



Department of Economics

Spring 2022

ECO 426: Financial Economics

(LEC, 3 credits)

Class Time: Tuesday Thursday 3:30PM - 4:50PM EST

Class Location: Clemens 322

Instructor

Dr. Monica Tran-Xuan

Email

monicaxu@buffalo.edu

Office Hours

Tue Thu 10:00AM—12:00PM EST, by appointments only

Location: Zoom (link available on UB Learns)

To sign up for office hour appointments, use <https://calendly.com/monicatranxuan/sp22>

(The best way to reach me is via email. Email subject: ECO 426– your name)

Teaching Assistant: Priyadarshini Chatterjee. Email: chatter2@buffalo.edu

Office Hours: Fri 11:00AM—1:00PM

Office Location: Zoom (link available on UB Learns)

Course Description

This course provides an overview of financial decision-making and the functions of financial markets. The course first focuses on financial decisions made by individuals and firms, then investigates the way these decisions are implemented through financial systems. The key concepts are resource allocation over time, evaluation of cash flow, risk management, project evaluation, and asset pricing models.

Learning Outcomes

Upon successful completion of this course, students are expected to

Learning outcomes	Assessment methods
1. Acquire the analytical tools and financial theory necessary for making good investment decisions.	Lecture, Problem set, Presentation, Exam
2. Demonstrate an ability to critically analyze and advance recommendations of contemporary financial challenges.	Lecture, Problem set, Presentation, Exam
3. Understand the paradigms by which financial securities are valued from the perspective of a portfolio manager.	Lecture, Problem set, Presentation, Exam
4. Effectively communicate financial terms and their applications.	Lecture, Problem set, Presentation, Exam

Prerequisites

ECO 405 and ECO 407.

Students are also expected to know calculus (derivatives, unconstrained optimization, etc.) or equivalents. A good knowledge of probability theory will be helpful, and we will review some of that. Basic data management skill will be needed in some of the assignments.

Textbook

The required textbook for this course is

- *Essentials of Investments* by Zvi Bodie and Alex Kane and Alan Marcus (11th edition)

This textbook should be available on the UB bookstore.

In addition, students are expected to keep up with the current economic and financial events from sources like the Wall Street Journal, Financial Times, and the Economist.

Course Requirements

There will be 5 problem sets, one project, one midterm, and one final exam. Students are responsible for materials covered in lectures.

Problem sets are submitted via UB Learns and due at the beginning of the class on the due date. Late assignments will receive half credits except for special circumstances with official documents (doctor's notes, etc.). Some problem sets might involve the use of Excel, or other software useful for data analysis of your choosing. Data will be provided, and students will be asked to carry some analysis based on that data. Students are highly encouraged to work together on problem sets, but each student must submit individual solutions and acknowledge whom the students work with on the first page. The solutions can be electronic (using LaTeX and its applications such as Overleaf, Lyx, etc.) or handwritten. Tentative problem set schedule:

Problem set	Deadline
Problem set 1	February 17
Problem set 2	March 3
Problem set 3	March 15
Problem set 4	April 21
Problem set 5	May 5

Project: In addition to the normal problem sets, there is also one project on optimal portfolio construction that is due at the end of the semester. The project is an extension of class concepts that students work on in problem sets, but is also graded on the visual presentation. The project is divided into two parts. Part 1 involves financial data collection and basic analysis. Part 2 is constructing the optimal portfolio. More details are available on the project assignment sheets. Tentative project schedule:

Project	Deadline
Part 1	April 7
Part 2	May 12

Exams: All exams are conducted in person, closed books, closed notes, and with a time limit. The midterm covers the first half of the class, while the final covers all course materials. There is no make-up exam for the midterm. If you miss the midterm, I will use your grade in the final exam. Make-up final exams will only be scheduled under documented special circumstances (illness, family emergency, athletic conflicts, etc.). Students with final exam conflicts must follow the university guidelines at <https://registrar.buffalo.edu/schedules/finalexams.php>. Exam schedule is

Exam	Date	Time	Location
Midterm	March 17	3:30PM - 4:50PM	Clemens 322
Final	May 19	3:30PM – 6:30PM	Clemens 322

Grading Policy

The final total score for the course will be determined as follows:

Problem sets	20%
Project	20%
Midterm	25%
Final	35%

I will follow this grading rubric in determining your final letter grade:

Letter grade	Final total score
A	93-100
A-	87-92
B+	80-86
B	75-79
B-	70-74

C+	65-69
C	60-64
C-	55-59
D+	50-54
D	45-49
F	00-44

Students have a responsibility to participate in the course evaluation process. For the “Incomplete” grade, please refer to the grading procedure at <http://undergrad-catalog.buffalo.edu/policies/grading/explanation.shtml>

Academic Content

This is the list of topics and relevant reading materials that may be covered in this course.

Part One: Basic Investment Concepts

1. Investments: Background and Issues
2. Asset Classes and Financial Instruments
3. Securities Markets

Part Two: Portfolio Theory and Asset Pricing

5. Risk, Return, and the Historical Record
6. Efficient Diversification
7. Capital Asset Pricing and Arbitrage Pricing Theory
8. The Efficient Markets Hypothesis

Part Three: Debt Securities

10. Bond Pricing
11. Managing Bond Portfolios

Part Four: Securities Analysis

15. Options Markets
16. Option Valuation
17. Futures Market

Course Website

All relevant course materials and assignments will be posted on UB Learns (<https://ublearns.buffalo.edu/>). Please check the website regularly.

