# Math B.S. - OPTION IV: Traditional Teaching Option

(for majors from the 2019-2020 catalogue year)

Student_____ CIN_____ADVISOR_____

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

**VARIOUS GE REQUIREMENTS**

1. One civic learning course (denoted by **cl**) at the upper division GE level.
2. One race/ethnicity course (denoted by **re**) AND one diversity course (denoted by **d**) or another **re** course.
3. One writing intensive course (denoted by **wi**).

The 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 ELECTIVE**

The approved list of all directive elective courses is on the next page.

**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 |
|---|---|---|
| **Lower Division Required Courses (33)** | | |
| CS 2011 (3) or MATH 2170 (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) | | |
| **Upper Division Required Courses (7)** | | |
| MATH 3450 Foundations of Mathematics II (4) | | |
| MATH 4650 Analysis I (3) | | |
| **Directive Elective Course* (3)** | | |
| Course = | | |
| **Option Specific Required Courses (26-28)** | | |
| MATH 2740 Introduction to Statistics (3) | | |
| MATH 3950 Field Experience I (2) | | |
| MATH 3960 Field Experience II (2) | | |
| MATH 4300 Modern Geometry (3) | | |
| MATH 4460 Theory of Numbers (3) | | |
| MATH 4550 Modern Algebra (3) **OR** MATH 4570 Linear Algebra (3) | | |
| MATH 4740 Theory of Probability (3) | | |
| MATH 4901 Capstone Course for Teachers of Mathematics (4) **WI course** | | |
| Select *one* course from the following group (3-5)<br><br>PHYS 2200 General Physics II (5)<br>BIOL 1200 Principles of Biology II (5)<br>CHEM 1100 General Chemistry I (5)<br>CS 2012 Introduction to Programming II (3)<br>CS 2013 Programming with data Structures (3) | | |
| **University Free Electives (1-3)**<br>(If you took PHYS 2200, BIOL 1200, or CHEM 1100 in group above, choose 1 unit of any course. If you took CS 2012 or CS 2013, choose 3 units.) | | |
| Course(s) = | | |
| **Upper Division Electives (9)** | | |
| Course1 = | | |
| Course2 = | | |
| Course3 = | | |

**Directive Elective Courses**

This is the approved list of Directive Elective Courses. If there is a course that you would like to use that is not on the list, please contact the Department of Mathematics for approval.

- BINF 4000 – Bioinformatics and Computational Biology (3) **also listed as**
- CHEM 4860 – Bioinformatics and Computational Biology (3)

- BIOL 4800 – Modeling Biological Systems (3) **also listed as**
- MATH 4800 – Modeling Biological Systems (3)

- CS 2012 – Introduction to Programming II (3)
- ECON 2090 – Applied Business and Economics Statistics I (3)
- ECON 4010 – Mathematical Economics (3)
- EE 2440 – Digital Engineering (3)
- EE 3040 – Probability, Random Variable, and Random Processes (3)
- PHIL 2500 – Introduction to Symbolic Logic (3)