

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

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

THIS 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**

<b><sup>1</sup>MTH 110</b> Algebra Prerequisite: MTH 097 or proficiency through math placement Gen Ed or <sup>2</sup> WRT 120 (self-placement) Gen Ed Gen Ed EDF 100 Introduction to Ed (optional – see note on reverse)	4 3 3 3 2	<b><sup>1</sup>MTH 124</b> Precalculus: Functions and Models Prerequisite: MTH 110 or proficiency through math placement <b>SEE NOTE ON THE REVERSE REGARDING OPTIONS FOR THIS COURSE</b> <b>PSY 101</b> Introductory Psychology <b><sup>2</sup>WRT 130 or 150</b> Gen Ed (Students should not take science general education courses in their 1st year. The science categories will be fulfilled by SCI 225 and 226)	5 3 3 3/4 3
	<b>Total</b> 15		<b>Total</b> 14/15

**Year Two**

<b><sup>1</sup>MTH 201</b> Calculus I Prerequisites: MTH 122 and 123; or MTH 124; or proficiency through math placement <b>MTH 204</b> Linear Algebra I Prerequisites: MTH 122 and 123; or MTH 124; or proficiency through math placement <b>EDF 315</b> Diverse Perspectives for Education <b>PED 266</b> Move, Dance, Learn! PE & Dance for Elem. Ed. <b>MAT 300</b> Music, Art, and Theater for Elementary Education	4 3 3 2 3	<b>MTH 202</b> Calculus II Prerequisite: MTH 201 <b><sup>3</sup>MTH 223</b> Mathematics for Elementary Teachers III Prerequisites: MTH 201; this course is equivalent to MTH 221 + 222 <b>SCI 226</b> Integrated Physical Science for K-8 Prerequisite: MTH 221 or 222 or 223 (may be taken concurrently) <b>EDI 338</b> Introduction to Assessment in Elementary Schools	4 5 3 3
	<b>Total</b> 15		<b>Total</b> 15

**Year Three**

<b><sup>4</sup>MTH 210 SWS</b> Communicating in Mathematics Prerequisites: Gen Ed Foundations – Writing and MTH 201 <b>MTH 322</b> Geometry for Elementary Teachers Prerequisites: MTH 223 or both MTH 221 and MTH 222 <b>PSY 301</b> Child Development Prerequisite: PSY 101 <b>SCI 225</b> Integrated Life Science for K-8 Prerequisite: MTH 221 or 222 or 223 (may be taken concurrently)	4 3 3 4	<b>MTH 315</b> Discrete Mathematics Prerequisite: MTH 210 <b>MTH 323</b> Probability and Statistics for Elementary Teachers Prerequisite: MTH 322 <b>ENG 302</b> Intro.to Lang. Arts: Teaching Writing/Children's Lit. Prerequisites: Gen Ed Foundations – Writing and one of EDI 338, PED 265 or PED 266 <b>ENG 308</b> Teaching Reading: The Necessary Skills Prerequisites: Gen Ed Foundations – Writing and Junior standing <b>PED 265</b> Teaching Health in Elementary Schools	3 3 3 4 2
	<b>Total</b> 14		<b>Total</b> 15

**Year Four**

<b>MTH 324</b> Algebra for Elementary Teachers Prerequisites: MTH 210 and either MTH 223 or (MTH 221 and MTH 222) <b>MTH 331</b> Euclidean Geometry Prerequisites: MTH 210 and either MTH 204 or MTH 322 <b>SST 309</b> Social Studies for Elementary Teachers Prerequisites: Junior standing or permission of instructor Issue Gen Ed	3 3 3 3 3	<b>MTH 350</b> Modern Algebra I Prerequisites: MTH 210, and either MTH 204 or MTH 225 <b>STA 312</b> Probability and Statistics Prerequisites: MTH 201 <b><sup>5</sup>EDS 378</b> Universal Design for Learning: Elementary Prerequisite: Sophomore standing, EDF 315 & EDI 338 Recommended Issue Gen Ed	3 3 3 3 3
	<b>Total</b> 15		<b>Total</b> 15

**Spring/Summer Year Four**

<b><sup>6</sup>MTH 495</b> The Nature of Modern Mathematics (Capstone)	Prerequisites: MTH 204, MTH 210, MTH 350, and at least three other 300-400 level mathematics courses	3
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**Teacher Preparation Professional Program**

<b>Teacher Assisting</b> <b>EDI 330</b> Teacher Assisting: Elementary <b>EDI 310</b> Organizing and Managing Classroom Environments <b>EDR 320</b> Reading: Assessment and Instruction <b>EDT 370</b> Technology in Education Must be taken with or after EDI 330 but before EDI 430	5 3 3 3	<b>Student Teaching</b> <b>EDI 430</b> Student Teaching: Elementary <b>EDF 485</b> The Context of Educational Issues Must be taken with or after ED 430	10 3
	<b>Total</b> 14		<b>Total</b> 13

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

Your academic advisor in the CLAS Academic Advising Center is Nick Woodward ([woodwani@gvsu.edu](mailto:woodwani@gvsu.edu))

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

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

\* 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.

**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** 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.

<sup>2</sup> Students who self-place into **WRT 120** should take this course in the fall semester and then take **WRT 130** in the winter semester of their first year. Students who self-place into **WRT 150** can take in either semester during their first year. Students will not need to take **WRT 150** if they have earned credit for the course through AP/Dual Enrollment. A grade of C or better is required in **WRT 130** or **150** in order to satisfy the **WRT** requirement at GVSU.

<sup>3</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>4</sup> Students must complete a total of two courses with an SWS attribute. One SWS should be from outside the major.

<sup>5</sup> **EDS 378** may be taken prior to the Teacher Assisting semester but **must** be completed prior to Student Teaching.

<sup>6</sup> 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 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 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: <b>SCI 225</b>	Physical Sciences with Lab: <b>SCI 226</b>
Social and Behavioral Sciences: <b>PSY 101</b>	Mathematical Sciences: <b>MTH 201</b>
U.S. Diversity: <b>EDF 315</b>	

#### 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: Gen Ed Foundations – Writing 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: Gen Ed Foundations – Writing and one of **EDI 338**, **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 and 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 338** Introduction to Assessment in Elementary Schools (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**