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 Mathematics and Quantitative Skills and 1 credit to Program Requirements.)				
ENGL 1101	English Composition I (minimum grade of C)	3		
Technology, Mathematics, and Sciences	Lab Science	4		
ACCT 2101	Principles of Accounting I (minimum grade of C)	3		
Social Sciences	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		
	s to Technology, Mathematics, and Sciences Field of Study Requirements.)			
ENGL 1102	English Composition II (minimum grade of C)	3		
CPSC 1301K	Computer Science I (minimum grade of C)	4		
(Apply 3 credits to Field of Study Requirements, 1 credit to Program Requirements.)				
STAT 1401	Elementary Statistics (minimum grade of C)	3		
ECON 2106	Principles of Microeconomics (minimum grade of C) ¹	3		
Institutional Priorities	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 Technology, Mathematics, and Sciences, the one extra hour will count in Field of Study Requirements.)				
MATH 2125	Introduction to Discrete Mathematics (minimum grade of C)	3		
MATH 2115	Introduction to Linear Algebra (minimum grade of C)	3		

	Humanities Course (Recommend	3
and Ethics	ITDS 2125 Historical Perspectives on the	
Social Sciences	Philosoophy of Science and Mathematics) World Cultures	3
Social Sciences	Credit Hours	16
Spring	Credit Hours	10
MATH 2135	Calculus with Analytic Geometry 3	4
	(minimum grade of C)	·
MATH 3154	minimum grade of C	3
MATH 3175	Introduction to Probability (minimum grade of C)	3
Institutional Priorities	COMM 1110 Public Speaking or Foreign Language	
Arts, Humanities, and Ethics	Fine Arts Course	3
	Credit Hours	13
Third Year Fall		
MATH 5151U Introduction to Real Analysis I (miningrade of C)		3
MATH 5175U	, , , , , , , , , , , , , , , , , , ,	
Take one of the fo	llowing courses (minimum grade of C):	3
MATH 3108	Introduction to Actuarial Science	
MATH 5126U	Actuarial Regression and Time Series	
Technology, Mathematics,	Lab Science	4
and Sciences	American Covernment	2
	American Government	3
and Sciences POLS 1101	American Government Credit Hours	3 16
and Sciences	Credit Hours Mathematical Theory of Interest (minimum	
and Sciences POLS 1101 Spring MATH 3106	Credit Hours Mathematical Theory of Interest (minimum grade of C)	16
and Sciences POLS 1101 Spring MATH 3106 FINC 3105 Program	Credit Hours Mathematical Theory of Interest (minimum	16
and Sciences POLS 1101 Spring MATH 3106 FINC 3105 Program Electives HIST 2111	Credit Hours Mathematical Theory of Interest (minimum grade of C) Principles of Finance (minimum grade of C) Upper Level General Elective U. S. History to 1865	16 3 3
and Sciences POLS 1101 Spring MATH 3106 FINC 3105 Program Electives HIST 2111 or HIST 2112	Credit Hours Mathematical Theory of Interest (minimum grade of C) Principles of Finance (minimum grade of C) Upper Level General Elective U. S. History to 1865 or U. S. History since 1865	3 3 3 3
and Sciences POLS 1101 Spring MATH 3106 FINC 3105 Program Electives HIST 2111	Credit Hours Mathematical Theory of Interest (minimum grade of C) Principles of Finance (minimum grade of C) Upper Level General Elective U. S. History to 1865	3 3 3
and Sciences POLS 1101 Spring MATH 3106 FINC 3105 Program Electives HIST 2111 or HIST 2112 KINS 1106	Credit Hours Mathematical Theory of Interest (minimum grade of C) Principles of Finance (minimum grade of C) Upper Level General Elective U. S. History to 1865 or U. S. History since 1865 Lifetime Wellness	3 3 3 3
