

College of Sciences

# APPLIED MATHEMATICS B.S. MAJOR

### MATHEMATICS AND STATISTICS DEPARTMENT

#### APPLIED MATHEMATICS BACHELOR OF SCIENCE MAJOR CHECKLIST 2018-2019

This checklist aids in placement of students into their major coursework and it documents the department evaluation of transferred credit and course waivers, based on coursework listed on the Degree Audit Report (DARs). A student must complete General Education & Liberal Studies along with other graduation requirements for graduation – refer to your DARs.

Student Name	Metro State ID#

### FOUNDATION COURSES REQUIRED PRIOR TO DECLARING MAJOR

In order to declare an Applied Mathematics major, students must earn grades of C- or higher and have a cumulative GPA of 2.5 in following three courses.

Course #	Title	Transfer Equivalent Details	Grade	Credits	✓
MATH 210	Calculus I				
MATH 211	Calculus II				
STAT 201	Statistics I				

### CORE REQUIREMENTS: 44 CREDITS

Once admitted into the major, these lower and upper division courses are required. Take note of prerequisites prior to registering for courses 300-level or higher.

Course #	Title	Transfer Equivalent Details	Grade	Credits	✓
ICS 140	Computational Thinking with Programming				
PHYS 211	Calculus-Based Physics I				
MATH 301	Introduction to Analysis				
MATH 310	Calculus III: Multivariable Calculus				
MATH 315	Linear Algebra and Applications				
MATH 320	Probability				
MATH 340	Mathematical Modeling				

Course #	Title	Transfer Equivalent Details	Grade	Credits	✓
MATH 350	Ordinary Differential Equations				
MATH 450	Operations Research				
MATH 471	Abstract Algebra				
MATH 499	Mathematics Senior Seminar				

## **ELECTIVE COURSE REQUIREMENT: 4 CREDITS**

One of the following courses is also required. With approval from your academic advisor, other upper division mathematics courses may also fulfill this requirement.

Course #	Title	Credits	<b>√</b>	Course #	Title	Credits	✓
MATH 375	Complex Variables			STAT 321	Biostatistics		
MATH 405	Partial Differential Equations			STAT 331	Nonparametric Statistical Methods		
MATH 420	Numerical Analysis			STAT 341	Analysis of Categorical Data		
STAT 301	Analysis of Variance			STAT 353	Environmental Statistics		
STAT 311	Regression Analysis						

### ADDITIONAL NOTES, CREDIT TOTALS OR COMMENTS:

Academic advisor notes:	

### **GRADUATION REQUIREMENTS**

The following is a summary of graduation requirements, reference your DAR's for specific details.

Major Requirements Checklist	In Progress	Completed
48 Major credits		
19 Metro State Major Credits		
40 Upper Division Major (300 or higher)		

University Requirements Checklist	In Progress	Completed
120 Total Credits (minimum), and GPA of 2.0 or better		
30 Metro State Credits		
40 Upper Division (300 or higher)		
48 credits GELS +RIGR	See DARs for details	

### **CONTACT US**

For specific questions about this major program or equivalencies of prior coursework at other institutions, contact the Chair of the Mathematics & Statistics Department at:

Email: MATH@metrostate.edu Tel: 651.793.1454

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