## MATHEMATICS - ELEMENTARY EDUCATION (STARTING IN MTH 110)

BACHELOR OF SCIENCE OR BACHELOR OF ARTS WITH SECOND MAJOR IN EDUCATION & ELEMENTARY CERTIFICATION MINOR

THIS IS A GENERAL CURRICULUM GUIDE AND IS NOT APPLICABLE TO EVERY STUDENT. IT IS IMPORTANT TO MEET WITH YOUR ADVISORS.

A 2.7 cumulative GPA in the Mathematics major is required for admis	sion to t	he College of Education	
Year One			
<sup>1</sup> MTH 110 Algebra	4	<sup>1</sup> MTH 122 College Algebra	3
Prerequisite: MTH 110 or proficiency through math placement		Prerequisite: MTH 110 or proficiency through math placement	
Gen Ed or ⁵WRT 098 (self-placement)	3/4	<sup>1</sup> MTH 123 Trigonometry	3
Gen Ed	3	Prerequisite: MTH 122 (may be taken concurrently) or proficiency through	
Gen Ed	3	math placement	
EDF 100 Introduction to Education (optional – see below)	2	PSY 101 Introductory Psychology	3
		⁵WRT 150 Strategies in Writing	4
		Gen Ed	3
Total	15/16	Total	16
Year Two			
<sup>1</sup> MTH 201 Calculus I	4	MTH 202 Calculus II	4
Prerequisites: MTH 122 and 123 or proficiency through math placement		Prerequisite: MTH 201	l _
PSY 301 Child Development	3	<sup>2</sup> MTH 223 Mathematics for Elementary Teachers III	5
Prerequisite: PSY 101	2	Prerequisites: MTH 201	_
EDF 315 Diverse Perspectives for Education	3	SCI 226 Integrated Physical Sciences for K-8	3
PED 266 Move, Dance, Learn! PE & Dance for Elem. Ed.	2	Prerequisite: MTH 221 or 222 or 223 (may be taken concurrently)	2
MAT 300 Music, Art, and Theater for Elementary Education	3	EDI 337 Introduction to Learning and Assessment	3
Total	15	Total	15
Year Three	1		
<sup>3</sup> MTH 210 <b>SWS</b> Communicating in Mathematics	4	MTH 341 Euclidean Geometry	3
Prerequisites: WRT 150 and MTH 201	_	Prerequisites: MTH 210 and either MTH 227 or MTH 322	_
MTH 227 Linear Algebra I	3	MTH 323 Probability and Statistics for Elementary Teachers	3
Prerequisites: MTH 202		Prerequisite: MTH 322	_
MTH 322 Geometry for Elementary Teachers	3	ENG 302 Intro.to Lang. Arts: Teaching Writing/Children's Lit.	3
Prerequisites: MTH 223 or MTH 221 and MTH 222		Prerequisite: EDI 337 or PED 265 or PED 266	
SCI 225 Integrated Life Sciences for K-8	4	ENG 308 Teaching Reading: The Necessary Skills	4
Prerequisite: MTH 221 or 222 or 223 (may be taken concurrently)		Prerequisites: WRT 150 and Junior standing	١,
Tarif	11	PED 265 Teaching Health in Elementary Schools	2
Total Spring/Summer Year Three	14		15
MTH 345 Discrete Mathematics Prerequisite: MTH 210	3		
Year Four			
MTH 310 Modern Algebra	3	<sup>6</sup> MTH 495 The Nature of Modern Mathematics (Capstone)	3
Prerequisites: MTH 210, and either MTH 225 or MTH 227	3	Prerequisites: MTH 210, MTH 227, MTH 310, and at least three other 300-	3
MTH 324 Algebra for Elementary Teachers	3	400 level mathematics courses	
Prerequisites: MTH 210 and (MTH 223 or (MTH 221 and MTH 222)	3	STA 312 Probability and Statistics	3
SST 309 Social Studies for Elementary Teachers	3	Prerequisites: MTH 201	
Prerequisites: Junior standing or permission of instructor		<sup>4</sup> EDS 378 Universal Design for Learning: Elementary	3
Issue	3	Prerequisite: Sophomore standing, EDF 315 & EDI 337 Recommended	
Gen Ed	3	Issue	3
GCII Eu		Gen Ed	3
Total	15	Total	15
	ration F	Professional Program	1
Teacher Assisting		Student Teaching	
EDI 330 Teacher Assisting: Elementary	5	EDI 430 Student Teaching: Elementary	10
EDF 310 Organizing and Managing Classroom Environments	3	EDF 485 The Context of Educational Issues	3
EDR 320 Reading: Assessment and Instruction	3	Must be taken with or after ED 430	
EDT 370 Technology in Education	3		
Must be taken with or after EDI 330 but before EDI 430			
Total	14	Total	13
10101	14	10101	13

See reverse for footnotes

Online at: http://www.gvsu.edu/clasadvising

<sup>\*</sup> The block tuition rate is 12-15 credits. You will pay additional tuition for any credits over 15.

