APPLIED MATHEMATICS AND COMPUTER SCIENCE—Software Development
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**									
One course from **EACH** of three areas – GE listing	9	■								
Natural Sciences	**4 credits**									
Must include one lab course in this area—see Software Development concentration for list of suggested courses	4									
Technology	**2 credits**									
Course from the Technology area – GE listing	2									
Ethnic Studies	-									
2-3 courses based on area – take HUM and 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					❍				

		1	2	3	4	5	6	7	8	✓
Statistics Core (Required)	**6 credits**									
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 345 Image Processing (alternate spring)	3						❍			
CS 346 Simulation (occasional)	3							❍		
MSCS 449 Co-op Educational Experience	1-9					❍				
MSCS 447 Numerical Analysis 2 (occasional)	3						◆			
Software Development Concentration (Required)	**18 credits**									
CS 343 Computer Graphics (fall)	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					❍				
ENGL 415 Technical Writing	3			❍						
Software Development Selective *Select enough credits to total 120*	**5 credits**									
XXX-XXX Natural Science Elective (suggested courses include PHYS 281, PHYS 282, PHYS 241, PHYS 242, PHYS 321, CHEM 135, CHEM 136, CHEM 301, CHEM 335, CHEM 470)	In addition to the 4 credits from GE)									
Any CS, MATH, STAT, or MSCS courses listed above that have not already been taken to fulfill other requirements.										
Professional Investigation/Exposure	**-**									
Students must attend at least one professional event per semester for 2 years.	-									
TOTAL CREDITS FOR GRADUATION	**120**									

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Student Date Program Director Date