Secondary Math Education/Mathematics (Education Track) Double Major

Name: **UID:**

General Education Requirements

Fundamental Studies

Requirements:	Course	Credits	Grade
Academic Writing (AW)	ENGL 101	3	
Professional Writing (PW)		3	
Oral Comm. (OC)		3	
Math (MA)	MATH 140	4	
Analytic Reasoning (AR)	MATH 140	-	

Distributive Studies

Requirements: 25 credits	Course	Credits	Grade
Natural Science Lab (NL)	Science sequence course	4	
Natural Sciences (NS)	Science sequence course	3-4	
History/Social Sciences (HS)	TLPL 414	3	
History/Social Sciences (HS)		3	
Humanities (HU)		3	
Humanities (HU)		3	
Scholarship in Practice (SP)	TLPL 101 & TLPL 102	3	
Scholarship in Practice (SP)		3	

Big Questions

Normally double counted with Distributive Studies

Requirements: 6 credits	Course	Credits	Grade
Big Questions		3	
Big Questions		3	

Diversity

(overlap permitted with Distributive Studies and/or Big Questions)

Requirements: 6 credits	Course	Credits	Grade
Understanding Plural Soc. (UP)		3	
Understanding Plural Soc. (UP) or Cultural Competency (CC)	TLPL 401	3	

Experiential Learning- opitional

(overlap permitted withother requirements/courses)

Requirements: __credits	Course	Credits	Grade
			n/a
			n/a

Students must earn a minimum of 120 credits to complete a degree.

Requirements for Graduation:

- ☐ At least 30 credits must be earned at UMD
- ☐ 15 of the final 30 credits must be earned at the 300-400 level
- ☐ 12 upper level major credits must be earned at UMD

*Double counts with Gen Ed requirements

Content Major Degree Requirements Math Education Track

Lower level requirements	Credits	Grade
MATH 140 Calculus I	4	
MATH 141 Calculus II	4	
MATH 240 Linear Algebra (or MATH 340 Honors Sequence)	4	
MATH 241 Calculus III (or MATH 341 Honors Sequence)	4	
Upper level requirements		
MATH 310 Introduction to Analysis	3	
MATH 410 Advanced Calculus I	3	
MATH 402 or 403 Algebraic Structure/Abstract Algebra	3	
MATH 430 Euclidean & Non-Euclidean Geometries	3	
MATH 406, 445, 446, 456, or 475 (Theory/Logic)	3	
MATH 246, 341, 401, 420, 452, 462, or AMSC 460, or 466	3	
400 level MATH Elective (may not include MATH 400, 461, 478, 480-484, AMSC 462 or STAT 464): **MATH 470**	3-6	
STAT 400 or 410 Applied Probability and Stats/Probability Theory	3	
Programming Requirement ***(May be exempted through demonstrated adequate programming knowledge or prior course experience.)***		
CMSC 106, 131, 132, PHYS 165, ENEE 150 or other courses as approved	3-4	
Science Sequence* - One of the following sequences		
CHEM 131/132 & CHEM 231/232*	4, 4	
BSCI 170/171 & BSCI 160/161*	4, 4	
PHYS 161 & PHYS 260/261*	4, 4	
ASTR 120 & ASTR 121*	3, 4	
GEOL 100/110 & one of: GEOL 322, 340, 341 or 375*	4, 3-4	
AOSC 200/201 & any 400-level AOSC Course	4, 3-4	
Or other sequences as approved		
College of Education Degree Requirements		
Year 1 - Benchmark Requirement		
AW with C- or higher		
MA with C- or higher		
Gateway Requirements		
TLPL 401 with B- or higher	3	
9 credits of content course work with C- or higher		
Pre-Professional Education Requirements		
TLPL101 Inquiry Approach to Teaching STEM (Step 1)	1	
TLPL102 Inquiry Teaching of STEM in Middle School	2	
EDHD 426 Cognitive and Motivational Literacy Content	3	
MATH 274 History of Mathematics (Fall Only)	3	
MATH 470 Mathematics for Secondary Education	3	
TLPL 414 Knowing and Learning in Mathematics and Science	3	
TLPL 401 Student-Centered Curriculum and Instruction	3	
TLPL 415 Perspectives in Science	3	
Professional Education Requirements		
TLPL 403 Teaching and Learning High School Mathematics (Fall Only)	3	
TLPL 479D Field Experiences in Education; Secondary Mathematics Education (Fall only)	1	
TLPL 478D Professional Seminar in Ed; Professional Seminar in Education: Mathematics (Spring Only)	1	
TLPL 489D Internship in Education: Mathematics (Spring Only)	12	
TLPL 477 Special Topics in Education; Teaching Academically, Culturally and Linguistically Diverse Students in Secondary Education (Spring Only)	2	