EDF 100 is an exploratory elective for students uncertain about pursuing teacher certification. It can be taken in either the fall or winter semester <sup>1</sup> Students must fulfill MTH 110, MTH 122, and MTH 123 or waive the requirement through math placement. These courses do not count towards the completion of the Mathematics major.

- <sup>2</sup> Mathematics-Elementary Education students have the option of taking MTH 221 (4 cr) and MTH 222 (3 cr) in place of MTH 223.
- <sup>3</sup> Students must complete a total of two courses with an SWS attribute. One SWS should be from outside the major.
- <sup>4</sup> EDS 378 may be taken prior to the Teacher Assisting semester but **must** be completed prior to Student Teaching.
- <sup>5</sup> Students who self-place into WRT 098 should take this courser in the fall semester and then take WRT 150 in the winter semester of the first year. Students who self-place into WRT 150 should take this course in the winter semester of the first year. A grade of C or higher is required to fulfill the WRT 150 requirement.
- <sup>6</sup>Students may also complete MT 496 Senior Thesis as the capstone requirement. Consult with your mathematics faculty advisor to discuss these options.

## **Degree Requirements**

Mathematics students can pursue a Bachelor of Arts or Bachelor of Science degree. Students who wish to obtain a BA must fulfill 3<sup>rd</sup> semester proficiency in a foreign language (201 level). The BS requirements are incorporated into the major requirements and include MTH 201, MTH 202, and STA 312.

## Declaring the Mathematics and Education Major with Elementary Certification Minor:

- 1. Log into myBanner from the GVSU homepage
- 2. Once logged in select "Student", "Student Records", and then, "Change Major"
- 3. Click on the "Change Major 1/Program" box
- 4. Click on the down arrow in the box next to "New Major 1/Program," from here scroll down and choose "Mathematics Teaching-BA Elementary Education" **OR** "Mathematics Teaching-BS Elementary Education" depending on your degree
- Click "Submit." The system will automatically declare your second major in "Education" and minor in "Elementary Certification."Click "Change to New Program."

## **General Education Overlap**

General Education Categories fulfilled by the Mathematics Major for Elementary Education:		
Life Sciences with Lab: SCI 225	Physical Sciences with Lab: SCI 226	
Social and Behavioral Sciences: PSY 101	Mathematical Sciences: MTH 201	
U.S. Diversity: EDF 315		

Elementary Certification Minor (26-28 credits)				
A 2.7 cumulative GPA in the Elementary Certification minor is required for admission to the College of Education				
ENG 308 Teaching Reading: The Necessary Skills (4)	ENG 302 Introduction to Language Arts: Teaching Writing & Children's			
Prerequisites: WRT 150 and Junior Status	Literature			
SCI 225 Integrated Life Science for K-8 Teachers (4)	Prerequisite: EDI 337 or PED 265 or PED 266			
Prerequisite: MTH 221 or MTH 222 or MTH 223 (may be taken	MTH 223 Mathematics for Elementary Teachers III (5)			
concurrently)	Prerequisite: MTH 201; recommended for Mathematics Majors			
SCI 226 Integrated Physical Science for K-8 Teachers (3)				
Prerequisites: MTH 221 or MTH 222 or MTH 223 (may be taken	May be completed in place of MTH 223			
concurrently)	MTH 221 Mathematics for Elementary Teachers I (4)			
PED 265 Teaching Health in Elementary Schools (2)	• • • • • • • • • • • • • • • • • • • •			
PED 266 Move-Dance-Learn! PE & Dance for Elementary Ed (2)	Prerequisites: MTH 110 or MTH 122 and at least sophomore standing			
SST 309 Social Studies for Elementary Teachers (3)	MTH 222 Mathematics for Elementary Teachers II (3)			
Prerequisite: Junior standing or permission of instructor	Prerequisites: MTH 110 or MTH 122 and at least sophomore standing;			
MAT 300 Music, Art & Theatre for Elementary Education (3)	MTH 221 strongly recommended			

•	r in Education		
Education Major Prerequisites (12 credits)			
A 2.7 cumulative GPA in the Education Major Prerequisites is red	quired with no grade lower than a C and no courses may be taken		
Credit/No Credit			
— PSY 301 Child Development (3)	— EDF 315 Diverse Perspectives on Education (3)		
Prerequisite: PSY 101	— EDI 337 Introduction to Learning and Assessment (3)		
— EDS 378 Universal Design for Learning: Elementary (3)			
EDS 378 may be taken prior to the Teacher Assisting semester but			
must be completed prior to Student Teaching.			
Teacher Assisting (14 credits)	Student Teaching (13 credits)		
— EDI 330 Teacher Assisting-Elementary (5)	— EDI 430 Student Teaching, Elementary (10)		
— EDF 310 Organizing and Managing Classroom Environments (3)	EDI 430 seminar is also required		
— EDR 320 Reading: Assessment and Instruction (3)	— EDF 485 The Context of Educational Issues (3)		
— EDT 370 Technology in Education (3)	Must be taken with or after EDI 430		
Must be taken with or after ED 330 but before ED 430			