APPLIED MATHEMATICS (M.S.) (COMBINED B.S./M.S.)

Program Requirements

4 courses for 12 credits will be applied from the undergraduate program.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>AMAT 530</td>
<td>Scientific and Numerical Computing I</td>
<td>3</td>
</tr>
<tr>
<td>AMAT 532</td>
<td>Applied Linear Algebra</td>
<td>3</td>
</tr>
<tr>
<td>AMAT 534</td>
<td>Data-Driven Modeling and Computation</td>
<td>3</td>
</tr>
<tr>
<td>AMAT 536</td>
<td>Applied Probability and Stochastic Processes</td>
<td>3</td>
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**Core Courses**

**Elective Courses**

Complete 5 courses from the following: 15

AMAT 540  Scientific and Numerical Computing II
AMAT 542  Methods of Applied Mathematics
AMAT 544  Applied Differential Equations
AMAT 546  Mathematical Biology
AMAT 548  Nonlinear Dynamics
AMAT 649  Independent Study
AMAT 650  Seminar
CHEM 540  Advanced Physical Chemistry
CHEM 544  Chemical Thermodynamics and Electrochemistry
CSIT 531  Robotics
CSIT 574  Image Processing
EAES 530  Numerical Modeling of Earth Systems
EAES 575  Environmental Economics
MATH 521  Real Variables I
MATH 522  Real Variables II
MATH 525  Complex Variables I
MATH 526  Complex Variables II
MATH 562  General Relativity
STAT 532  Fundamentals of Statistics
STAT 534  Statistical Computing
STAT 536  Statistical Theory
STAT 537  Design and Analysis of Experiments
STAT 538  Regression Methods

**Culminating Experience**

Select one of the following options: 3

AMAT 696  Internship
AMAT 697  Capstone
AMAT 698  Master's Thesis

Submit the completed Thesis and one copy to the Graduate School. See Thesis Guidelines for details.

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<tr>
<td>AMAT 550</td>
<td>Mathematics of Investment and Risk Management</td>
</tr>
<tr>
<td>AMAT 552</td>
<td>Stochastic Calculus for Finance</td>
</tr>
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</table>

Total Credits 30