



B.S. in Mathematics
Applied Mathematics
MATHBS-MATHAPPL.2014
48-50 credits

Effective Date: 9/2014

Name of Student:		
Student ID #:		Graduation Date
Home Country:	<input type="checkbox"/> IWORK	
Advisor:	Name	Date

The Applied Mathematics track prepares students for careers in government service, industry, areas of research, or gradated study in other fields other than pure mathematics.

Core Requirements **27 Credits**

Course #	Title	Hr.	Prerequisites	Offered	Sem.	Grade
MATH 112	Calculus I	5		F,W,S		
MATH 113	Calculus II	5	MATH 112	F,W		
MATH 214	Multivariable Calculus	5	MATH 113	W,S		
MATH 221	Principles of Statistics	3	MATH 107 or 110	F,W,S		
MATH 301	Foundations of Mathematics	3	MATH 112	F-even, W-even, S-odd		
MATH 334	Differential Equations	3	MATH 214	W-even, S-odd		
MATH 343	Elementary Linear Algebra	3	MATH 112	F-odd, W-odd, S-even		

Applied Cluster (Each student will take a set of courses from one of the following clusters) **12-14 Credits**

PHYS 121/L	General Physics I/Lab	4	MATH 112 and either High School Trigonometry or MATH 111	F,W		
PHYS 220/L	General Physics II/Lab	4	PHYS 121 and completion of MATH 113 recommended	F,W		
PHYS 221/L (mrs 1058)	General Physics III/Lab	4	PHYS 121 and completion of MATH 113 recommended	S		
MATH 321	Mathematical Statistics	3	MATH 214	F		
PSYC 205	Applied Social Statistics	3	PSYC 111 and MATH 107 or equivalent or MATH 110 or equivalent	F,S		
PSYC 305	Social Research Methods	4	PSYC 205	F,W,S		
PSYC 405 (mrs 1157)	Multivariate Statistics	3	PSYC 205 or Permission of Instructor	Variable		
MATH 321	Mathematical Statistics	3	MATH 214	F		
BIOL 112/L	Biology I-Cell and Molecular Biology/Lab	4	Corequisite: Class and Lab	F,W,S		
BIOL 265/L	Molecular and Cellular Biology/Lab	4	BIOL 112/L, CHEM 105/L	F,W		
BIOL 330/L (mrs 1158)	Bioinformatics/Lab	4	BIOL 265/L	S-odd		
(MATH 311**)	Introduction to Numerical Methods	3	MATH 113	Variable		
CIS 202	Object-Oriented Programming I	3	CIS 101	F,W,S		
CS 203	Object-Oriented Programming II	3	CIS 202	F		
CS 301	Algorithms and Complexity	3	CS 203 and CIS 206	W		
CS 320 (mrs 1159)	Introduction to Computational Theory	3	CS 203 and CIS 206	W		
MATH 111	Trigonometry and Analytic Geometry	3	Recommended MATH 110 or proficiency	F,W,S		
MATH 302	Foundations of Geometry	3	MATH 112 or Permission of Instructor	F-odd		
MATH 308	Mathematics Using Technologies	3	MATH 112, 221	S-even		
MATH 377	Secondary Mathematics Teaching Methods	2	MATH 112	F-even		
MATH 490R (mrs 1160)	Mathematics Seminar	2	(none)	S		
4 classes	Subjects in which math is applied as approved by the math department chair	12	Variable	Variable		

Advanced Math Electives (Choose 9 more credits from the following) **Minimum 9 Credits**
 (Other courses may be approved by Math Department Chair)

MATH 311	Introduction to Numerical Methods	3	MATH 113	Variable		
MATH 321	Mathematical Statistics	3	MATH 214	F		
MATH 332	Introduction to Complex Variables	3	MATH 214	W-odd, S-even		
MATH 371	Abstract Algebra I	3	MATH 301	F		
MATH 372	Abstract Algebra II	3	MATH 371	W		
MATH 441	Introduction to Analysis I	3	MATH 214	F		
MATH 442	Introduction to Analysis II	3	MATH 441	W		
MATH 490R	Mathematics Seminar	2		S		

****MATH 311 is required for the Advanced Math Elective for the CS Cluster**

***Must have a minimum of 2.0 cumulative GPA in these courses for graduation.

No more than one "D" grade will be allowed in any 300/400 level courses.