Please do not share course materials to others who do not officially register with the course without the instructor’s approval. If you receive such request, please forward it to the instructor.

Class Policies

Students are encouraged to actively participate in class discussions and respect the instructor, the TA, and other students. There should be no eating or drinking during class times. Masks must be worn in the classroom. Any student found disturbing the academic environment in the class would be asked to leave. Reentry into the class will be permitted at the discretion of the instructor.

Academic Integrity

Academic integrity is critical to the learning process. It is your responsibility as a student to complete your work in an honest fashion, upholding the expectations your individual instructors have for you in this regard. The goal is to ensure that you learn the content in your courses in accordance with UB's academic integrity principles, regardless of whether instruction is in-person or remote. Please refer to <https://catalog.buffalo.edu/policies/integrity.html> for more details.

Students are expected to have appropriate citation of sources used, acknowledgment of collaboration and help in your work, and no communication with others during exams. Failure to abide by such policies will result in a failing grade of the course.

Proper citation is one of the most important aspects of academic writings, and it can be challenging for students who are new to this. UB Library provides useful resources at <https://research.lib.buffalo.edu/citingsources/home>.

Thank you for upholding your own personal integrity and ensuring UB's tradition of academic excellence.

Health and Safety Guidelines

While your attendance and participation are essential components of this course, it is critical that you follow UB's public health guidelines available at <https://www.buffalo.edu/coronavirus/latest-update.html>. Masks must be worn in the classroom at all time. Any student exhibiting COVID-19 symptoms should not come to campus to participate in coursework. If you need to miss assignment deadlines due to illness, you must notify the instructor by email as soon as possible and no later than 24-hours after. At that time, you are also expected to make arrangements to complete missed work. In addition, all students must complete the daily mandatory health check at <https://buffalo.edu/health-check>.

Accessibility Resources

If you have any disability which requires reasonable accommodations to enable you to participate in this course, please contact the Office of Accessibility Resources in 60 Capen Hall, 716-645-2608 and also the instructor of this course during the first week of class. The office will provide you with information and review appropriate arrangements for reasonable accommodations, which can be found at <http://www.buffalo.edu/studentlife/who-we-are/departments/accessibility.html>.

Critical Campus Resources

Sexual Violence

UB is committed to providing a safe learning environment free of all forms of discrimination and sexual harassment, including sexual assault, domestic and dating violence and stalking. If you have experienced gender-based violence (intimate partner violence, attempted or completed sexual assault, harassment, coercion, stalking, etc.), UB has resources to help. This includes academic accommodations, health and counseling services, housing accommodations, helping with legal protective orders, and assistance with reporting the incident to police or other UB officials if you so choose. Please contact UB's Title IX Coordinator at 716-645-2266 for more information. For confidential assistance, you may also contact a Crisis Services Campus Advocate at 716-796-4399.

Mental Health

As a student you may experience a range of issues that can cause barriers to learning or reduce your ability to participate in daily activities. These might include strained relationships, anxiety, high levels of stress, alcohol/drug problems, feeling down, health concerns, or unwanted sexual experiences. Counseling, Health Services, and Health Promotion are here to help with these or other issues you may experience. You can learn more about these programs and services by contacting:

Counseling Services:

120 Richmond Quad (North Campus), 716-645-2720
202 Michael Hall (South Campus), 716-829-5800

Health Services:

Michael Hall (South Campus), 716-829-3316

Health Promotion:

114 Student Union (North Campus), 716-645-2837

UB Curriculum Capstone

If you are completing this course as part of your UB Curriculum requirements, please select an 'artifact' from this course that is representative of your learning and upload it to your UBPortfolio account. Templates have been created for this purpose. Artifacts include homework assignments, exams, research papers, projects, lab reports, presentations, and other course materials. Your final UB Curriculum requirement, UBC 399: UB Curriculum Capstone, will require you to submit these 'artifacts' as you process and reflect on your achievement and growth through the UB Curriculum. For more information, see the UB Curriculum Capstone website: <https://www.buffalo.edu/ubcurriculum/capstone.html>

Tentative Course Schedule

Week	Topic	Chapter	Assignment Due	Learning Outcomes
1	Intro to Investments, Asset Classes	1,2		1,2,3,4
2	Asset Classes, Securities Markets	2,3		1,2,3,4
3	Math Review, Risk aversion		Problem set 1	1,2,3,4
4	Portfolio Theory	5,6		1,2,3,4
5	Portfolio Theory	6, 7	Problem set 2	1,2,3,4
6	Single Index and Factor Models	7		1,2,3,4
7	Review & Midterm Exam	1-3, 5-7	Problem set 3	1,2,3,4
8	Spring Break			
9	CAPM, Efficient Markets Hypothesis	7, 8		1,2,3,4
10	Bond Pricing	10	Project - part 1	1,2,3,4
11	Bond Portfolio	11		1,2,3,4
12	Options Markets	15	Problem set 4	1,2,3,4
13	Options Valuation	16		1,2,3,4
14	Options Valuation	16	Problem set 5	1,2,3,4
15	Futures & Review	17	Project - part 2	1,2,3,4
Final	Final Exam	1-3, 5-8, 10-11, 15-17		1,2,3,4