calculus III [1]	4
MAT 311	Linear Algebra	3
MAT 371	Mathematics of Finance	3
ACC 201	Financial Accounting	3
WRT 2XX	200-Level WRT Course	3
	Credits	**16**
Spring		
MAT 421	Mathematical Statistics I [1]	3

STA 319	Applied Statistics	3
FIN 325	Corporate Finance	3
Science Gen Ed		3
Free Elective [3]		3
	Credits	**15**
Year Three		
Fall		
STA 419	Basics of Statistical Learning	3
FIN 330	Principles of Insurance	3
IW Course		3
Humanities Gen Ed		3
Free Elective [3]		3
	Credits	**15**
Spring		
MAT 343	Differential Equations	3
MAT 422	Mathematical Statistics II	3
ECO 340	Intermediate Microeconomics	3
JW Course		3
Free Elective [3]		3
	Credits	**15**
Year Four		
Fall		
ENG 368 or ENG 371 or ENG 375	Business and Organizational Writing (W) or Technical Writing or Strategies for Writing in the Workplace	3
Arts Gen Ed		3
Humanities Gen Ed		3
Free Elective [3]		3
Free Elective [3]		3
	Credits	**15**
Spring		
MAT 478	Fundamentals of Actuarial Science	3
MAT 491 or Free Elective	Internship in Applied Mathematics [2]	2-4
Free Elective [3]		3
Free Elective [3]		3
	Credits	**11-13**
	Total Credits	**120-122**

[1] MAT 421 should be taken immediately after MAT 261.
[2] May be taken for variable credit and repeated for credit.
[3] Must be approved by advisor.