MATHEMATICS MAJOR REQUIREMENTS: ADVISEMENT FORM
BACHELOR OF ARTS DEGREE

Name:
UMBC username or ID:

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

I Core Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Semester/Year</th>
<th>Grade</th>
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<tbody>
<tr>
<td>MATH 151</td>
<td>Calculus and Analytic Geometry I</td>
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<td>MATH 152</td>
<td>Calculus and Analytic Geometry II</td>
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<td>MATH 221</td>
<td>Introduction to Linear Algebra</td>
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<td>MATH 225</td>
<td>Introduction to Differential Equations</td>
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<td>MATH 251</td>
<td>Multivariable Calculus</td>
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<td>MATH 301</td>
<td>Introduction to Mathematical Analysis I</td>
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<tr>
<td>CMSC 201</td>
<td>Computer Science I</td>
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II Upper Level Mathematics/Statistics Electives

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

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<tr>
<th>Semester/Year</th>
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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 THREE 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 121  Introductory Physics I
PHYS 122  Introductory Physics II
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