

# MATH B.S. - OPTION I: Applied Mathematics Option

(for majors from the 2018-2019 catalogue year)

Student \_\_\_\_\_ CIN \_\_\_\_\_ ADVISOR \_\_\_\_\_

GE Requirements (39-42 units)	Term	Grade	Course Type
<b>Block A: Basic Subjects (9)</b>			
A1 Oral Communication Course =			
A2 Written Communication Course =			
A3 Critical Thinking & composition Course =			
<b>American Institutions (6)</b>			
US History course =			
US Constitution course =			
<b>Block B: Natural Sciences (0)</b>			
Fulfilled by major requirements			
<b>Block C: Arts and Humanities (6)</b>			
C1 Arts Course =			
C2 Humanities Course =			
<b>Block D: Social Sciences (6)</b>			
D1 Course =			
D2 Course =			
<b>Block E: Lifelong Learning and Self Development (3)</b>			
E Course =			
<b>Block F: Upper Division GE from 3 different sub-blocks (9)</b>			
Sub block B Course =			
Sub block C Course =			
Sub block D Course =			
<b>GWAR Requirements (0-3)</b>			
UNIV 400 Writing Proficiency Exam (0) <b>OR</b> UNIV 401 Writing Proficiency (3)			

**VARIOUS GE REQUIREMENTS**

- Two civic learning courses (denoted by **cl**) with one being an UD course
  - One race/ethnicity course (denoted by **re**) AND one diversity (denoted by **d**) course or another **re** course.
  - One writing intensive course (denoted by **WI**).
- Above requirements must be fulfilled in GE blocks. Choose accordingly. An IHE course is required of all first-time freshmen. Please see e-catalog for complete GE requirement rules and policies.

**\*DIRECTIVE ELECTIVES IN RELATED AREAS**

The approved list of all approved electives can be obtained at the math dept. website or the online course catalogue.

**Graduation Requirements**

A minimum **40** units of upper division courses and **120** total units are required for graduation. For an extensive list of other graduation requirements, check "academic requirement" in your GET account.

Major Requirement (81 Units)	Term	Grade
<b>Lower Division Required Courses (33)</b>		
MATH 2170 (3) or CS 2011 (3)		
MATH 2110 Calculus I (4)		
MATH 2120 Calculus II (4)		
MATH 2130 Calculus III (3)		
MATH 2150 Differential Equations (3)		
MATH 2450 Foundations of Mathematics I (3)		
MATH 2550 Introduction to Linear Algebra (3)		
PHYS 2100 General Physics I (5)		
BIOL 1100 - Principles of Biology I (5)		
<b>Upper Division Required Courses (7)</b>		
MATH 3450 Foundations of Mathematics II (4)		
MATH 4650 Analysis I (3)		
<b>Directive Elective Course in Related Areas* (3)</b>		
Course =		
<b>Option Specific Required Courses (25-27)</b>		
MATH 4570 - Linear Algebra (3)		
MATH 4680 Introduction to Complex Analysis (3)		
MATH 4740 Theory of Probability (3)		
MATH 4900 - Senior Seminar in Mathematics (4) <i>WI course</i>		
<b>Select one from each of the following groups (12-14)</b>		
<b>Group I:</b> MATH 4010 - Ordinary Differential Equations (3) MATH 4030 - Partial Differential Equations (3)		
<b>Group II:</b> MATH 4100 - Vector Analysis (3) MATH 4670 - Multivariate Analysis (3)		
<b>Group III:</b> MATH 4700 - Numerical Analysis I (3) MATH 4720 - Linear Programming (3)		
<b>Group IV:</b> PHYS 2200 General Physics II (5) BIOL 1200 Principles of Biology II (5) CHEM 1100 - General Chemistry I (5) CS 2012 - Introduction to Programming II (3)		
<b>Directive Elective Courses Related Area Electives* (2-4)</b>		
(If you took PHYS 2200, BIOL 1200, or CHEM 1100 in Group IV above choose 2 units of approved courses. If you took CS 2012, choose 4 units.)		
Course1 =		
Course2 =		
<b>Upper Division Electives (9)</b>		
Course1 =		
Course2 =		
Course3 =		