

WWS Major and Undergraduate Certificate of Finance Requirements

""Courses that fulfill both are highlighted

BCF Certificate of Finance Requirements

Prerequisites

1. Mathematics
MAT201/202 (strongly advised) or MAT203/204 or MAT 175
2. Microeconomics
ECO 310: Microeconomic Theory: A Mathematical Approach (may be taken concurrently with ECO362 in Junior year)
3. Probability and Statistics
ECO 202: Statistics and Data Analysis for Economists, or
MAT 222: Introduction to Statistics, or
ORF 245: Fundamentals of Engineering Statistics, or
PSY 251: Quantitative Methods, or
SOC 301: Sociological Research Methods, or
POL 345: Quantitative Analysis and Politics, or
WWS 200: Statistics for Social Science, or
WWS 332: Quantitative Analysis for Public Policy, or
PHY 301: Statistical Mechanics and Thermodynamics and PHY 312: Advanced Laboratory
OR a score of 5 in AP Statistics

Core Courses

- **ECO 362: Financial Investment**
- **ECO 363: Corporate Finance and Financial Institutions**

Elective Courses (Three, at least one from **List 1** for ECO and ORF students at least 2 from List 1)

List 1: Financial Applications

ECO 315: Topics in Macroeconomics
ECO 342: Money and Banking
ECO 344: Macroeconomic Policy
ECO 353: International Monetary Economics
ECO 361: Financial Accounting
ECO 461: Entrepreneurship, Innovation, and Venture Capital
ECO 462: Portfolio Theory and Asset Management
ECO 463: International Financial Markets
ECO 464: Corporate Restructuring
ECO 465: Options, Futures, and Financial Derivatives
ECO 466: Fixed Income: Models and Applications
ECO 467: Institutional Finance: Trading and Markets
ECO 468: Behavioral Finance
ECO 469: Valuation and Security Analysis
ECO 491: Cases in Financial Risk Management
ECO 492: Asian Capital Markets
ECO 493: Financial Crisis

ECO 494: Chinese Financial and Monetary Systems
EGR 395: Venture Capital and Finance of Innovation
EGR 475: Building and Operating Complex and Regulated Ventures
EGR 491: High-Tech Entrepreneurship
ORF 435: Financial Risk Management
ORF 474: Special Topics in Operations Research and Financial Engineering
WWS 466: Financial History
WWS 524: Advanced Macroeconomics
WWS 582f: House of Debt: Understanding Macro & Financial Policy

List 2: General Methodology for Finance

APC 350: Introduction to Differential Equations
CEE 460: Risk Assessment and Management
COS 318: Operating Systems
COS 324: Introduction to Machine Learning
COS 333: Advanced Programming Techniques
COS 423: Theory of Algorithms
COS 424: Fundamentals of Machine Learning
COS 432: Information Security
COS 436: Human-Computer Interface Technology
COS 445: Economics and Computing
COS 461: Computer Networks
ECO 311: Macroeconomics: A Mathematical Approach
ECO 312: Econometrics: A Mathematical Approach
ECO 313: Econometric Applications
ECO 317: The Economics of Uncertainty
ECO 365: Introduction to Empirical Methodology in Finance
ECO 414: Introduction to Economic Dynamics
ECO 418: Strategy and Information
ECO 488: Applied Game Theory
MAE 305: Mathematics in Engineering I
MAE 306: Mathematics in Engineering II
MAT 325: Analysis I: Fourier Series and Partial Differential Equations
MAT 330: Complex Analysis with Applications
MAT 335: Analysis II: Complex Analysis
MAT 385: Probability Theory
MAT 486: Random Processes
ORF 307: Optimization
ORF 309: Probability and Stochastic Systems
ORF 311: Optimization under Uncertainty
ORF 335: Introduction to Financial Mathematics
ORF 350: Analysis of Big Data
ORF 363: Computing and Optimization for the Physical and Social Sciences
ORF 401: Electric Commerce
ORF 405: Regression and Applied Time Series
ORF 409: Introduction to Monte Carlo Simulation

ORF 455: Energy and Commodities Markets
WWS 340: Psychology of Decision Making

WWS Requirements

For details of the core requirements and electives by graduating class visit the [WWS website](#).

11/20/2018