MATHEMATICS (BS) - APPLIED MATHEMATICS CONCENTRATION

Actuarial Program Map

Course	Title	Credit Hours
First Year		
Fall		
MATH 1113	Pre-Calculus (minimum grade of C)	4
	(Apply 3 credits to Area A and 1 credit to Area G.)	
ENGL 1101	English Composition I (minimum grade of C)	3
AREA D	Lab Science	4
ACCT 2101	Principles of Accounting I (minimum grade of C)	3
AREA E	Behavioral Science, the following is recommended:	3
ECON 2105	Principles of Macroeconomics (minimum grade of C) [1]	
	Credit Hours	**17**
Spring		
MATH 1131	Calculus with Analytic Geometry I (minimum grade of C)	4
	(Apply 3 credits to Area D and 1 credit to Area F.)	
ENGL 1102	English Composition II (minimum grade of C)	3
CPSC 1301K	Computer Science I (minimum grade of C)	4
	(Apply 3 credits to AREA F, 1 credit to AREA G.)	
STAT 1401	Elementary Statistics (minimum grade of C)	3
ECON 2106	Principles of Microeconomics (minimum grade of C) [1]	3
Area B2	ITDS 1779 (2), LEAD 1705 (2), PERS 1506 (1; may be repeated with different topic), PERS 1507 (2)	1
	Credit Hours	**18**
Second Year		
Fall		
MATH 1132	Calculus with Analytic Geometry II (minimum grade of C)	4
	(If MATH 1132 is used in Area D, the one extra hour will count in Area F.)	
MATH 2125	Introduction to Discrete Mathematics (minimum grade of C)	3
MATH 2115	Introduction to Linear Algebra (minimum grade of C)	3
AREA C	Humanities Course (Recommend ITDS 2125 Historical Perspectives on the Philosoophy of Science and Mathematics)	3
AREA E	World Cultures	3
	Credit Hours	**16**
Spring		
MATH 2135	Calculus with Analytic Geometry 3 (minimum grade of C)	4
MATH 3154	minimum grade of C	3
MATH 3175	Introduction to Probability (minimum grade of C)	3
Area B1	COMM 1110 Public Speaking or Foreign Language	
AREA C	Fine Arts Course	3
	Credit Hours	**13**
Third Year		
Fall		
MATH 5151U	Introduction to Real Analysis I (minimum grade of C)	3
MATH 5175U	Mathematical Statistics (minimum grade of C)	3
Take one of the following courses (minimum grade of C):		3
MATH 3108	Introduction to Actuarial Science	
MATH 5126U	Actuarial Regression and Time Series	
AREA D	Lab Science	4
POLS 1101	American Government	3
	Credit Hours	**16**
Spring		
MATH 3106	Mathematical Theory of Interest (minimum grade of C)	3
FINC 3105	Principles of Finance (minimum grade of C)	3
AREA H	Upper Level General Elective	3
HIST 2111 or HIST 2112	U. S. History to 1865 or U. S. History since 1865	3
KINS 1106 or PHED 1205	Lifetime Wellness or Concepts of Fitness	2
PEDS course		1
	Credit Hours	**15**
Fourth Year		
Fall		
MATH 4795	Senior Seminar in Mathematics (minimum grade of C)	3
FINC 3115	Corporate Financial Analysis (minimum grade of C)	3
Take one of the following courses (minimum grade of C):		3
MATH 3108	Introduction to Actuarial Science	
MATH 5126U	Actuarial Regression and Time Series	
AREA H	Upper Level General Elective	3
AREA H	General Elective	1
	Credit Hours	**13**
Spring		
AREA H	Upper Level General Elective	3
AREA H	General Elective	3
AREA H	General Elective	3
AREA H	General Elective	3
AREA H	General Elective	3
	Credit Hours	**15**
	Total Credit Hours	**123**