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Secondary Math Education/Math Double Major Four Year Academic Plan

Year 1	Fall	Cr.	Spring	Cr.
Benchmark Requirements	ENGL 101 (AW)	3	MATH 141	4
AW with C- or higher	MATH 140 (MA/AR)	4	Science Sequence II (NL)	3-4
MA with C- or higher	Science Sequence I (NL)	4	ORAL COMMUNICATION (OC)	3
	HUMANITIES (HU)*	3	HISTORY/ SOCIAL SCIENCE (HS)*	3
	TLPL 101	1	TLPL 102 (SP, with TLPL 101)	2
	UNIV 100	1		
	Total	*16*	*Total*	*15-16*
Year 2	**Fall**	**Cr.**	**Spring**	**Cr.**
	MATH 240	4	MATH 310	3
	MATH 241	3	MATH 470 Math for Sec Ed	3
	Programming Requirement	3-4	SCHOLARSHIP IN PRACTICE (SP)	3
	TLPL 414 Knowing and Learning Math and Sci (HS)	3	HUMANITIES (HU)	3
Test of Basic Skills	MATH 274 History of Mathematics	3	Elective*	3
	Total	*16-17*	*Total*	*15*
Year 3	**Fall**	**Cr.**	**Spring**	**Cr.**
Apply to the COE by Dec. 1st	MATH 410	3	MATH 406	3
Gateway Requirement:	STAT 400 or 410	3	MATH 430	3
TLPL 401 with B- or higher	PROFESSIONAL WRITING (PW)	3	EDHD 426	3
C- or better in all content area coursework & 9 credits of content coursework with at least a 2.7 cumulative GPA.	TLPL 401 Student Centered. Curr. & Instruction (CC)	3	TLPL 415 Perspectives in Science	3
	Elective*	3	Elective*	3
Cumulative GPA of 2.75	*Total*	*15*	*Total*	*15*
Year 4	**Fall**	**Cr.**	**Spring**	**Cr.**
	YEARLONG INTERNSHIP			
	MATH xxx	3	TLPL 478D	1
	MATH 402	3	TLPL 489D	12
	TLPL 403 Teaching and Learing HS Math	3	TLPL 477	2
	TLPL 479D Field Experience	1		
	Elective*	3		
	Total	*13*	*Total*	*15*
			Total Degree Credits:	120-122

This is a proposed plan and the College of Education does not guarantee that these courses will be offered in the designated semester. Consult the *Schedule of Classes* for class availability and meeting times.

***Students must complete Understanding Plural Society and Cultural Competence courses that may also fulfill a Distributive Studies category. All students must complete two Distribute Studies courses that are approved for Big Questions courses.**

Students must also meet with their Academic Advisor in CMNS / Math Department to discuss the Mathematics course requirements.

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Secondary Math Education/Mathematics Double Major, B.S.
Benchmarks

45-credit review
Completion of English and Math fundamental studies with a C- or better
Minimum cumulative GPA of 2.75

75-credit review
Passing scores on a Test of Basic Skills
Minimum cumulative GPA of 2.75
Submission of FC/MCEE Self-Assessment
Admission to the full degree/professional program (0833P)
TLPL 401 with grade of B- or better
Satisfactory completion of other Mathematics Gateway courses
Double Major with Mathematics on file

90-credit review:
Passing scores on a Test of Basic Skills
Minimum cumulative GPA of 2.75
Satisfactory Evaluation on FC/MCEE
TLPL 415 with a C- or better
Double Major with Mathematics on file

105-credit review:
Passing scores on a Test of Basic Skills
Minimum GPA of 2.75
Satisfactory Evaluation on FC/MCEE and PBA
Passing Scores on the Praxis II - see Advisor for Details.
Students must successfully complete the edTPA
TLPL 403 with a C- or better
TLPL 479D with a Satisfactory grade, “S”
Double Major with Mathematics on file