

The Bendheim Center for FINANCE

Undergraduate Minor in Finance (UMF)

Sophomore Open House

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Application Opens - April 1, 2023



What is finance?

- How are financial securities such as stocks, bonds, currencies and derivatives priced and what information these prices carry
- How to construct and manage portfolios of financial and real assets
- How to manage risk
- How corporation or other businesses finance themselves
- How to decide whether to invest in a project
- Public policy including monetary policy, financial-market and banking regulation

The tools of finance

- Modern finance is eclectic
- Draws from many disciplines including economics, mathematics, operations research, engineering, computer science, psychology, politics, history and others

Multidisciplinary:
Combines methods
and courses
from multiple
departments

Flexible:
allows you to
major in any dept

Why should I do it?

Directly applicable
skills

Open to Every Major

Economics,
ORFE

Engineering,
Computer Science,
Physics,
Math, Biology,
etc.



Minor
in Finance

Architecture,
Art, Music,
Religion, History,
English, etc.

Public Affairs,
Politics, Psychology,
Sociology, etc.

Certificate in Finance Numbers: Past 10 Years

CLASSES	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
WOMEN	21	24	28	28	37	23	29	23	12	22
MEN	51	58	63	66	62	62	48	52	36	57
WOMEN(%)	32%	29%	30%	30%	37%	27%	38%	31%	25%	28%
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
SOCIAL SCIENCES	6	4	4	5	6	2	1	0	0	1
NATURAL SCIENCES	-	-	-	-	-	5	3	3	1	5
ECON	35	36	40	37	45	45	41	40	26	43
HUMANITIES	4	1	4	1	5	2	-	3	3	3
ORFE	13	24	24	27	30	16	18	21	12	15
ENGINEERING	8	11	12	18	9	12	12	7	5	9
WWS/SPIA	6	6	7	6	4	3	2	1	1	3
TOTAL UCF	72	82	91	94	99	85	79	75	48	79

Requirements for the Minor in Finance

- 3 Prerequisites
 - Probability and statistics
 - Mathematics
 - Microeconomics
- 2 core courses in finance
- 3 electives courses in finance
- Currently there is a separate independent work requirement for the finance certificate; which will be eliminated for the minor

Minimum grade requirement

Prerequisites:
Microeconomics
Statistics
Math

2 Core
+ 3 Electives:
Minimum C+ average

All students must earn a minimum of C+ [2.30] averaged out over the 2 core courses and the 3 elective courses

Prerequisites: Probability and Statistics

- Multiple ways to satisfy this requirement
 - ECO 202
 - ORF 245
 - SPI 200
 - POL 345
 - SOC 301
 - PSY 251
 - Or a 5 in AP Statistics (must be reflected on your PU transcript)
 - Or a more advanced course in statistics

Prerequisites: Microeconomics and Mathematics

- **Micro**

- ECO 300: Microeconomic Theory
- ECO 310: Microeconomic Theory: A Mathematical Approach

- **Math**

- MAT 175: Mathematics for Economics/Life Sciences
- or higher...for example, (MAT 201 & MAT 202) or (EGR 154 & EGR 156) or (MAT 203 & MAT 204)
- AP Math courses not eligible

Core Courses

ECO 362
Financial
Investments
Fall Term Only

ECO 363
Corporate Finance
and Financial
Institutions
Spring Term Only

3 Elective Courses

List 1 Electives

*Financial
Applications*

List 2 Electives

*General Methodology
for Finance*

*At least 2 of the 3 electives must be from List 1
Compete lists on the BCF website*

Course Substitution Approval for Electives

- Courses not listed may be taken as an elective if approved by DUS: submit the request by e-mail and explain how the course relates to your program of study in finance
- The two core courses must be completed at Princeton and cannot be substituted with another course
- Students are permitted to use course(s) completed abroad to fulfill a maximum of one of their three elective courses with DUS approval. Approval forms must be submitted online before travel takes place
- Not all courses are offered every year: check the course offerings calendar

Selection of electives is based upon:

- **Individual needs, preferences and schedule**
- **It is possible to follow a track with courses forming a coherent group**
 - Math Finance Track
 - Derivatives Pricing and Risk Management Track
 - Investment Management Track
 - Corporate Finance Track
 - Information Technologies for Finance Track
 - Behavioral Finance
 - Finance and Public Policy

Mathematical Finance Track

- Consider this track if you are interested in financial engineering or the design of financial securities that help manage risk
- You will study the mathematics of financial asset pricing
 - stochastic calculus
 - application of stochastic calculus to arbitrage and equilibrium in dynamic economies

Derivatives Pricing and Risk Management Track

- Consider this track if you are interested in risk management and financial engineering
- You will learn
 - how to price options, futures and other derivative securities
 - how to use these securities to manage risk

Investment Management Track

- Consider this track if you are interested in applying macroeconomic analysis and statistical forecasting techniques to portfolio management
- You will learn about
 - the design and functioning of securities markets
 - the behavior and determinants of the returns or profits on these securities
 - how to construct optimal portfolios of securities
 - how to manage these portfolios

Information Technologies for Finance Track

- Consider this track if you are interested in applying computer-based technologies to the financial and business world
- You will study
 - the design of efficient trading systems
 - the simulation of financial markets
 - machine learning tools

Corporate Finance Track

- Consider this track if you are interested in working for an investment bank or starting your own business
- You will learn
 - how to choose and finance investment projects
 - about financial restructuring - is there an optimal debt-equity ratio (capital structure)
 - merger and acquisition analysis
 - what determines dividend policy
 - management and regulation of banks/financial institutions

Behavioral Finance Track

- Consider this track if you are interested in how human psychology, including behavioral biases influence financial decision-making and ultimately asset prices
- You will learn
 - models of financial markets accounting for investor psychology
 - use these models of market inefficiency to develop investment strategies
 - understand how market inefficiency affects the real economy

Finance & Public Policy Track

- Consider this track if you are interested in the interaction between finance & policy, including public finance, responses to financial crisis, central banking and securities law
- You will learn
 - models of banking, credit and financial crises
 - apply these models and methods to study various markets
 - understand the role of central banks in shaping financial markets

- **Can I take ECO 300 or ECO 310 at the same time as ECO 362?**
 - Yes , you may take them at the same time in the fall of your junior year. However, admission is provisional until completion of all prerequisites including ECO 300 or ECO 310
- **Can courses double-count?**
 - As part of the transition from a certificate to a minor, more stringent requirements will be put in place to limit the double-counting of courses between a major and a minor. This will only apply to the core and elective courses, not the prerequisites.
 - More details will become available towards the end of the semester.

Please visit the Common Questions pages for more answers

<https://bcf.princeton.edu/academic-programs/undergraduate-certificate-in-finance/current-students/common-questions-ufc/>

How to Apply

Go to the BCF website

Electronic Application via SharePoint

Submission Deadline:
MAY 31 OF YOUR SOPHOMORE YEAR

Contact Us

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