COLLEGE OF LIBERAL ARTS AND SCIENCES (CLAS) ACADEMIC ADVISING CENTER 2019-2020

MATHEMATICS-SECONDARY EDUCATION (STARTING IN MTH 201)

BACHELOR OF ARTS OR BACHELOR OF SCIENCE WITH A SECOND MAJOR IN EDUCATION & TEACHABLE MINOR REQUIRED

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			
[1]**MTH 201** Calculus I Prerequisites: MTH 122 and MTH 123, or MTH 124 or proficiency through math placement	4	**MTH 202** Calculus II Prerequisite: MTH 201	4
		MTH 204 Linear Algebra I (formerly MTH 227) Prerequisites: MTH 122 and MTH 123, or MTH 124 or proficiency through math placement	3
[6]**WRT 150** Strategies in Writing	4		
Gen Ed	3		3
Minor	3	**PSY 101** Introductory Psychology	3
EDF 100 Introduction to Education **(optional – see below)**	2	Gen Ed or Minor Course	1
		Elective	
Total	*14-16**	*Total*	*14*
Year Two			
MTH 203 Calculus III Prerequisite: MTH 202	4	**MTH 315** Discrete Mathematics Prerequisite: MTH 210	3
[2]**MTH 210 SWS** Communicating in Mathematics Prerequisites: WRT 150 and MTH 201	4	**PSY 301** Child Development Prerequisite: PSY 101	3
EDF 315 Diverse Perspectives for Education	3	**STA 312** Probability and Statistics Prerequisites: MTH 201	3
Minor	3		
		Gen Ed	3
		Minor	3
Total	*14*	*Total*	*15*
Year Three			
MTH 331 Euclidean Geometry Prerequisites: MTH 210 and either MTH 204 or MTH 322	3	**MTH 350** Modern Algebra I Prerequisites: MTH 210, and either MTH 204 or MTH 225	3
MTH 229 Mathematical Activities for Secondary Teachers Prerequisites: MTH 201 or equivalent and sophomore standing	3	**MTH 329** Teaching Middle Grades Math Prerequisites: C or better in MTH 202, MTH 210, and one of the following: MTH 229, 322, 323, or 324 and Junior standing	3
EDI 339 Introduction to Assessment in Secondary Schools	3		
Gen Ed	3	Gen Ed	3
Minor	3	Gen Ed	3
		Minor	3
Total	*15*	*Total*	*15*
Year Four			
[3]MTH Cognate Course	3	[7]**MTH 495** The Nature of Modern Mathematics (Capstone) Prerequisites: MTH 204, MTH 210, MTH 350, and at least three other 300-400 level mathematics courses	3
[4]MTH Elective	3		
Gen Ed	3		
Issue	3	[5]**EDS 379** Universal Design for Learning: Secondary	3
Minor	3	Issue	3
		Minor	3
		Minor	3
Total	*15*	*Total*	*15*
Teacher Preparation Professional Program			
Teacher Assisting		**Student Teaching**	
EDI 331 Methods and Strategies of Secondary Teaching	5	EDI 431 Student Teaching: Secondary	8
EDI 310 Organizing and Managing Classroom Environments	3	EDI 432 Student Teaching: Secondary Content	2
[2]EDR 321 **SWS** Content Area Literacy	3	EDF 485 The Context of Educational Issues	3
EDT 370 Technology in Education Must be taken with or after EDI 331 but before EDI 431	3	Must be taken with or after EDI 431	
Total	*14*	*Total*	*13*

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

This curriculum could potentially be completed in 4.5 years depending on size of minor and any potential overlap with general education.

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, 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 must complete a total of two courses with an SWS attribute.

[3] Mathematics-Secondary students must complete one Math Cognate Course. Options are listed on the back of this page.

More footnotes on the reverse.

