

# M.S. in Mathematical and Computational Finance

## Degree Requirements

The Master of Science in Mathematical and Computational Finance requires 33 credits: 27 credits in core courses, 3 credits in an approved elective, and 3 credits in a project course.

<b>Semester I</b>		<b>Term Credits</b>
FIN 641	Derivatives Markets	3
MATH 605	Stochastic Calculus	3
MATH 611	Numerical Methods for Computation	3
MATH 646	Time Series Analysis	3
<b>Term Credits</b>		<b>12</b>
<b>Semester II</b>		
MATH 604	Mathematical Finance	3
MATH 606	Term Structure Models	3
MATH 608	Partial Differential Equations for Finance	3
CS 666 or MATH 666	Simulation for Finance or Simulation for Finance	3
<b>Term Credits</b>		<b>12</b>
<b>Semester III</b>		
MATH 607	Credit Risk Models	3
Approved Elective		3
MATH 609	Projects in Mathematical and Computational Finance	3
<b>Term Credits</b>		<b>9</b>
<b>Total Credits</b>		<b>33</b>

For students having already successfully completed the equivalent of a course required for the program, more advanced courses can be substituted with departmental approval.

## Electives

EM 602	Management Science	3
FIN 624	Corporate Finance II	3
FIN 626	Financial Investment Institutions	3
FIN 650	Investment Analysis and Portfolio Theory	3
MATH 644	Regression Analysis Methods	3
MATH 647	Time Series Analysis II	3
MATH 662	Probability Distributions	3
MATH 665	Statistical Inference	3
MATH 691	Stochastic Processes with Applications	3
MATH 699	Design and Analysis of Experiments	3
MATH 712	Numerical Methods II	3

Electives must be selected with the approval of the Program Director/Advisor.