APPLIED MATHEMATICS AND COMPUTER SCIENCE—Actuarial Science
BACHELOR OF SCIENCE DEGREE – 120 Credits
University of Wisconsin-Stout
PROGRAM PLAN – 2004-2005, Revised – December 2005

NAME_____ **DATE**_____
I.D.#_____ **PHONE #** _____
NEW _____ **TRANSFER** _____

❍ Prerequisite Required ● Course ◆Sequenced Course ■ Ethnic Studies and/or Global Perspectives

GENERAL EDUCATION	**42 CREDITS**	**EIGHT SEMESTER SEQUENCE**								
Communication Skills	**8 credits**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	✓
ENGL 101 Freshman English – Composition ***or*** ENGL 111 Freshman English – Honors I	3	●								
ENGL 102 Freshman English – Reading & Writing ***or*** ENGL 112 Freshman English – Honors II	3		❍							
SPCOM 100 Fundamentals of Speech	2			●						
Analytic Reasoning	**8 credits**									
MATH 156 Calculus & Analytic Geometry 1	5	●								
CS 144 Computer Science 1	3	●								
Health and Physical Education	**2 credits**									
Courses from the approved GE listing	2									
Humanities and the Arts	**9 credits**									
One course from **EACH** of three areas – GE listing	9	■								
Social and Behavioral Sciences	**9 credits**									
ECON-210 Principles of Economics 1	3	●								
One course from **EACH** of two other areas – GE listing	6	■								
Natural Sciences	**4 credits**									
Must include one lab course in this area– GE listing	4									
Technology	**2 credits**									
Course from the Technology area – GE listing	2									
Ethnic Studies	-									
2-3 courses based on area – take HUM and/or SBSCI courses that count in both areas – see listing	-									
Global Perspectives *(Pick one option)*	-									
Second Language Option: 2 yrs same second language in high school ***or*** 4 university credits of a second language ***or*** competency by examination	-									
Global Experience Option: 6 credits – take HUM and SBSCI courses that count in both areas – see listing	-									
MAJOR STUDIES	**78 CREDITS**									
Mathematics Core (Required) (25 cr – 5 cr)	**20 credits**									
MATH 156 Calculus & Analytic Geometry 1	-	●								
MATH 157 Calculus & Analytic Geometry 2	5		◆							
MATH 158 Calculus 3	3			◆						
MATH 275 Linear Algebra (fall)	3			❍						
MATH 255 Differential Equations (spring)	3				❍					
MATH 370 Modern Algebra 1 (fall)	3					❍				
MATH 450 Real Analysis 1 (fall)	3					❍				
Computer Science Core (Required) (19 cr – 3 cr)	**16 credits**									
CS 144 Computer Science 1 *(3 cr. count as GE)*	-	●								
CS 145 Computer Science 2	3		◆							
CS 244 Data Structures (fall)	4			❍						
CS 245 Intro to Computer Organization (spring)	3				❍					
MSCS 280 Graph Theory (spring)	3				❍					
MSCS 446 Numerical Analysis 1 (fall)	3					❍				

Statistics Core (Required)	**6 credits**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
STAT 331 Probability & Mathematical Stats 1 (fall)	3			❍					
STAT 332 Probability & Mathematical Stats 2 (spring)	3				◆				
Capstone (Required)	**4 credits**								
MSCS 490 Math Models 1 (fall)	2							❍	
MSCS 491 Math Models 2 (spring)	2								◆
Math Selective *Select at least 6 credits*	**6 credits**								
MATH 262 Modern Geometry (alternate spring)	3				❍				
MATH 371 Modern Algebra 2 (spring)	3						◆		
MATH 451 Real Analysis 2 (spring)	3						◆		
MATH 460 Complex Variables (alternate spring)	3						❍		
CS Selective *Select at least 3 credits*	**3 credits**								
CS 248 Web and Internet Programming (fall)	3			❍					
CS 342 Survey of Programming Languages (spring)	3						❍		
CS 343 Computer Graphics (fall)	3					❍			
CS 345 Image Processing (alternate spring)	3						❍		
CS 346 Simulation (occasional)	3						❍		
CS 441 Computer Architecture (fall)	3					❍			
CS 442 Systems Programming (spring)	3						◆		
CS 443 Database Systems (spring)	3			❍					
CS 448 Software Engineering (fall)	3					❍			
MSCS 447 Numerical Analysis 2 (occasional)	3						◆		
Actuarial Science Concentration (Required)	**9 credits**								
ECON 215 Principals of Economics 2	3		❍						
ENGL 320 Business Writing ***or*** ENGL 415 Technical Writing	3			❍					
STAT 440 Advanced Linear Modeling	3					❍			
Actuarial Science Selective *Select enough credits to total 120*	**14 credits**								
BUACT 206 Introduction to Financial Accounting	3			●					
BUACT 207 Corporate Managerial Accounting	3				◆				
BUACT 340 Business Finance	3					◆			
BULGL 318 Business Law	3					●			
BULGL 355 Principles of Risk Management	3					●			
BUMIS 333 MIS Decision Support Systems	3				❍				
ECON 435 Money and Banking	3					◆			
MSCS 449 Co-op Educational Experience	1-9					❍			
Professional Investigation/Exposure	**-**								
Students must attend at least one professional event per semester for 2 years	-								
TOTAL CREDITS FOR GRADUATION	**120**								

❍ Prerequisite Required ● Course ◆Sequenced Course ■ Ethnic Studies and/or Global Perspectives

_____ _____

Student Date Program Director Date