MATHEMATICS MAJOR REQUIREMENTS: ADVISEMENT FORM
BACHELOR OF SCIENCE DEGREE

Name:
UMBC username or ID:

NOTE: A grade of C or better is required in courses to fulfill major requirements.

I Core Requirements

		Semester/Year	Grade
MATH 151	Calculus and Analytic Geometry I		
MATH 152	Calculus and Analytic Geometry II		
MATH 221	Introduction to Linear Algebra		
MATH 225	Introduction to Differential Equations		
MATH 251	Multivariable Calculus		
MATH 301	Introduction to Mathematical Analysis I		
MATH 302	Introduction to Mathematical Analysis II **OR**		
MATH 401	Mathematics Analysis		
CMSC 201	Computer Science I		
PHYS 121	Introductory Physics I		
PHYS 122	Introductory Physics II		

II Upper Level Mathematics/Statistics Electives

Courses must be numbered higher than MATH 302. MATH 380, MATH 432, STAT 350 and STAT 351 are not counted as upper level electives for the major. At least THREE of these courses must be at the 400 level.

		Semester/Year	Grade
1			
2			
3			
4			
5			
6			

Note: For ONE of the mathematical electives, a major may bundle together three or more credits from courses carrying one or two credits. These include: MATH 426, 427, 479, 480, 490, 496, 499 and STAT 432, 470, 490, 496 and 499.

III Supplementary Requirements

Students must take TWO courses from the following list:

BIOL 463	Theoretical and Quantitative Biology
CHEM 401	Chemical and Statistical Thermodynamics
CHEM 415	Statistical Mechanics and Theory of Rate Processes

CMPE 320	Probability Statistics and Random Processes
CMPE 323	Signal and System Theory
CMSC 203	Discrete Structures *(Must be taken before MATH 301 to be accepted)*
CMSC 341	Data Structures
CMSC 441	Algorithms
CMSC 442	Information and Coding Theory
CMSC 443	Cryptography
CMSC 451	Automata Theory and Formal Languages
CMSC 452	Logic for Computer Science
CMSC 453	Applied Combinatorics and Graph Theory
ECON 311	Intermediate Economic Analysis
ECON 374	Fundamentals of Financial Management
ECON 417	The Economics of Strategic Interaction
ECON 421	Introduction to Econometrics
EDUC 320	Teaching Mathematics in the Elementary School
EDUC 426	Teaching Mathematics in the Secondary School
ENCH 300	Chemical Processes and Thermodynamics
ENME 217	Engineering Thermodynamics
ENME 315	Intermediate Thermodynamics
ENME 342	Fluid Mechanics
ENME 410	Operations Research
MATH 432	History of Mathematics
PHIL 248	Introduction to Scientific Reasoning
PHIL 346	Deductive Systems
PHIL 372	Philosophy of Science
PHYS 224	Introductory Physics III
PHYS 303	Thermal and Statistical Physics
PHYS 321	Intermediate Mechanics
PHYS 407	Electromagnetic Theory
PHYS 424	Introduction to Quantum Mechanics
PHYS 440	Computations Physics