

**UNIVERSITY OF TORONTO
DEPARTMENT OF ECONOMICS
St. GEORGE CAMPUS**

**ECO358 – Financial Economics I (Asset Pricing)
Course Outline – Summer 2023**

Instructor:	Dr. Ata Mazaheri
Office Hours:	By appointment
E-mail Address:	<u>mazaheri@chass.utoronto.ca</u>
Web Page:	<u>https://q.utoronto.ca</u> (Quercus)

Course Delivery

Please refer to the announcement of Quercus.

Course Description:

This course provides you with the analytical tools needed to understand the issue of security valuation and hence to make the appropriate investment decisions. It is an introductory course in the portfolio theory and asset pricing which form the foundation of investment. The main topics covered in this course include valuation in the world with certainty, individual, risk and return, arbitrage, and market equilibrium. More specifically, we cover the basics of valuation applied to bonds and stocks, the mean-variance analysis, the Capital Asset Pricing Model (CAPM), factor portfolios and Arbitrage Pricing Theory (APT), as well as Arrow-Debreu state prices followed by market efficiency as well as option pricing.

The course challenges you on both theoretical as well as the empirical fronts. While on the theoretical front the course goes rather deep in the valuation methods, at the same time the empirical component of the course requires you to apply the methods learned to real world security analysis.

Course Objectives:

By the end of this course you are expected to learn:

- The role of the most fundamental markets and institutions
- Tools commonly used in investment analysis
- Pricing default-free fixed-income securities as well as the term structure of interest rate.
- Theories of risk-factor pricing, such as the Capital Asset Pricing Model (CAPM)
- The alternatives to CAPM such as State Prices and the Arbitrage Pricing Theory (APT)
- Basics of derivatives markets, as well as the pricing of derivative instruments and their use as hedging tools.
- How to apply the valuation methods to virtual portfolio

Textbook:

There is no required textbook. However, the following is recommended.

Bodie, Kane, Marcus, Perrakis, Ryan, 2019, *Investments*, 9th Edition, McGraw-Hill. ISBN: 0070965455 [BKM]

I will be posting my notes incrementally. Part of my notes is based on BKM but most of it is not. You are recommended to purchase the book more so at the start of the course where you have to familiarize with the institutional issues and when my notes and the book overlap. I will assign parts of the book for your reading as well. I will leave a copy with the short-term desk for you to borrow in case you do not want to purchase the book.

Evaluation:

	Weight	Time (Tentative)	Location
Midterm	30%	TBA	TBA
Optional in Class Quizzes	20%	4-5PM	In Class
Final Exam	50%	TBA	TBA
Total	100%		

Notes:

- **Midterm:** Material covered from **Lecture-1** till the end of **Lecture-6**.
- **Final Exam:** Inclusive of all the material learned in the lecture.
- **The Quiz mark will be the average of the mark for all Quizzes minus the lowest two.**
- **If your mark on the final exam is higher than the Quizzes, your final exam will be worth 70%.**

There will be no makeup test. If you miss the midterm **for any reason**, the final exam will be re-adjusted for the total of 80%.

Aids Allowed in Tests and Final Exam

- Midterm as well as the final exam are closed book. However, you are permitted to bring a non-programmable calculator and a **hand-written** “crib sheet” to each of the assessments. For the midterm and the final, you may use **one side** of one 8½” × 11” page with “HANDWRITTEN” notes and/or formulae.

Policy on Re-Grading

If, after looking over your term tests, and reviewing your answers and comparing it with the posted solutions, you feel that there has been a material error or omission in the marking of your term test, you must observe the following procedures:

1. Create a typed note containing the following: (i) Your names, (ii) Your Student Number, (iii) Your e-mail address, so I can communicate with you (iv) The criterion (criteria) against which you believe you have been graded incorrectly, or an explanation of why the marker has overlooked or misunderstood your answer's merits, or has re-acted too severely to your answer's short-comings. **Hand written submissions will not be considered.**
2. Deliver your re-grading requests to me in class one week after the test is handed back. **No re-grading requests will be considered either before or after that time.**
3. Re-grading will be based only on what you submit in writing, not what you might say in person. Marks are not the subject of "discussion" or negotiation.
4. Your test will be re-considered, based on your written comments and clarifications. Re-grading means that your answer(s) will be re-evaluated and a new grade may be assigned. This means that it is possible to lose marks as well as to gain marks through re-grading. Therefore, please do not submit your materials for re-grading unless you are confident that a grading error occurred. Keep in mind that the re-grade is meant for mistakes in grading. It is not a forum for arguing about the criteria used, or the points allocated to the criteria.
5. Addition Errors or minor petition: If there is an error in totaling up your mark or that you have a minor petition on a single part of the Test (say only part (a) of Q2), then you may write this on the cover of your Test paper material and hand it to me on the due date. No written petition is required.

