

MATHEMATICS FOR SECONDARY TEACHING MAJOR

Updated April 2011

The major in Mathematics for Secondary teaching consists of a minimum of 34 credits. Candidates for certification in this major must pass the Michigan Test for Teacher Certification (MTTC) in Secondary Mathematics (Test #22). You must demonstrate your knowledge in following categories:

Subarea	Approximate % of Questions on Test
1. Mathematical Processes & Number Concepts	22%
2. Patterns, Algebraic Relations & Functions	28%
3. Measurement and Geometry	22%
4. Data Analysis, Statistics, Probability, Discrete Math	28%

You may access a study guide at the MTTC testing site; the courses below have been selected so that you will be well prepared for the test. The following chart is intended to provide you a guide for scheduling your semesters and for keeping track of your grade point average.

CALCULUS I FOUNDATION COURSES (4 credits)

SUBJECT/ COURSE	TITLE	CREDIT HOURS	SEMESTER	GRADE
MATH 126 OR MATH 131	Calculus with Review II Calculus I	4 4		
Prerequisite for MATH 126: MATH 125 with C- or better. (Math 125 counts as 4 credits toward graduation, but not toward the program.)				
Students may earn credit for Calculus I by taking the CLEP exam.				

100-200 LEVEL COURSES (12 credits)

SUBJECT/ COURSE	TITLE	CREDIT HOURS	SEMESTER	GRADE
MATH 132	Calculus II	4		
Prerequisite for MATH 132: MATH 126 or MATH 131 with C- or better, or AP or CLEP credit for Math 131.				
MATH 231	Multivariable Mathematics I	4		
Prerequisite for MATH 231: MATH 132 with C- or better.				
MATH 232	Multivariable Mathematics II	4		
Prerequisite for MATH 232: MATH 231 with C- or better.				

UPPER LEVEL REQUIRED COURSES (12 credits)

SUBJECT/ COURSE	TITLE	CREDIT HOURS	SEMESTER	GRADE
MATH 280	Bridge to Higher Mathematics	3		
Prerequisite for MATH 280: Math 132				
MATH 311 & MATH 312	Statistical Methods Applied Statistical Models	2 2		
Prerequisite for MATH 311/312: Math 132 or High School Statistics				
MATH 321	History of Math	2		
Prerequisite for MATH 321: Math 132				
MATH 351	College Geometry	3		
Prerequisite for MATH 351: MATH 280				

300 LEVEL COURSES (6 credits)

SUBJECT/ COURSE	TITLE	CREDIT HOURS	SEMESTER	GRADE
MATH 331	Real Analysis I	3		
Prerequisite for MATH 331: MATH 232 and MATH 280				
MATH 341	Algebraic Structures I	3		
Prerequisite for MATH 341: MATH 232 and MATH 280				

A METHODS COURSE - REQUIRED (3 credits) **This MUST be completed prior to the student teaching semester!** All Secondary Education students are required to take a methods course in their major area. This does not count for the mathematics major requirements, but rather for the Certification sequence.

COURSE	TITLE	CR. HRS.	SEMESTER	GRADE
EDUC 323	Teaching Mathematics in the Secondary School (offered only Fall semester / odd years)	2		
EDUC 324	Teaching Mathematics in the Secondary School Field Placement (offered only Fall semester / odd years)	1		

