

MATHEMATICS -ELEMENTARY EDUCATION (MTH 110 FULFILLED)BACHELOR OF SCIENCE OR BACHELOR OF ARTS WITH SECOND MAJOR IN EDUCATION & ELEMENTARY CERTIFICATION MINORTHIS IS A **GENERAL** CURRICULUM GUIDE AND IS NOT APPLICABLE TO EVERY STUDENT. IT IS IMPORTANT TO MEET WITH YOUR ADVISOR.**A 2.7 cumulative GPA in the Mathematics major is required for admission to the College of Education**

Year One			
MTH 124 Precalculus: Functions and Models Prerequisite: MTH 110 or proficiency through math placement SEE NOTE BELOW REGARDING OPTIONS FOR THIS COURSE	5	¹ MTH 201 Calculus I Prerequisites: MTH 122 and 123; or MTH 124; or proficiency through math placement	4
Gen Ed or WRT 098 (self-placement) ⁵	3/4	PSY 101 Introductory Psychology	3
Gen Ed	3	Gen Ed	4
EDF 100 Introduction to Education (optional- see below)	2	WRT 150 Strategies in Writing ⁵	
Elective	1	(Students should not take any science general education courses in their first year. The science categories will be fulfilled by SCI 225 and 226 in the soph and junior years)	
<i>Total</i>	<i>14/15</i>	<i>Total</i>	<i>14</i>
Year Two			
MTH 202 Calculus II Prerequisite: MTH 201	4	³ MTH 210 SWS Communicating in Mathematics Prerequisites: WRT 150 and MTH 201	4
PSY 301 Child Development Prerequisite: PSY 101	3	² MTH 223 Mathematics for Elementary Teachers III Prerequisites: MTH 201; this course is equivalent to MTH 221 + 222	5
EDF 315 Diverse Perspectives for Education	3	MAT 300 Music, Art, and Theater for Elementary Education	3
PED 265 Teaching Health in Elementary Schools	2	SCI 225 Integrated Life Science for K-8	4
Gen Ed	3	Prerequisite: MTH 221 or 222 or 223 (may be taken concurrently)	
<i>Total</i>	<i>15</i>	<i>Total</i>	<i>16*</i>
Year Three			
MTH 227 Linear Algebra I Prerequisites: MTH 202	3	MTH 315 Discrete Mathematics (formerly MTH 345) Prerequisite: MTH 210	3
MTH 322 Geometry for Elementary Teachers Prerequisites: MTH 223 or both MTH 221 and MTH 222	3	MTH 323 Probability and Statistics for Elementary Teachers Prerequisite: MTH 322	3
SCI 226 Integrated Physical Science for K-8 Prerequisite: MTH 221 or 222 or 223 (may be taken concurrently)	3	ENG 308 Teaching Reading: The Necessary Skills Prerequisites: WRT 150 and Junior standing	4
EDI 337 Introduction to Learning and Assessment	3	PED 266 Move, Dance, Learn! PE & Dance for Elem. Education	2
ENG 302 Language Arts: Teaching Writing & Children's Lit. Prerequisite: WRT 150 and one of EDI 337 or PED 265 or PED 266	3	SST 309 Social Studies for Elementary Teachers Prerequisites: Junior standing or permission of instructor	3
<i>Total</i>	<i>15</i>	<i>Total</i>	<i>15</i>
Year Four			
MTH 331 Euclidean Geometry (formerly MTH 341) Prerequisites: MTH 210 and either MTH 227 or MTH 322	3	⁶ MTH 495 The Nature of Modern Mathematics (Capstone) Prerequisites: MTH 210, MTH 227, MTH 350, and at least three other 300-400 level mathematics courses	3
MTH 350 Modern Algebra I (formerly MTH 310) Prerequisites: MTH 210, and either MTH 225 or MTH 227	3	STA 312 Probability and Statistics	3
MTH 324 Algebra for Elementary Teachers Prerequisites: MTH 210 and either MTH 223 or (MTH 221 and MTH 222)	3	Prerequisites: MTH 201	
Issue	3	EDS 378 ⁴ Universal Design for Learning: Elementary Prerequisite: Sophomore standing, EDF 315 & EDI 337 Recommended	3
Gen Ed	3	Issue	3
		Gen Ed	3
<i>Total</i>	<i>15</i>	<i>Total</i>	<i>15</i>
Teacher Preparation Professional Program			
Teacher Assisting		Student Teaching	
EDI 330 Teacher Assisting: Elementary	5	EDI 430 Student Teaching: Elementary	10
EDI 310 Organizing and Managing Classroom Environments	3	EDF 485 The Context of Educational Issues Must be taken with or after ED 430	3
EDR 320 Reading: Assessment and Instruction	3		
EDT 370 Technology in Education Must be taken with or after EDI 330 but before EDI 430	3		
<i>Total</i>	<i>14</i>	<i>Total</i>	<i>13</i>

See reverse for additional footnotes

* The block tuition rate is 12-15 credits. You will pay additional tuition for any credits over 15.