Statement on Equity, Diversity, and Inclusion (EDI)

The University of Toronto is committed to equity, human rights and respect for diversity. All members of the learning environment in this course should strive to create an atmosphere of mutual respect where all members of our community can express themselves, engage with each other, and respect one another's differences. U of T does not condone discrimination or harassment against any persons or communities.

If you have questions or concerns on issues related to EDI, please contact the Equity, Diversity and Inclusion Office: <https://www.utoronto.ca/edio/>

Statement on AI

The knowing use of generative artificial intelligence tools, including ChatGPT and other AI writing and coding assistants, for the completion of, or to support the completion of, an examination, term test, assignment, or any other form of academic assessment, may be considered an academic offense in this course.

Activating your UTORid and Password

If you need information on how to activate your UTORid and set your password for the first time, please go to www.utorid.utoronto.ca. Under the "First Time Users" area, click on "activate your UTORid" (if you are new to the university) or "create your UTORid" (if you are a returning student), then follow the instructions. New students who use the link to "activate your UTORid" will find reference to a "Secret Activation Key". If you need help visit the Scarborough campus computing help desk (B-487) to obtain help. **The course instructor will not be able to help you with this.**

Email Communication with the Course Instructor

At times, the course Instructor may decide to send out important course information by email. To that end, all UofT students are required to have a valid UofT email address. You are responsible for ensuring that your UofT email address is set up AND properly entered in the ROSI system. You can do that by using the following instructions:

To submit the information to activate your UTORid and password (see above), you will need to click the “Validate” button. Follow the instructions on the subsequent screens to receive your utoronto.ca address. Once you have your UofT email address, go to the ROSI system (www.rosi.utoronto.ca), log in and update the system with your new UofT email address.

You can **check your UofT email** account from

1. The UofT home page <http://www.utoronto.ca>: From the Quick Links menu on the top right, choose “my.utoronto.ca”. Enter your UTORid and password, and when the Welcome page opens, click “WEBMAIL”.
2. Email software installed on your computer, for example Microsoft Outlook or Mozilla Thunderbird. Visit the Help Desk at the Information Commons or call 416-978-HELP for help with the set up.

Forwarding your utoronto.ca email to a Hotmail, Gmail, Yahoo or other type of email account is not advisable. In some cases, messages from utoronto.ca addresses sent to Hotmail, Gmail or Yahoo accounts are filtered as junk mail, which means that emails from your course instructor may end up in your spam or junk mail folder.

You are responsible for:

1. Ensuring you have a valid UofT email address that is properly entered in the ROSI system
2. Checking your UofT email account on a regular basis.

Preparation

- Lecture notes are posted several days ahead of the lecture. It is important to read them before attending each lecture. It is necessary to try the problem sets after each lecture before attending the next lecture. Solution to those problem sets are posted as well but it is essential that you do the question on your own before consulting the solutions!
- Practice tests will be posted on the website and will be discussed and expanded during the review sessions. Make sure you spent time on those questions before each assessment.

Course Timetable

	Topic	Text Reading
Lecture-1	Introduction – Overview of Financial Markets	BKM: 2
Lecture-2	Valuation: World without Uncertainty Bond Valuation-I	Course-Pack Topic-1
Lecture-3	The Term Structure of Interest Rates Stock Valuation	Course-Pack Topic-1
Lecture-4	Risk, Expected Utility Theory, Basic Tools of Modern Portfolio Analysis	Course-Pack Topic-2
	Test-1	
Lecture-5	Mean Variance Analysis Portfolio Selection	Course-Pack Topic-2
Lecture-6	Capital Asset Pricing Model	Course-Pack Topic-3
Lecture-7	Factor Models and Arbitrage Pricing Theory (APT)	Course-Pack Topic-3
Lecture-8	Market Efficiency	Course-Pack Topic-3
	Test-2	
Lecture-9	State Prices	Course-Pack Topic-4
Lecture-10	Options I	Course-Pack Topic-5
Lecture-11	Options II	Course-Pack Topic-5