

## Financial Math

### >PROGRAM GOALS:

The Financial Mathematics Program provides technically trained professionals with an understanding of how to value financial derivatives and complex investments, and assess the associated risks. Graduates must have a rigorous training in mathematics, especially in the area of stochastic processes and probability, in statistics, and in computation, together with a founding in the institutional operation of financial markets. The Program also provides a focal point for Financial Mathematics activities such as research seminars and workshops.

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### >CURRICULUM

The two-year curriculum requires 6 core courses, 4 electives, and a private-industry internship (or project).

#### **Core**

ISE 711 Capital Investment Economic Analysis  
MA/ST 546 Probability and Stochastic Processes I  
ECG 590I Asset Pricing  
MA 547 Financial Mathematics  
ST 522 Statistical Theory II  
ECG/MA 790C Computational Methods in Econ. and Finance  
FIM/MA 548 Monte Carlo Methods Applied to Financial Math

#### **Sample Electives**

BUS 522 Portfolio and Capital Market Theory  
ECG/ST 751 Econometrics  
ISE 712 Bayesian Decision Analysis for Engineers and Managers  
MA/ST 747 Probability and Stochastic Processes II  
ST 810 Credit Risk in Financial Derivatives (currently special topics)  
FIM/MA 549 Financial Risk Analysis

#### **Internship**

Progress Energy  
Bank of America  
Wachovia  
BB&T  
SAS  
Credit Suisse  
Goldman Sachs

## > CONTACT INFORMATION

Please visit the Financial Math Graduate webpage, <http://www.math.ncsu.edu/finmath/>, for further details.

You may contact this department with program specific questions:

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