

MATHEMATICS FOR FINANCE

In the last two decades, financial markets and their impact on world economies have significantly increased their reliance on sophisticated mathematically based methods in assessing risk and implementing financial strategies.

These methods are rooted from the fields of probability, statistics and differential equations. The Mathematics for Finance Certificate provides students, with a strong mathematical background, the opportunity to gain the skills and knowledge to apply mathematics in solving problems arising in economics, finance and risk management.

Mathematics for Finance Certificate will:

- Teach students modern mathematical and computational skills motivated by applications in finance and economics.
- Expose the students to the mathematics of randomness with a rigorous but applied probability course.
- Prepare students for graduate programs in the field of Financial Mathematics.

Certificate Requirements

Code	Title	Credit Hours
12-13 credit hours are required:		
Required courses:		6
MATH 325	Probability	
MATH 435	Mathematics of Finance ¹	
Select one course from the following:		3-4
MATH 425	Mathematical Statistics	
STAT 305	Intro. to Data Science	
STAT 325	Applied Statistics I	
STAT 327	Statistical Computing	
STAT 430	Applied Regression Analysis	
Select one course from the following:		3
MATH 404	Dynamical Systems	
MATH 420	Stochastic Processes	
MATH 462	Mathematical Modeling	
MATH 472	Intro to Numerical Analysis	
STAT 430	Applied Regression Analysis	
STAT 460	Time Series Analysis	
Total Credit Hours		12-13

¹ MATH 435 cannot count toward the Mathematics major and the Mathematics for Finance Certificate.

NOTES REGARDING MATHEMATICS FOR FINANCE CERTIFICATE PROGRAM:

1. A minimum 2.5 cumulative GPA is required for admission to the program.
2. A minimum 3.0 GPA in the courses counting toward the certificate is required at the time of graduation and/or awarding of the certificate.
3. None of the courses applied to the certificate may be taken pass/fail.
4. No transfer coursework may be counted toward the program.

5. A maximum of 3 credits Independent Study may be counted toward the program and must be approved by Petition prior to completion the Independent Study.