COLLEGE OF LIBERAL ARTS AND SCIENCES (CLAS) ACADEMIC ADVISING CENTER 2016-2017

MATHEMATICS - SECONDARY EDUCATION (STARTING MTH 110)

[7]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 110 Algebra Prerequisite: MTH 097 or proficiency through math placement	4	[1]MTH 122 College Algebra Prerequisite: MTH 110 or proficiency through math placement	3
Gen Ed or [6]WRT 098 (self-placement)	3/4	[1]MTH 123 Trigonometry Prerequisite: MTH 122 (may be taken concurrently) or proficiency through math placement	3
Gen Ed	3		
Minor	3		
EDF 100 Introduction to Education **(optional - see below)**	2	PSY 101 Introductory Psychology	3
		Minor	3
		[6]WRT 150 Strategies in Writing	4
Total	*15-16*	*Total*	*16**
Year Two			
[1]MTH 201 Calculus I Prerequisites: MTH 122 and 123 or proficiency through math placement	4	MTH 202 Calculus II Prerequisite: MTH 201	3
PSY 301 Child Development Prerequisite: PSY 101	3	[2]MTH 210 **SWS** Communicating in Mathematics Prerequisites: WRT 150 and MTH 201	4
EDF 315 Diverse Perspectives for Education	3	EDI 337 Introduction to Learning and Assessment	3
Gen Ed	3	Gen Ed	3
Minor	3	Minor	3
Total	*16**	*Total*	*16**
Year Three			
MTH 203 Calculus III Prerequisite: MTH 202	4	MTH 229 Mathematical Activities for Secondary Teachers Prerequisites: MTH 201 or equivalent and sophomore standing	3
MTH 227 Linear Algebra I Prerequisite: MTH 202	3	MTH 315 Discrete Mathematics (formerly MTH 345) Prerequisite: MTH 210	3
[3]MTH Cognate Course	3	MTH 331 Euclidean Geometry (formerly MTH 341) Prerequisites: MTH 210 and either MTH 227 or MTH 322	3
Gen Ed	3		
Minor	3	Gen Ed	3
		Gen Ed	3
Total	*16**	*Total*	*15*
Year Four			
MTH 350 Modern Algebra I (formerly MTH 310) Prerequisites: MTH 210, and either MTH 225 or MTH 227	3	[8]MTH 495 The Nature of Modern Mathematics (Capstone) Prerequisites: MTH 210, MTH 227, MTH 310, and at least three other 300-400 level mathematics courses	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. Junior standing	3	STA 312 Probability and Statistics Prerequisite: MTH 201	3
[4]MTH Elective	3	[5]EDS 379 Universal Design for Learning: Secondary	3
Issue	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
EDF 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.

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 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 below.

See reverse side for additional footnotes.

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. Options 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 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.
[7]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.
[8]Students may also complete MTH 496 – Senior Thesis - as the capstone requirement. Consult with your mathematics faculty advisor to discuss these options.

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	Biology-Teaching	German-Teaching
Chemistry	Music (K-12)	Chemistry-Teaching	History-Teaching
Earth/Space Science	Physical Education (K-12)	Computer Science-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
Latin		Geography-Teaching	Spanish-Secondary 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 337 Introduction to Learning and Assessment** (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)
- **EDF 310 Organizing and Managing Classroom Environments** (3)
- **EDR 321Content 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 452 Computational Biology	PHI 203 Intermediate Logic
BIO 375 Genetics	EGR/CIS 261 Structured Programming in C	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	ECO 412 Applied Mathematical Economics	STA 345 Statistics in Sports
CIS 162 Computer Science I	GEO 470 Geophysics	STA 412 Mathematical Statistics I
CMB 351 Bioinformatics	HSC 201 The Scientific Revolution	

Math Elective Courses (Choose one of the following – must be at the 300 level or above)

MTH 300 Applied Analysis I	MTH 401 Mathematics for the Physical Sciences	MTH 465 Automata and Theory of Computation
MTH 304 Analysis of Differential Equations	MTH 402 Complex Variables	MTH 480 Special Topics
MTH 327 Linear Algebra II	MTH 405 Numerical Analysis	MTH 490 Internship
MTH 360 Operations Research	MTH 408 Advanced Calculus I	MTH 495 Nature of Modern Math (if MTH 496 is taken as capstone)
MTH 380 Special Topics	MTH 409 Advanced Calculus II	MTH 496 Senior Thesis (if MTH 495 is taken as capstone)
MTH 386 Study Abroad in Mathematics Education	MTH 410 Modern Algebra II	
MTH 387 Study Abroad in Mathematics	MTH 431 Non-Euclidean Geometry	
MTH 399 Independent Readings	MTH 441 Topology	

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