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

[4] Mathematics-Secondary students must complete one elective course in Math. These electives are listed below.
[5] EDS 379 may be taken prior to the Teacher Assisting semester but **must** be completed prior to Student Teaching. Please consult with your College of Education Advisor to determine an appropriate time to take this course.
[6] 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.
[7]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 Teachable 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 Secondary Education" **OR** "Mathematics Teaching-BS Secondary Education" depending on your degree
5. Click "Submit." The system will automatically declare your 2nd major in "Education" and give you the option to declare a minor. Choose an appropriate minor from the list and then click "Change to New Program"

Teachable Majors and Teachable Minors for Secondary Education

Teachable Majors		Teachable Minors	
Biology	Mathematics	Applied Linguistics - ESL	History-Teaching
Chemistry	Music (K-12)	Biology-Teaching	Mathematics-Secondary Education
Earth/Space Science	Physical Education (K-12)	Chemistry-Teaching	Physical Education-Teaching
English	Physics	Earth/Space Science-Teaching	Physics-Teaching
French	Social Studies	Economics-Teaching	Political Science-Teaching
German	Spanish	English-Teaching	Psychology-Teaching
History	Visual Arts (K-12)	French-Teaching	School Health Education
Integrated Sciences		Geography-Teaching	Spanish-Secondary Teaching
Latin		German-Teaching	

General Education Overlap

General Education Categories fulfilled by the Mathematics Major for Secondary Education:	
Social and Behavioral Sciences: PSY 101	U.S. Diversity: EDF 315
Mathematical Sciences: MTH 201	

Second Major in Education

Education Major Prerequisites (9 credits)
A 2.7 cumulative GPA in the Education Major Prerequisites is required with no grade lower than a C

- — **EDF 315 Diverse Perspectives on Education** (3)
- — **EDI 339 Introduction to Assessment in Secondary Schools** (3)
- — **PSY 301 Child Development** (3)
  Prerequisite: PSY 101
- — **EDS 379 Universal Design for Learning: Secondary** (3)
  (EDS 379 may be taken prior to the Teacher Assisting semester but **must** be completed prior to Student Teaching.)

Teacher Assisting (14 credits)

- — **EDI 331 Teacher Assisting-Secondary** (5)
- — **EDI 310 Organizing and Managing Classroom Environments** (3)
- — **EDR 321 Content Area Literacy** (3)
- — **EDT 370 Technology in Education** (3)
  (Must be taken with or after EDI 331 but before EDI 431)

Student Teaching (13 credits)

- — **EDI 431 Student Teaching, Secondary** (8)
- — **EDI 432 Student Teaching, Secondary Content** (2)
- — **EDF 485 The Context of Educational Issues** (3)
  (Must be taken with or after EDI 431)

Mathematics Cognate Courses (Choose one of the following)

BIO 355 Human Genetics	**CMB 351** Bioinformatics	**PHI 203** Intermediate Logic
BIO 375 Genetics	**CMB 452** Computational Biology	**PHY 230** Principles of Physics I
CHM 351 Introduction to Physical Chemistry	**ECO 342** Strategic Games	**PSY 300** Research Methods in Psychology
CIS 160 Programming with Visual Basic	**ECO 400** Econometrics and Forecasting	**STA 314** Statistical Quality Methods
CIS 161 Computational Science	**GEO 470** Geophysics	**STA 345** Statistics in Sports
CIS 162 Computer Science I	**HSC 201** The Scientific Revolution	**STA 412** Mathematical Statistics I
CIS 261 Structured Programming in C		

Math Elective Courses (Choose one of the following)

MTH 205 Linear Algebra II	**MTH 405** Numerical Analysis	**MTH 465** Automata and Theory of Computation
MTH 300 Applied Analysis I	**MTH 408** Advanced Calculus I	**MTH 495** Nature of Modern Math (if MTH 496 is taken as capstone)
MTH 304 Analysis of Differential Equations	**MTH 409** Advanced Calculus II	
MTH 360 Operations Research	**MTH 431** Non-Euclidean Geometry	**MTH 496** Senior Thesis (if MTH 495 is taken as capstone)
MTH 401 Mathematics for the Physical Sciences	**MTH 441** Topology	
MTH 402 Complex Variables	**MTH 450** Modern Algebra I	

With Unit Head Permission: MTH 380, 386, 387, 399, and 480

Courses not applicable as Math electives are: MTH 302, 312, 322, 323, 324, 325