

Math B.S. - OPTION III: Integrated Teaching Option

(for majors from the 2019-2020 catalogue year)

Student _____ C I N _____ A D V I S O R _____

GE Requirements (Total 30 units)	Term	Grade	Double counts as
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 Understanding and Self-development (3)			
E Course = AAAS 1001 (suggested for transfer students)**			
Block F: Upper Division Blocks B, C, D (0)			
Fulfilled by major requirements			

An IHE course is required of all first time freshmen.

Major Requirement (Total 104 Units)	Term	Grade	Double counts as
Math & Credential Courses			
Lower Division Required Courses (36 units)			
CS 2011 (3) or MATH 2170 (3)			
*MATH 2110 - Calculus I (4)			Block B4
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)			
Math 2740 - Introduction to Statistics (3)			
*PHYS 2100 - General Physics I (5)			Block B1
*BIOL 1100 - Principles of Biology I (5)			Block B2

GE REQUIREMENTS: One race/ethnicity course (re), and one civic learning course (cl), and an IHE course must be fulfilled in lower division GE blocks by freshmen.

****GE certified transfer students do not need IHE course and are advised to choose AAAS 1001 to cover cl and re requirements in GE block E.**

All other requirements (One upper division Civic Learning course (cl), two writing intensive courses (WI), and one diversity course (d)) are met within the major.

Continued from left column	Term	Grade	Double counts as
Upper Division Required Courses (27 units)			
MATH 3450 Foundations of Mathematics II (4)			
MATH 4650 - Analysis I (3)			
*MATH 3950 - Field Experience I (2)			cl, WI UD GE B
*MATH 3960 - Field Experience II (2)			cl, WI UD GE B
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
Directive Elective Course** (3 units)			
Course =			
Credential Required Courses (38 units)			
EDCI 4000 - Transformative Teaching in Diverse Urban Classrooms (3)			
EDSE 4301 - Supporting Academic Language Development for English Learners (3)			
*EDFN 4400 - Educational Foundations: Schooling in a Diverse Society (3)			UD GE D and (d)
EDSP 4000 - Foundations of Special Education (3)			
EDFN 4131 - Psychological Foundations of Education (3)			
EDCI 4292 - 21 st Century Assessment Strategies and Processes (3)			
EDSE 4212M - Instructional Methods for Secondary School Subjects-Mathematics (3)			
EDSE 4453 - Directed Teaching in Secondary Schools (5)			
EDSE 4463 - Proseminar: Assessment of Teaching Performance (3)			
*EDSE 4502 - Understanding Academic Language Development (3)			UD GE C
EDSE 5000 - Transformative Classroom Instruction and Management (3)			
EDSE 5002 - Advanced Secondary Instructional and Management Strategies (3)			

GRADUATION REQUIREMENTS

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.

*DOUBLE COUNT

The courses shown in bold font double count for certain requirements as shown on right most column.

**DIRECTIVE ELECTIVE

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

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)