Secondary Mathematics/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	

I-Series

Normally double counted with Distributive Studies

Requirements: 6 credits	Course	Credits	Grade
I-Series (IS)		3	
I-Series (IS)		3	

(overlap permitted with Distributive Studies and/or I-series)

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

Major Requirements (Grade of C- or higher is required unless otherwise noted.)

UNIV 100	1	

Benchmark Requirements

Year 1 - Benchmark Requirement

AW with C- or higher	3	
MA with C- or higher		

Gateway Requirement

TLPL 401 with B- or higher	3	
9 credits of content course work with C- or higher		

Math (Education Track) Requirements	Credits	Grade
MATH 140 Calculus I	4	
MATH 141 Calculus II	4	
MATH 240 Linear Algebra (or MATH 341 Honors Sequence)	4	
MATH 241 Calculus III (or MATH 340 Honors Sequence)	4	
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*		
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		

Pre-Professional Education Requirements		
TLPL 101 Inquiry Teaching of STEM in Elementary School	1	
TLPL 102 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 Functions and Modeling	3	
TLPL 401 Project Based Instruction	3	
TLPL 414 Knowing and Learning	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 Secondary Math Ed (Fall Only)	1	
TLPL 478D Professional Seminar in Education: Mathematics (Spring Only)	1	
TLPL 489D Internship in Education: Mathematics (Spring Only)	12	
TLPL 488B Teaching Acad, Cult, & Ling Diverse Studs in Sec Ed (Spring Only)	2	

JLC 5/18/2021

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 Functions & Modeling	3
	Programming Requirement	3-4	SCHOLARSHIP IN PRACTICE (SP)	3
	TLPL 414 Knowing and Learning (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 Project Based Instruction (CC)	3	TLPL 415	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 Classroom Interactions	3	TLPL 488B	2
	TLPL 479D Field Experience	1		
	Elective	5		
	Total	*15*	*Total*	*15*
			Total Degree Credits:	122-124

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 I-series courses.**

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

JLC 11/19/2020