

# 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 admission to the College of Education

Year One			
<sup>1</sup> MTH 110 Algebra Prerequisite: MTH 110 or proficiency through math placement Gen Ed or <sup>5</sup> WRT 098 (self-placement) Gen Ed Gen Ed EDF 100 Introduction to Ed (optional – see note on reverse) <b>(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)</b>	4  3/4 3 3 2	<sup>1</sup> MTH 124 Precalculus: Functions and Models Prerequisite: MTH 110 or proficiency through math placement <b>SEE NOTE BELOW REGARDING OPTIONS FOR THIS COURSE</b> PSY 101 Introductory Psychology <sup>5</sup> WRT 150 Strategies in Writing Gen Ed	5  3 4 3
<i>Total</i>	15/16	<i>Total</i>	15
Year Two			
<sup>1</sup> MTH 201 Calculus I Prerequisites: MTH 122 and 123; or MTH 124; or proficiency through math placement PSY 301 Child Development Prerequisite: PSY 101 EDF 315 Diverse Perspectives for Education PED 266 Move, Dance, Learn! PE & Dance for Elem. Ed. MAT 300 Music, Art, and Theater for Elementary Education	4  3 3 2 3	MTH 202 Calculus II Prerequisite: MTH 201 <sup>2</sup> MTH 223 Mathematics for Elementary Teachers III Prerequisites: MTH 201; this course is equivalent to MTH 221 + 222 SCI 226 Integrated Physical Sciences for K-8 Prerequisite: MTH 221 or 222 or 223 (may be taken concurrently) EDI 337 Introduction to Learning and Assessment	4 5 3 3
<i>Total</i>	15	<i>Total</i>	15
Year Three			
<sup>3</sup> MTH 210 SWS Communicating in Mathematics Prerequisites: WRT 150 and MTH 201 MTH 227 Linear Algebra I Prerequisites: MTH 202 MTH 322 Geometry for Elementary Teachers Prerequisites: MTH 223 or MTH 221 and MTH 222 SCI 225 Integrated Life Sciences for K-8 Prerequisite: MTH 221 or 222 or 223 (may be taken concurrently)	4 3 3 4	MTH 331 Euclidean Geometry (formerly MTH 341) Prerequisites: MTH 210 and either MTH 227 or MTH 322 MTH 323 Probability and Statistics for Elementary Teachers Prerequisite: MTH 322 ENG 302 Intro.to Lang. Arts: Teaching Writing/Children's Lit. Prerequisite: WRT 150 and one of EDI 337 or PED 265 or PED 266 ENG 308 Teaching Reading: The Necessary Skills Prerequisites: WRT 150 and Junior standing PED 265 Teaching Health in Elementary Schools	3 3 3 4 2
<i>Total</i>	14	<i>Total</i>	15
Spring/Summer Year Three			
MTH 315 Discrete Mathematics (formerly MTH 345) Prerequisite: MTH 210	3		
Year Four			
MTH 350 Modern Algebra I (formerly MTH 310) Prerequisites: MTH 210, and either MTH 225 or MTH 227 MTH 324 Algebra for Elementary Teachers Prerequisites: MTH 210 and (MTH 223 or (MTH 221 and MTH 222)) SST 309 Social Studies for Elementary Teachers Prerequisites: Junior standing or permission of instructor Issue Gen Ed	3 3 3 3 3	<sup>6</sup> 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 STA 312 Probability and Statistics Prerequisites: MTH 201 <sup>4</sup> EDS 378 Universal Design for Learning: Elementary Prerequisite: Sophomore standing, EDF 315 & EDI 337 Recommended Issue Gen Ed	3 3 3 3 3
<i>Total</i>	15	<i>Total</i>	15
Teacher Preparation Professional Program			
<b>Teacher Assisting</b> EDI 330 Teacher Assisting: Elementary EDF 310 Organizing and Managing Classroom Environments EDR 320 Reading: Assessment and Instruction EDT 370 Technology in Education Must be taken with or after EDI 330 but before EDI 430	5 3 3 3	<b>Student Teaching</b> EDI 430 Student Teaching: Elementary EDF 485 The Context of Educational Issues Must be taken with or after EDI 430	10 3
<i>Total</i>	14	<i>Total</i>	13

See reverse for footnotes

It is imperative to meet with your faculty advisor and 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, MTH 122 and MTH 123, or MTH 124 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 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 on 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**

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

#### **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.

#### **— 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)**

##### **— EDF 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 ED 330 but before ED 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