

## Secondary Science Education/Computer Science Double Major

<b>Name:</b>			
<b>General Education Requirements</b> (Grade of ( ) _ _ or higher is required)			
<b>Fundamental Studies</b>			
Requirements: __credits	Course	Credits	Grade
Academic Writing (AW)	ENGL 101		
Professional Writing (PW)			
Oral Comm. (OC)			
Math (MA)	MATH 140		
Analytic Reasoning (AR)	MATH 140		
<b>Distributive Studies</b>			
Requirements: __credits	Course	Credits	Grade
Natural Science Lab (NL)			
Natural Sciences (NS)			
History/Social Sciences (HS)	TLPL 414		
History/Social Sciences (HS)			
Humanities (HU)			
Humanities (HU)			
Scholarship in Practice (SP)	TLPL 101 & TLPL 102		
Scholarship in Practice (SP; non major)			
<b>I-Series</b>			
<b>Normally double counted with Distributive Studies</b>			
Requirements: __credits	Course	Credits	Grade
I-Series (IS)			
I-Series (IS)			
<b>Diversity</b> (overlap permitted with Distributive Studies and/or I-series)			
Requirements: __credits	Course	Credits	Grade
Understanding Plural Soc. (UP)			
Understanding Plural Soc. (UP) or Cultural Competency (CC)	TLPL 401		
<b>Experiential Learning- optional</b> (overlap permitted with other requirements/courses)			
Requirements: __credits	Course	Credits	Grade
			n/a
			n/a
Students must earn a minimum of 120 credits to complete a degree.			
<b>Requirements for Graduation:</b>			
<input type="checkbox"/> At least 30 credits must be earned at UMD			
<input type="checkbox"/> 15 of the final 30 credits must be earned at the 300-400 level			
<input type="checkbox"/> 12 upper level major credits must be earned at UMD			

<b>UID:</b>		
<b>Major Requirements</b> (Grade of C- or higher is required)		
Requirements	Credits	Grade
<b>Year 1 - Benchmark Requirement</b>		
AW with C- or higher		
MA with C- or higher		
MATH 140	4	
MATH 141	4	
CMSC 131	4	
CMSC 132	4	
<b>Year 2 - Benchmark Requirement</b>		
CMSC 216	4	
CMSC 250	4	
CMSC 330	3	
CMSC 351	3	
MATH 240 or 241	3	
STAT 4XX	3	
<b>Gateway Requirements</b>		
TLPL 401 with B- or higher	3	
<b>Computer Science Major Requirements</b>		
<i>Select 5 courses from at least 3 of the following areas with no more than 3 courses in a given area</i>		
<b>Area 1: Systems</b>		
CMSC 411	3	
CMSC 412	4	
CMSC 414	3	
CMSC 417	3	
<b>Area 2: Information Processing</b>		
CMSC 420	3	
CMSC 421	3	
CMSC 422	3	
CMSC 423	3	
CMSC 424	3	
CMSC 426	3	
CMSC 427	3	
CMSC 470	3	
<b>Area 3: Software Engineering and Programming Languages</b>		
CMSC 430	3	
CMSC 433	3	
CMSC 434	3	
CMSC 435	3	
CMSC 436	3	
<b>Area 4: Theory</b>		
CMSC 451	3	
CMSC 452	3	
CMSC 456	3	
CMSC 457	3	
<b>Area 5: Numerical Analysis</b>		
CMSC 460 or CMSC 466	3	

<b>Upper Level Elective Courses (Must pass with a grade of C- or higher)</b>		
Select 6 credits from CMSC 300- or 400-level courses (not eligible CMSC330 & CMSC351). Students should consult with CMSC Advising.		
<b>Major Supporting Sequence (12 credits)</b>		
EDHD 426 Cognitive and Motivational Literacy Content	3	
TLPL 415 Perspectives in Science*	3	
TLPL 414 Knowing and Learning	3	
TLPL 403 Learning and Teaching in Math	3	
<b>Pre-Professional Education Requirements</b>		
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	
BSCI 348T Research Methods* (Satisfied in TLPL 415, formal change in process)	3	--
TLPL 401 Project Based Instruction	3	
TLPL 415 Perspectives in Science*	3	
TLPL 414 Knowing and Learning	3	
<b>Professional Education Requirements</b>		
TLPL 403 Learning and Teaching in Math (Fall Only)	3	
TLPL 479D Field Experiences in Math Education (Fall Only)	1	
TLPL 478D Student Teaching Seminar in Sec Math (Spring Only)	1	
TLPL 489D Student Teaching (Spring Only)	12	
TLPL 488B Teaching Acad, Cult, & Ling Diverse Studs in Sec Ed	2	

## Science Education/Computer Science Four Year Academic Plan

Year 1	Fall	Cr.	Spring	Cr.
Benchmark 1 AW with C- or higher MA with C- or higher MATH 141 CMSC 131 CMSC 132	CMSC 131	4	CMSC 132	4
	MATH 140 (MA/AR)	4	MATH 141	4
	ENGL 101 (AW)	3	GENED-NL*	4
	GENED-OC	3	GENED-HS*	3
	CMSC 100	1	TLPL 102 (SP in combination with TLPL 101)	2
	TLPL 101	1		
	UNIV 100	1		
	<i>Total</i>	17	<i>Total</i>	17
Year 2	Fall	Cr.	Spring	Cr.
Benchmark 2 <i>Test of Basic Skills</i>	TLPL 414 (HS)	3	CMSC 330	3
	CMSC 216	4	CMSC 351	3
	CMSC 250	4	MATH 240	4
	GENED-HU*	3	GENED-NS	3
	Elective	1	GENED-HU	3
		<i>Total</i>	15	<i>Total</i>
Year 3	Fall	Cr.	Spring	Cr.
Gateway Requirements TLPL 401 with B- or higher  <i>Apply to the COE by Dec. 1st</i> Cumulative GPA of 2.75	TLPL 401	3	EDHD 426	3
	CMSC 4xx	3	TLPL 415	3
	CMSC 4xx	3	CMSC 4xx	3
	STAT 400	3	CMSC 4xx	3
	GENED-SP (non-major)	3	ENGL 393 (PW)	3
	<i>Total</i>	15	<i>Total</i>	15
Year 4	Fall	Cr.	Spring	Cr.
	<b>YEARLONG INTERNSHIP</b>			
	CMSC xxx	3	TLPL 478D	1
	CMSC 4xx	3	TLPL 489D	12
	CMSC 4xx	3	TLPL 488B	2
	TLPL 403	3		
	TLPL 479D	1		
	GenEd*	3		
	<i>Total</i>	16	<i>Total</i>	15
<b>Total Degree Credits: 126</b>				

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.

\* All students must complete two Distributive Studies courses that are approved for I-series courses. Students must complete Understanding Plural Society and Cultural Competence courses that may also fulfill a Distributive Studies category.

Students must also meet with their Academic Advisor in CMNS to discuss the CMSC course requirements.

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