MTH 124 is designed for calculus-bound students as a replacement for MTH 122 & 123. While students can still fulfill the MTH 201 prerequisite by taking MTH 122 & 123, MTH 124 is strongly recommended for students who plan to major in mathematics.

It is imperative to meet with your faculty advisor and an advisor in the CLAS Academic Advising Center regularly.

The CLAS Academic Advising Center is located in C-1-140 MAK, 616-331-8585.

Your academic advisor in the CLAS Academic Advising Center is Nick Woodward (woodwani@gvsu.edu)Online at: <http://www.gvsu.edu/clasadvising>

EDF 100 is an exploratory elective for students uncertain about pursuing teacher certification. It can be taken in either the fall or winter semester.

¹ Students must fulfill MTH 110 and either MTH 122 & MTH 123 or MTH 124, or they must waive the requirement through math placement. These courses do not count towards the completion of the Mathematics major.

² Mathematics-Elementary Education students have the option of taking MTH 221 (4 cr) and MTH 222 (3 cr) in place of MTH 223.

³ Students must complete a total of two courses with an SWS attribute. One SWS should be outside of the major.

⁴ EDS 378 may be taken prior to the Teacher Assisting semester but **must** be completed prior to Student Teaching.

⁵ Students who self-place into WRT 098 should take this course 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.

⁶ Students may also complete MTH 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 3rd 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 upon your degree.
5. 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)

Prerequisites: WRT 150 and Junior Status

SCI 225 Integrated Life Science for K-8 Teachers (4)

Prerequisite: MTH 221 or MTH 222 or MTH 223 (may be taken concurrently)

SCI 226 Integrated Physical Science for K-8 Teachers (3)

Prerequisites: MTH 221 or MTH 222 or MTH 223 (may be taken concurrently)

PED 265 Teaching Health in Elementary Schools (2)

PED 266 Move-Dance-Learn! PE & Dance for Elementary Ed (2)

SST 309 Social Studies for Elementary Teachers (3)

Prerequisite: Junior standing or permission of instructor

MAT 300 Music, Art, & Theatre for Elementary Education (3)

ENG 302 Introduction to Language Arts: Teaching Writing & Children's Literature (3)

Prerequisite: WRT 150 and one of EDI 337 or PED 265 or PED 266

MTH 223 Mathematics for Elementary Teachers III (5)

Prerequisite: MTH 201; recommended for Mathematics Majors

May be completed in place of MTH 223:

MTH 221 Mathematics for Elementary Teachers I (4)

Prerequisites: MTH 110 or MTH 122 and at least sophomore standing AND

MTH 222 Mathematics for Elementary Teachers II (3)

Prerequisites: MTH 110 or MTH 122 and at least sophomore standing; MTH 221 strongly recommended

Second Major in Education

Education Major Prerequisites (12 credits)

A 2.7 cumulative GPA in the Education Major Prerequisites is required with no grade lower than a C. No courses may be taken Credit/No Credit.

— **PSY 301 Child Development (3)**

Prerequisite: PSY 101

— **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 and a B- or better grade is required.

— **EDF 315 Diverse Perspectives on Education (3)**

— **EDI 337 Introduction to Learning and Assessment (3)**

Teacher Assisting (14 credits)

— **EDI 330 Teacher Assisting-Elementary (5)**

— **EDI 310 Organizing and Managing Classroom Environments (3)**

— **EDR 320 Reading: Assessment and Instruction (3)**

— **EDT 370 Technology in Education (3)**

Must be taken with or after EDI 330 but before EDI 430

Student Teaching (13 credits)

— **EDI 430 Student Teaching, Elementary (10)**

EDI 430 seminar is also required

— **EDF 485 The Context of Educational Issues (3)**

Must be taken with or after EDI 430