APPLIED MATHEMATICS MAJOR

Requirements for a Major in Applied Mathematics

Bachelor of Science

Code	Title	Hours
Required Courses		
MATH 132	Calculus II	4
MATH 203	Multivariable Calculus	4
MATH 213	Elementary Linear Algebra	3
MATH 215	Mathematics Resources, Opportunities, and Career Seminar	1
MATH 220	Discrete Mathematics	3
MATH 307	Differential Equations: A Modeling Perspective	3
MATH 415	Mathematics Seminar	1
CSCI 111	Introduction to Computer Science	4
One APMA course numbered 400 or above		3
Cognate Sequence		
Must complete an approved cognate sequence of at least seven hours from a discipline in the natural, social, or computational sciences. Approved sequences include the following:		7
Biology Cognate (any seven hours from)		
BIOL 121	Foundations of Experimental Biology	
BIOL 123	Principles in Molecular Biology	
BIOL 340	Ecological Simulation	
BIOL 350	Biostatistics	
MATH 345	Mathematical Biology	
Chemistry Cognate		
CHEM 215	Principles of Chemistry	
CHEM 220	Basic Inorganic Chemistry	
or CHEM 230	Quantitative Chemical Analysis	
Computer Science Cognate		
CSCI 112	Data Structures	
CSCI 311	Algorithms	
Cybersecurity Cognate		
CSCI 112	Data Structures	
CSEC 353	Cryptography	
Economics Cognate		
ECON 201	Principles of Economics-Micro	
ECON 202	Principles of Economics-Macro	
ECON 312	Econometrics	
Environmental Studies Cognate		
EVST 105	Environmental Problem Solving I	
EVST 305	Environmental Problem Solving II	
Geology Cognate		
GEOL 101	Introduction to Geology and the Environment	
or GEOL 102	A Geologic History of Earth	
A 4 credit hour GEOL course numbered higher than 102		
Physics Cognate		
PHYS 151	Introductory Physics	
PHYS 152	Introductory Physics	
Electives		
Must complete five approved elective courses. These courses include any 3+ credit hour APMA or MATH course numbered above 200. One of BIOL 350, CSCI 311, or PHYS 250 may be counted as an elective.		15
Total Hours		**48**