and Sciences POLS 1101 Spring MATH 3106 FINC 3105 Program Electives HIST 2111 or HIST 2112 KINS 1106 or PHED 1205 Health and	Credit Hours Mathematical Theory of Interest (minimum grade of C) Principles of Finance (minimum grade of C) Upper Level General Elective U. S. History to 1865 or U. S. History since 1865 Lifetime Wellness or Concepts of Fitness	3 3 3 3 2
and Sciences POLS 1101 Spring MATH 3106 FINC 3105 Program Electives HIST 2111 or HIST 2112 KINS 1106 or PHED 1205 Health and	Credit Hours Mathematical Theory of Interest (minimum grade of C) Principles of Finance (minimum grade of C) Upper Level General Elective U. S. History to 1865 or U. S. History since 1865 Lifetime Wellness or Concepts of Fitness PEDS course	16 3 3 3 3 2
and Sciences POLS 1101 Spring MATH 3106 FINC 3105 Program Electives HIST 2111 or HIST 2112 KINS 1106 or PHED 1205 Health and Wellness	Credit Hours Mathematical Theory of Interest (minimum grade of C) Principles of Finance (minimum grade of C) Upper Level General Elective U. S. History to 1865 or U. S. History since 1865 Lifetime Wellness or Concepts of Fitness PEDS course	16 3 3 3 3 2
and Sciences POLS 1101 Spring MATH 3106 FINC 3105 Program Electives HIST 2111 or HIST 2112 KINS 1106 or PHED 1205 Health and Wellness Fourth Year Fall	Credit Hours Mathematical Theory of Interest (minimum grade of C) Principles of Finance (minimum grade of C) Upper Level General Elective U. S. History to 1865 or U. S. History since 1865 Lifetime Wellness or Concepts of Fitness PEDS course Credit Hours Senior Seminar in Mathematics (minimum	16 3 3 3 2 1
and Sciences POLS 1101 Spring MATH 3106 FINC 3105 Program Electives HIST 2111 or HIST 2112 KINS 1106 or PHED 1205 Health and Wellness Fourth Year Fall MATH 4795 FINC 3115	Credit Hours Mathematical Theory of Interest (minimum grade of C) Principles of Finance (minimum grade of C) Upper Level General Elective U. S. History to 1865 or U. S. History since 1865 Lifetime Wellness or Concepts of Fitness PEDS course Credit Hours Senior Seminar in Mathematics (minimum grade of C) Corporate Financial Analysis (minimum	16 3 3 3 3 2 1 15
and Sciences POLS 1101 Spring MATH 3106 FINC 3105 Program Electives HIST 2111 or HIST 2112 KINS 1106 or PHED 1205 Health and Wellness Fourth Year Fall MATH 4795 FINC 3115	Credit Hours Mathematical Theory of Interest (minimum grade of C) Principles of Finance (minimum grade of C) Upper Level General Elective U. S. History to 1865 or U. S. History since 1865 Lifetime Wellness or Concepts of Fitness PEDS course Credit Hours Senior Seminar in Mathematics (minimum grade of C) Corporate Financial Analysis (minimum grade of C)	16 3 3 3 2 1 15
and Sciences POLS 1101 Spring MATH 3106 FINC 3105 Program Electives HIST 2111 or HIST 2112 KINS 1106 or PHED 1205 Health and Wellness Fourth Year Fall MATH 4795 FINC 3115 Take one of the fo	Credit Hours Mathematical Theory of Interest (minimum grade of C) Principles of Finance (minimum grade of C) Upper Level General Elective U. S. History to 1865 or U. S. History since 1865 Lifetime Wellness or Concepts of Fitness PEDS course Credit Hours Senior Seminar in Mathematics (minimum grade of C) Corporate Financial Analysis (minimum grade of C) Illowing courses (minimum grade of C):	16 3 3 3 2 1 15

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Program Electives	General Elective	1	MATH 2125	Introduction to Discrete Mathematics (minimum grade of C)	3
	Credit Hours	13	MATH 2115	Introduction to Linear Algebra (minimum grade of C)	3
Spring	Harris I and Orange Election	0	Arts Humanities	Humanities Course (Recommend	3
	Upper Level General Elective	3	and Ethics	ITDS 2125 Historical Perspectives on the	Ü