Statistics Program Map

Course	Title	Credit Hours
First Year		
Fall		
MATH 1113	Pre-Calculus (minimum grade of C)	4
	(Apply 3 credits to Area A and 1 credit to Area G.)	
ENGL 1101	English Composition I (minimum grade of C)	3
AREA D	Lab Science	4
AREA E	Behavioral Science, the following is recommended:	3
ECON 2105	Principles of Macroeconomics (minimum grade of C) [1]	
	Credit Hours	**14**
Spring		
MATH 1131	Calculus with Analytic Geometry I (minimum grade of C)	4
	(Apply 3 credits to Area D and 1 credit to Area F.)	
ENGL 1102	English Composition II (minimum grade of C)	3
CPSC 1301K	Computer Science I (minimum grade of C)	4
(Apply 3 credits to AREA F, 1 credit to AREA G.)		
STAT 1401	Elementary Statistics (minimum grade of C)	3
ECON 2106	Principles of Microeconomics (minimum grade of C)(Recommended Area F Guided Elective)	3
Area B2	ITDS 1779 (2), LEAD 1705 (2), PERS 1506 (1; may be repeated with different topic), PERS 1507 (2)	1
	Credit Hours	**18**
Second Year		
Fall		
MATH 1132	Calculus with Analytic Geometry II (minimum grade of C)	4
	(If MATH 1132 is used in Area D, the one extra hour will count in Area F.)	
MATH 2125	Introduction to Discrete Mathematics (minimum grade of C)	3
MATH 2115	Introduction to Linear Algebra (minimum grade of C)	3
AREA C	Humanities Course (Recommend ITDS 2125 Historical Perspectives on the Philosoophy of Science and Mathematics)	3
AREA E	World Cultures	3
	Credit Hours	**16**
Spring		
MATH 2135	Calculus with Analytic Geometry 3 (minimum grade of C)	4
MATH 3154	minimum grade of C	3
MATH 3175	Introduction to Probability (minimum grade of C)	3
Area B1	COMM 1110 Public Speaking or Foreign Language	
STAT 3127	Statistical Computing (minimum grade of C)	3
AREA C	Fine Arts Course	3
	Credit Hours	**16**
Third Year		
Fall		
MATH 5151U	Introduction to Real Analysis I (minimum grade of C)	3
MATH 5175U	Mathematical Statistics (minimum grade of C)	3
STAT 5176U	Statistical Design and Analysis of Experiments (minimum grade of C)	3
AREA D	Lab Science	4
POLS 1101	American Government	3
	Credit Hours	**16**
Spring		
STAT 5177U	Applied Regression Analysis (minimum grade of C)	3
AREA H	Upper Level General Elective (minimum grade of C)	3
AREA H	General Elective	3
HIST 2111 or HIST 2112	U. S. History to 1865 or U. S. History since 1865	3
KINS 1106 or PHED 1205	Lifetime Wellness or Concepts of Fitness	2
PEDS course		1
	Credit Hours	**15**
Fourth Year		
Fall		
MATH 4795	Senior Seminar in Mathematics (minimum grade of C)	3
AREA H	General Elective	3
Take one of the following courses (minimum grade of C):		3
STAT 5117U	Applied Multivariate Analysis	
STAT 5118U	Applied Nonparametric Methods	
STAT 5119U	Applied Categorical Data Analysis	
AREA H	Upper Level General Elective (minimum grade of C)	3
AREA H	General Elective	1
	Credit Hours	**13**
Spring		
Take one of the following courses (minimum grade of C):		3
STAT 5117U	Applied Multivariate Analysis	
STAT 5118U	Applied Nonparametric Methods	
STAT 5119U	Applied Categorical Data Analysis	
AREA H	Upper Level General Elective (minimum grade of C)	3
AREA H	General Elective	3
AREA H	General Elective	3
AREA H	General Elective	3
	Credit Hours	**15**
	Total Credit Hours	**123**

[1] If not taken in Area E, course must be added in another semester.

The student needs to work with his/her advisor to choose appropriate elective courses to make sure that he/she meets the total hours 123 required for the program.