APPLIED MATHEMATICS
MAJOR: ECONOMICS OPTION (B.S.)

https://ceps.unh.edu/mathematics-statistics/program/bs/applied-mathematics-economics-option

Description
This degree program prepares students for employment and/or graduate study in a variety of fields and research specializations in which mathematics plays a critical role in the solution of important scientific and technological problems.

Graduation Requirements
In all courses used to satisfy the requirements for its major programs, the Department of Mathematics and Statistics requires that a student earn a grade of C- or better and have an overall grade-point average of at least 2.00 in these courses.

Requirements

Major Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 425</td>
<td>Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>MATH 426</td>
<td>Calculus II</td>
<td>4</td>
</tr>
<tr>
<td>MATH 445</td>
<td>Mathematics and Applications with MATLAB or IAM 550</td>
<td>4</td>
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<tr>
<td>MATH 527</td>
<td>Differential Equations with Linear Algebra 1</td>
<td>4</td>
</tr>
<tr>
<td>MATH 528</td>
<td>Multidimensional Calculus</td>
<td>4</td>
</tr>
<tr>
<td>MATH 531</td>
<td>Mathematical Proof</td>
<td>4</td>
</tr>
<tr>
<td>MATH 644</td>
<td>Statistics for Engineers and Scientists 2</td>
<td>4</td>
</tr>
<tr>
<td>MATH 645</td>
<td>Linear Algebra for Applications 1</td>
<td>4</td>
</tr>
<tr>
<td>MATH 753</td>
<td>Introduction to Numerical Methods I</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 407</td>
<td>General Physics I</td>
<td>4</td>
</tr>
</tbody>
</table>

Capstone - select one of the following:
- MATH 797 - Senior Seminar
- MATH 798 - Senior Project
- MATH 799 - Senior Thesis

Total Credits: 42-44

1 MATH 525 Linearity I may be substituted for: MATH 645.
MATH 525 & MATH 526, Linearity, may be substituted for: MATH 527, MATH 528, and MATH 645.

2 Applied Mathematics: Economics Option students take MATH 539 Introduction to Statistical Analysis.

Economics Option Requirements

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<thead>
<tr>
<th>Code</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>MATH 739</td>
<td>Applied Regression Analysis</td>
<td>4</td>
</tr>
<tr>
<td>MATH 755</td>
<td>Probability with Applications</td>
<td>4</td>
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</tbody>
</table>

Select One approved MATH elective at the 700-level, chosen in consultation with the major advisor:

- MATH 739 - Applied Regression Analysis
- MATH 755 - Probability with Applications
- MATH 753 - Introduction to Numerical Methods I
- MATH 755 - Probability with Applications
- ECON 726 - Introduction to Econometrics
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Total Credits: 16

Degree Plan

First Year
Fall
- MATH 425 - Calculus I
- MATH 426 - Calculus II
- MATH 445 - Mathematics and Applications with MATLAB
- ECON 401 - Principles of Economics (Macro)
- MATH 400 - Freshman Seminar

Credits: 17

Spring
- MATH 426 - Calculus II
- MATH 445 - Mathematics and Applications with MATLAB
- ECON 402 - Principles of Economics (Micro)
- ENGL 401 - First-Year Writing

Credits: 16

Second Year
Fall
- MATH 528 - Multidimensional Calculus
- MATH 531 - Mathematical Proof
- ECON 605 - Intermediate Microeconomic Analysis

Credits: 16

Spring
- MATH 527 - Differential Equations with Linear Algebra
- MATH 539 - Introduction to Statistical Analysis
- ECON 611 - Intermediate Macroeconomic Analysis
- Inquiry Course

Credits: 16

Third Year
Fall
- MATH 739 - Applied Regression Analysis
- MATH 645 - Linear Algebra for Applications
- ECON or DS Elective Course
- Discovery Course

Credits: 16

Spring
- 700-level MATH Elective Course
- ECON 726 - Introduction to Econometrics
- Writing Intensive Course
- Discovery Course

Credits: 16

Fourth Year
Fall
- MATH 753 - Introduction to Numerical Methods I
- MATH 755 - Probability with Applications
- Elective Course
## Applied Mathematics Major: Economics Option (B.S.)

<table>
<thead>
<tr>
<th>Course Type</th>
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</thead>
<tbody>
<tr>
<td>Elective Course</td>
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<tr>
<td>Spring</td>
<td></td>
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<tr>
<td>Capstone:</td>
<td>4</td>
</tr>
<tr>
<td>MATH 797 or MATH 798 or MATH 799</td>
<td>Senior Seminar or Senior Project or Senior Thesis</td>
</tr>
<tr>
<td>Discovery Course</td>
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<tr>
<td><strong>Credits</strong></td>
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<tr>
<td><strong>Total Credits</strong></td>
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