MATHEMATICS-EDUCATION 5-12 (STARTING IN MTH 110)

BACHELOR OF ARTS OR BACHELOR OF SCIENCE

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

Both your cumulative and major GPAs must be at least 2.7 to be registered for the Teacher Apprenticeship courses and corresponding field placement.

Year One			
MTH 110 Algebra	4	**MTH 124** Precalculus: Functions and Models	5
Prereq: MTH 109, or math placement		Prereq: MTH 110, or math placement	
EDF 115 Intro to Education GE Social/Behavioral	3	**PSY 101** Introductory Psychology GE Social/Behavioral	3
[2]**WRT 150** Gen Ed	4	Gen Ed GE Physical/Life Science with Lab	4
Optional elective	1		
Total	12	Total	12

Year Two			
[1]**MTH 201** Calculus I GE Math	4	**MTH 202** Calculus II	4
Prereq: MTH 122 & 123, or MTH 124, or math placement		Prerequisite: MTH 201	
MTH 204 Linear Algebra I	3	[3]**MTH 210 SWS** Communicating in Mathematics	4
Prereq: MTH 122 & 123, or MTH 124, or math placement		Prerequisites: Gen Ed Foundations – Writing and MTH 201	
Gen Ed GE Life/Physical Science without Lab	3	**PSY 331** Adolescent Development	3
EDR 225 Intro to Teaching Multilingual Learners GE Cultures-GP	3	Prerequisite: PSY 101	
		Gen Ed GE Historical Analysis	3
Total	13	Total	14

Year Three			
MTH 229 Teaching High School Mathematics	3	**MTH 324** Algebraic Reasoning in Grades 3-9	3
Prerequisites: MTH 201 or equivalent and sophomore standing		Prerequisite: MTH 326 or (MTH 210 and one of 229, 322, 323)	
MTH 315 Discrete Mathematics	3	**MTH 331** Euclidean Geometry	3
Prerequisite: MTH 210		Prerequisites: MTH 210 and either MTH 204 or MTH 322	3
STA 312 Probability and Statistics	3	Gen Ed GE Philosophy and Literature	
Prerequisites: MTH 201		**EDF 315** Diverse Perspectives on Education GE US Diversity	3
[3]**EDF 260 SWS** Educational Research & Assessment SWS	3		
Total	12	Total	12

Year Four			
MTH 313 Teaching Probability & Statistics in Grades 5-12	3	**MTH 329** Teaching Middle Grades Math	3
Prerequisites: MTH 229 and STA 312		Prerequisites: **C or better** in MTH 210 and MTH 324	
MTH 350 Modern Algebra I	3	Optional elective	3
Prerequisites: MTH 210, and either MTH 204 or MTH 225		Gen Ed GE Arts	3
Gen Ed GE Philosophy and Literature	3	**MTH 495** The Nature of Modern Mathematics (Capstone)	3
[4]**Math elective**	3	Prerequisites: MTH 204, 210, and at least four other 300-400 level	
		OR MTH 496 Senior Thesis (Capstone)	
		Prerequisites: 27 cr. in major, major GPA 3.0+, & permission of instructor	
Total	12	Total	12

Year Five - Teacher Preparation Professional Program			
[5]**Apprenticeship**		**Internship**	
EDI 331/333/334 Secondary Teacher Apprenticeship	4	**EDI 431/433/434** Secondary Teacher Internship	7
EDI 332 Secondary Apprenticeship Disciplinary Cont. Sem.	2	**EDI 432** Secondary Internship Disciplinary Content Sem.	2
Corequisite: EDI 331, 333, 334, or 335		Corequisite: EDI 431, 433, 434, or 435	
[3]**EDR 321 SWS** Content Area Literacy	3	**EDF 495** Reflective Inquiry and Practice	3
Corequisite: EDI 331, 333, 334, or 335		Corequisite: EDI 430, 431, 433, 434, or 435	
EDS 319 Universal Design for Learning GE Issues	3		
Prerequisite: Junior standing			
EDT 477 Secondary Teaching with Technology GE Issues	3		
Total	15	Total	12

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

[1] **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**

[2] Students who self-place into WRT 120 should take this course in the fall and then WRT 130 in the winter of their first year. Students who self-place into WRT 150 can take in either semester during their first year. A grade of C or better is required in WRT 130 or 150 in order to satisfy the WRT requirement at GVSU.

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

[4] Mathematics Education-5-12 students must complete one elective course in Math. Options are listed below.

It is imperative to meet with your CLAS and CECI faculty advisors 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.
Online at: http://www.gvsu.edu/clasadvising

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 204, and MTH 210. To earn a degree from GVSU, all students must complete the following: 120 total credits, all major/minor requirements, all general education requirements, at least 58 credits from a 4-year institution, and the last 30 credits of the degree completed through GVSU.

Declaring the Mathematics and Secondary Education Major

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 Education 5-12" **OR** "Mathematics Teaching-BS Education 5-12" depending on your degree
5. Click "Submit." The system will automatically declare your 2nd major in "Secondary Education"

General Education Categories fulfilled by the Mathematics – Education Majors for 5-12:	
Social and Behavioral Sciences: **PSY 101, EDF 115**	Issues: **EDS 379, EDT 477**
Mathematical Sciences: **MTH 201**	Cultures-U.S. Diversity: **EDF 315**
Cultures-Global Perspectives: **EDR 225**	

Second Major in Secondary Education	
A 2.7 cumulative GPA in the Secondary Education Major Courses is required	
— **EDF 115** Introduction to Education (3) — **EDR 225** Intro to Teaching Multilingual Learners (3) — **EDF 315** Diverse Perspectives on Education (3) — **EDF 260** Educational Research and Assessment (3)*	— **PSY 331** Adolescent Development (3) Prerequisite: PSY 101 ***Must earn a B- or better**
Apprenticeship (15 credits)	**Internship (12 credits)**
— **EDI 331/333/334** Secondary Teacher Apprenticeship and Seminar (4)* — **EDI 332** Secondary Teacher Apprenticeship Disciplinary Cont. Sem. (2) — **EDR 321** Content Area Literacy (3)* — **EDT 477** Teaching with Technology (3)* — **EDS 319** Universal Design for Learning: Secondary (3)*	— **EDI 431/433/434** Secondary Teacher Internship and Seminar (7)* — **EDI 432** Secondary Internship Disciplinary Content Seminar (2) — **EDF 495** Reflective Inquiry and Practice (3)* — ***Must earn a B- or better**

Application requirements for Teacher Apprenticeship and Teaching Internship experiences can be found at https://www.gvsu.edu/education/undergraduate/apply-for-field-placement-4.htm If you have any questions about the clinical experience applications, please contact the Office of Certification and Accreditation at (616) 331-6650 or email oca@gvsu.edu

Math Elective Courses (Choose one of the following)	
MTH 205 Linear Algebra II **MTH 296** Introduction to Mathematical Research **MTH 304** Analysis of Differential Equations **MTH 360** Operations Research	**MTH 408** Real Analysis I* **MTH 431** Non-Euclidean Geometry **MTH 450** Modern Algebra I **MTH 495** Nature of Modern Math (if MTH 496 is taken as capstone) **MTH 496** Senior Thesis (if MTH 495 is taken as capstone)
* This course has additional prerequisites	May be used with Unit Head Permission: MTH 380, 386, 387, 399, and 480