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

(for majors from the 2019-2020 catalogue year)

Student _____ CIN_____ ADVISOR_____

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) Math & Credential Courses	Term	Grade	Double counts as
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 - 21st 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)