College of Science - Mathematics, BS with Concentration in Mathematical Statistics				
Catalog Year: 2020-2021			Grades	
Mason Core Requirements: 27 credits	Course Information	Credits	Earned	Needed
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 (66 - 71 credits in major with Concentration in Mathematical Statistics) A maximum of 6 credits of grades below 2.00 in coursework designated MATH or STAT may be applied toward the major				
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	3		
or MATH 215	Analytic Geometry and Calculus III (Honors)			
MATH 214	Elementary Differential Equations or	3		
or MATH 216	Theory of Differential Equations			
MATH 300	Introduction to Advanced Mathematics	3		
MATH 322	Advanced Linear Algebra	3		
CS 112	Introduction to Computer Programming	4		
Science Requirement: Select a one-year sequence of a laboratory science from the following courses (8-9 credits):				
BIOL 213 and One from the following: BIOL 300, 308, or 311	Cell Structure and Function AND Biodiversity, Foundations of Ecology & Evolution, OR General Genetics	8-9		
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			
Mathematical Statistics (31 - 36 credits)				
MATH 125	Discrete Mathematics I	3		
MATH 315	Advanced Calculus I	3		
MATH 351	Probability	3		
MATH 352	Statistics	3		
MATH 453	Advanced Mathematical Statistics	3		
MATH 551	Regression and Time Series	3		
STAT 362	Introduction to Computer Statistical Packages	3		
Select one from the following (3 credits):				
STAT 260, 350 or 360	Intro to Statistical Practice I, Introductory Statistics I, Introduction to Statistical Practice II	3		
Select two from the following (6 credits):				
STAT 455, 460, 462, 463, 465, 472, 474	Experimental Design, Intro to Biostatistics, Applied Multivariate Statistics, Intro to Exploratory Data Analysis, Nonparametric Statistics, Intro to Statistical Learning, Intro to Survey Sampling	6		
Additional Science: Select additional science credits from one of the following three options (4-9 credits):				
A second sequence from the choices under "Science" above		4-9		
6 credits from more advanced courses in biology, chemistry, geology, or physics 2				
The 4-credit option of PHYS 262 and PHYS 263				
Degree Notes				
Approx. 22 - 27 credits may be completed with elective courses to bring the degree total to 120 with 45 of these credits at the 300/400 level. All graduating seniors are required to have an exit interview.				
Advisor Notes:				