,	ce - Mathematics, BS with Concentration in Applied Matematic talog Year: 2019 - 2020		6	ades
	-			
Mason Core Requirements: 27 credits	Course Information	Credits	Earned	Needeo
Written Communication:	ENGH 101 (100)	3		
Oral Communication:		3		
*Quantitative Reasoning	*Satisfied by Major Requirements			
*Information Technology	*Satisfied by Major Requirements (CS 112)			
Arts		3		
Global Understanding		3		
Literature		3		
*Natural Science	*Satisfied by Major Requirements			
Social & Behavioral Sciences		3		
Western Civilization/World History		3		
Written Communication:	ENGH 302	3		
Synthesis/Capstone		3		
Major Requirements (63 - 69 credits in ma	ajor with Concentration in Applied Mathematics) A maximum	of 6 credit	s of grade	es belov
2.00 in coursew	ork designated MATH or STAT may be applied toward the majo	r		
MATH 113	Analytic Geometry and Calculus I	4		
MATH 114	Analytic Geometry and Calculus II	4		
MATH 203	Linear Algebra	3		
MATH 213	Analytic Geometry and Calculus III or	2		I
or MATH 215	Analytic Geometry and Calculus III (Honors)	3		
MATH 214	Elementary Differential Equations or	_		
or MATH 216	Theory of Differential Equations	3		
MATH 290	Introduction to Advanced Mathematics	3		
MATH 322	Advanced Linear Algebra	3		
CS 112	Introduction to Computer Programming	4		
	quence of a laboratory science from the following courses (8-9			
BIOL 213 and One from the following:	Cell Structure and Function AND BioDiversity, Foundations of			
BIOL 300, 308, or 311	Ecology & Evolution, OR General Genetics			
CHEM 211/213 & CHEM 212/214	General Chemistry I & II with Labs			
GEOL 101 & GEOL 102	Introductory Geology I & II			
PHYS 160/161 or 260/261	University Physics I & II with Labs		I	
	Applied Mathematics (28 - 33 credits)			r
MATH 125	Discrete Mathematics I (Mason Core)	3		
MATH 315	Advanced Calculus I	3		
MATH 351	Probability	3		
MATH 413	Modern Applied Mathematics I	3		
MATH 414	Modern Applied Mathematics II	3		
MATH 446	Numerical Analysis I	3		
Select 6 additional credits of MATH courses	numbered above 300	-		r
Additional Math above 300 Course #1:		1	ļ	ļ
Additional Math above 300 Course #2:		1		
	ce credits from one of the following three options (4-9 credits):		
A second sequence from the choices under				
6 credits from more advanced courses in bi	ology, chemistry, geology, or physics 2			
The 4-credit option of PHYS 262 and PHYS 2	263			
	Degree Notes			
Approx. 24 - 30 remaining credits may be	completed with elective courses to bring the degree total to 120) with 45 o	of these c	redits at
	el. All graduating seniors are required to have an exit interview			
Advisor Notes:				

B.S. Mathematics

2019 - 2020

FALL YEAR 1	CREDITS	SPRING YEAR 1	CREDITS	NOTES	
MATH 113	4	MATH 114	4	*S.B.S. = Social and	
Core (Written)	3	MATH 125	3	Behavioral Science	
Core (Oral)	3	Core (W.C.)	3	*W.C. = Western Civ.	
Core (S.B.S.)	3	SCI 1a	4	*G.U. = Global	
Core (Arts)	3	Core (G.U.)	3	Understanding	
UNIV 100	1			*SCI =First of two year-	
Total:	17 credits	Total:	17 credits	long sequences**	
FALL YEAR 2	CREDITS	SPRING YEAR 2	CREDITS	NOTES	
MATH 213 or 215	3	MATH 214 or 216	3	*Some Literature	
MATH 203	3	MATH 290	3	courses have a	
C.S. 112	4	Core (Lit)	3	required pre-requisite	
SCI 1b	4	SCI 2a	4	of 45 completed	
IT Ethics	1	General Elective	3	credits.	
Total:	15 credits	Total:	16 credits		
FALL YEAR 3	CREDITS	SPRING YEAR 3	CREDITS	NOTES	
MATH 322	3	MATH 351	3	*UL – Upper level	
MATH 315	3	MATH 446	3		
SCI 2b	4	General Elective	3		
ENGH 302	3	General Elective (UL)	3		
General Elective	3	General Elective (UL)	3		
Total:	16 credits	Total:	15 credits		
FALL YEAR 4	CREDITS	SPRING YEAR 4	CREDITS	NOTES	
MATH 413	3	MATH 414	3		
MATH 3xx	3	MATH 3xx	3		
General Elective	3	MATH 400 (Synthesis)	3		
General Elective (UL)	3	General Elective (UL)	3		
General Elective (UL)	3				
Total:	15 credits	Total:	12 credits		

*Students must earn 120 credits for graduation; 45 credits must be upper-level (courses 300+). **Approved science sequences are CHEM 211/213 and CHEM 212/214, GEOL 101 and GEOL 102, or PHYS 160/161 and PHYS 260/261. See catalog for more details.