Program Elective		3		Philosoophy of Science and Mathematics)	
Program Elective		3	Social Sciences	World Cultures	3
Program Elective		3		Credit Hours	16
Program Elective		3 15	Spring		
	Credit Hours Total Credit Hours	123	MATH 2135	Calculus with Analytic Geometry 3 (minimum grade of C)	4
Ctatiation	Drogram Man		MATH 3154	minimum grade of C	3
Course	Program Map	Credit	MATH 3175	Introduction to Probability (minimum grade of C)	3
First Year		Hours	Institutional Priorities	COMM 1110 Public Speaking or Foreign Language	
Fall MATH 1113	Pre-Calculus (minimum grade of C)	4	STAT 3127	Statistical Computing (minimum grade of C)	3
(Apply 3 credits	s to Mathematics and Quantitative Skills, 1 am Requirements.)	7	Arts, Humanities, and Ethics	,	3
ENGL 1101	English Composition I (minimum grade of	3		Credit Hours	16
LINGE TTOT	C)	3	Third Year		
Technology,	Lab Science	4	Fall		
Mathematics, and Sciences			MATH 5151U	Introduction to Real Analysis I (minimum grade of C)	3
Social Sciences	Behavioral Science, the following is recommended:	3	MATH 5175U	Mathematical Statistics (minimum grade of C)	3
ECON 2105	Principles of Macroeconomics (minimum grade of C) ¹		STAT 5176U	Statistical Design and Analysis of Experiments (minimum grade of C)	3
Spring	Credit Hours	14	Technology, Mathematics,	Lab Science	4
MATH 1131	Calculus with Analytic Geometry I	4	and Sciences		
	(minimum grade of C)		POLS 1101	American Government	3
	s to Technology, Mathematics, and Sciences, d of Study Requirements.)		Spring	Credit Hours	16
ENGL 1102	English Composition II (minimum grade of C)	3	STAT 5177U	Applied Regression Analysis (minimum grade of C)	3
CPSC 1301K	Computer Science I (minimum grade of C)	4	Program	Upper Level General Elective (minimum	3
	Field of Study Requirements, 1 credit to		Electives	grade of C)	
Program Requirer			Program Elective	General Elective	3
STAT 1401	Elementary Statistics (minimum grade of C)	3	HIST 2111 or HIST 2112	U. S. History to 1865 or U. S. History since 1865	3
ECON 2106	Principles of Microeconomics (minimum grade of C)(Recommended Area F Guided	3	KINS 1106 or PHED 1205	Lifetime Wellness or Concepts of Fitness	2
Institutional	Elective) ITDS 1779 (2), LEAD 1705 (2), PERS 1506	1	Health and Wellness	PEDS course	1
Priorities	(1; may be repeated with different topic), PERS 1507 (2)			Credit Hours	15
		10	Fourth Year		
Second Year	Credit Hours	18	Fall		
Fall			MATH 4795	Senior Seminar in Mathematics (minimum grade of C)	3
MATH 1132	Calculus with Analytic Geometry II (minimum grade of C)	4	Program Elective	General Elective	3
(If MATH 1122	is used in Technology, Mathematics, and		Take one of the fo	ollowing courses (minimum grade of C):	3
	credit in Field of Study Requirements.)		STAT 5117U	Applied Multivariate Analysis	

	Total Credit Hours	123	
	Credit Hours	15	
Program Elective	General Elective	3	
Program Elective	General Elective	3	
Program Elective	General Elective	3	
Program Elective Upper Level General Elective (minimum grade of C)		3	
STAT 5119U	Applied Categorical Data Analysis		
STAT 5118U	Applied Nonparametric Methods		
STAT 5117U	Applied Multivariate Analysis		
Take one of the fo	ollowing courses (minimum grade of C):	3	
Spring			
	Credit Hours	13	
Program Elective	General Elective	1	
Program Elective	Upper Level General Elective (minimum grade of C)	3	
STAT 5119U	Applied Categorical Data Analysis		
STAT 5118U	U Applied Nonparametric Methods		

If not taken as a Social Sciences course in the IMPACTS core, 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.