



# B.S. in Mathematics

## Applied Mathematics

MATHBS-MATHAPPL.2014 (mrs: 1057/1058)

48-50 credits, incl. 8-12 GE credits

Effective Date: 9/2014

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

<b>Core Requirements</b>	<b>27 Credits</b>
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Course #	Title	Hr.	Prerequisites	Offered	Sem.	Grade
MATH 112	Calculus I (GenEd)	5		F,W,S		
MATH 113	Calculus II (GenEd)	5	MATH 112	F,W		
MATH 214	Multivariable Calculus	5	MATH 113	W,S		
MATH 221	Principles of Statistics	3	MATH 110 or 106	F,W,S		
MATH 301	Foundations of Mathematics	3	MATH 112	F-even, W-odd*, S-odd		
MATH 334	Differential Equations	3	MATH 214	W-odd*, S-odd		
MATH 343	Elementary Linear Algebra	3	MATH 112	F-odd, W-even*, S-even		

<b>Applied Cluster (Each student will take a set of courses from one of the following clusters)</b>	<b>12-14 Credits</b>
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PHYS 121/L	General Physics I & Lab (GenEd)	4	MATH 112 and either High School Trigonometry or MATH 111	F,S		
PHYS 220/L	General Physics II & Lab	4	PHYS 121/L	F,S		
PHYS 221/L	General Physics III & Lab	4	PHYS 122/L	W		
MATH 321	Mathematical Statistics	3	MATH 214	F		
PSYC 205	Applied Social Statistics (GenEd)	3	PSYC 111	F,S		
PSYC 305	Research Methods	3	PSYC 205	F,W,S		
PSYC 405	Multivariate Statistics	3	PSYC 205	S		
MATH 321	Mathematical Statistics	3	MATH 214	F		
BIOL 112/L	Biology I-Cell & Molecular Biology (GenEd)	4	(none)	F,W,S		
BIOL 265/L	Molecular & Cellular Biology/Lab	4	BIOL 112/L, CHEM 105/L	F,W		
BIOL 330/L	Bioinformatics/Lab	4	BIOL 265/L	S-odd		
(MATH 311**)	Numerical Analysis	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	W		
CS 301	Algorithms & Complexity	3	CS 203 & MATH 301	S		
CS 320	Introduction to Computational Theory	3	CS 203 & MATH 301	S		
MATH 111	Trigonometry & Analytic Geometry	3	MATH 110	F,W,S		
MATH 302	Foundations of Geometry	3	MATH 112	F-odd		
MATH 308	Mathematics Using Technologies	3	MATH 112, 221	S-even		
MATH 377	Secondary Math Teaching Methods	2	MATH 112	F-even		
MATH 490R	Mathematics Seminar	2	(none)	S		
4 classes	Subjects in which math is applied as approved by the math department chair	12	Variable	Variable		

<b>Advanced Math Electives (Choose 9 more credits from the following)</b> (Other courses may be approved by Math Department Chair)	<b>Minimum 9 Credits</b>
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MATH 311	Numerical Analysis	3	MATH 113	variable		
MATH 321	Mathematical Statistics	3	MATH 214	F		
MATH 332	Introduction to Complex Variables	3	MATH 214	W-even, 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**

\*Even-year or Odd-year listing of Winter courses determined by course start-date.

\*\*\*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.**



**B.S. in Mathematics**  
**MATHBS.2012 (mrs 197)**  
**48 credits, incl. 8 GE credits**

Effective Date:8/2012

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

The Mathematic major prepares students for careers in teaching, government service, industry, and research, or graduate study in mathematics.

Math 308, Math 490R, and additional courses in Computer Science, Physics, and Chemistry are strongly recommended.

Core						48 Credits
Course #	Title	Hr.	Prerequisites	Offered	Sem.	Grade
MATH 112	Calculus I (GenEd)	5		F,W,S		
MATH 113	Calculus II (GenEd)	5	MATH 112	F,W		
MATH 214	Multivariable Calculus	5	MATH 113	W,S		
MATH 301	Foundations of Mathematics	3	MATH 112	F-even, W-odd*, S-odd		
MATH 321	Mathematical Statistics	3	MATH 214	F		
MATH 332	Introduction to Complex Variables	3	MATH 214	W-even*, S-even		
MATH 343	Elementary Linear Algebra	3	MATH 112	F-odd, W-even*, S-even		
MATH 371	Abstract Algebra I	3	MATH 301	F		
MATH 372	Abstract Algebra II	3	MATH 371	W		
MATH 334	Differential Equations	3	MATH 214	W-odd*, S-odd		
MATH 441	Introduction to Analysis I	3	MATH 214	F		
MATH 442	Introduction to Analysis II	3	MATH 441	W		
Choose 6 Credits from the Following						
MATH 490R	Mathematics Seminar	2		S		
PHYS 121	General Physics I (GenEd)	3	MATH 112 and either High School Trigonometry or MATH 111	F,S		
PHYS 122	General Physics II	3	PHYS 121	F,S		
PHYS 221	General Physics III	3	PHYS 121	W		
CIS 202	Object-Oriented Programming	3	CIS 101	F,W,S		
Total Credits Mapped for Graduation:						

*\*Even-year or Odd-year listing of Winter courses determined by course start-date.*

Must have 2.0 average in these required courses for graduation.  
**No more than a “D” grade will be allowed in any 300/400 level courses.**



**B.S. in Mathematics**  
**MATHBS-MATHPURE.2014 (mrs: 1061)**  
**48 credits, incl. 8 GE credits**

Effective Date: 9/2014

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

The Pure Mathematics track prepares students for careers in teaching, government service, industry, and research, or graduate study in mathematics. Math 308, Math 490R, and additional courses in Computer Science, Physics, and Chemistry are strongly recommended.

Core Requirements						42 Credits
Course #	Title	Hr.	Prerequisites	Offered	Sem.	Grade
MATH 112	Calculus I (GenEd)	5		F,W,S		
MATH 113	Calculus II (GenEd)	5	MATH 112	F,W		
MATH 214	Multivariable Calculus	5	MATH 113	W,S		
MATH 301	Foundations of Mathematics	3	MATH 112	F-even, W-odd*, S-odd		
MATH 321	Mathematical Statistics	3	MATH 214	F		
MATH 332	Introduction to Complex Variables	3	MATH 214	W-even, S-even		
MATH 334	Differential Equations	3	MATH 214	W-odd*, S-odd		
MATH 343	Elementary Linear Algebra	3	MATH 112	F-odd, W-even*, 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		
Mathematics Electives (Choose 6 credits from the following)						6 Credits
(Other courses may be approved by the Math Department Chair)						
MATH 311	Numerical Analysis	3	MATH 113	variable		
MATH 490R	Mathematics Seminar	2		S		
PHYS 121	General Physics I (GenEd)	3	MATH 112 and either High School Trigonometry or MATH 111	F,S		
PHYS 220	General Physics II	3	PHYS 121	F,S		
PHYS 221	General Physics III	3	PHYS 121	W		
CIS 202	Object-Oriented Programming	3	CIS 101	F,W,S		
<b>Total Credits Mapped for Graduation:</b>						

\*Even-year or Odd-year listing of Winter courses determined by course start-date.

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

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