

# FIN3702: Investment Analysis and Portfolio Management

Emirhan İlhan

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E-mail: [ilhan@nus.edu.sg](mailto:ilhan@nus.edu.sg)

Office Hours: By Appointment

Office: BIZ1 #07-77B

Group	Time	Venue
S01	Th 12 noon - 3pm	BIZ2 0509
S02	Th 3pm - 6pm	BIZ1 0302

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## 1 Course Description

The objective of this course is to develop key concepts in investment theory from the perspective of a portfolio manager, and to apply such concepts using real financial data. Topics to be covered include portfolio optimization and asset pricing theories, as well as their applications to problems in modern financial practice. This course also explores the application of various financial instruments in investment management and introduces the basic techniques of portfolio performance evaluation.

The course content consists of a mix of descriptive material, theoretical models, and model application. We shall cover fundamental analysis and security valuation on stocks, bonds, options and futures, as well as modern portfolio management. On completion, students should be conversant in investment management in preparation for careers in financial analysis and financial planning, investment banking, and corporate finance.

This class, on the other hand, is not about the “fine art” of stock picking. It will not provide you with foolproof ways of making money in the stock market. The detailed analysis of individual firms and their balance sheets is out of the scope of this course.

## 2 Prerequisites

- FIN2704
- Basic understanding of calculus and linear algebra
- Basic understanding of Excel and/or other programming languages such as R and Python
- A financial calculator

### 3 Course Materials

The reference textbooks for the course will be [Bodie, Kane and Marcus \(2021\)](#) (henceforth, BKM). A somewhat [Bodie, Kane and Marcus \(2022\)](#). All other course materials will be posted on Canvas and therefore, you are expected to regularly check any updates and files on Canvas.

### 4 Assessment

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Class Participation	10%
Problem Sets	(4 × 5%)
Midterm Test	25%
Final Exam	40%
Ethics	5%
<b>Total</b>	<b>100%</b>

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#### 4.1 Class Participation

A phrase commonly attributed to [Sagan \(2011\)](#) is “There is no such thing as a stupid question.”

There is. However, it is especially important to ask those stupid questions because in many cases, several people may not know the answer, but are too afraid to ask the question. Your active participation in the class will not only be beneficial for you, but also a service to your peers in the class room. I also expect students to prepare for each lecture through self-study by recapping previous lectures and reading the reference material.

Finally, the use of laptops is allowed in the class. Please refrain from using laptops for anything but activities related to the class. I know the temptation to look at your phones when notifications appear, but given that the use of a phone is rarely useful for activities related to the class, it is forbidden to use phones during the lecture. You can eat/drink in the class, but please use common sense to not distract anyone else or disrupt the flow of the class when doing so.

#### 4.2 Problem Sets

Throughout the course, there will be four problem sets on Canvas with a one week deadline from the time they are published. Each problem set will primarily consist of numerical problems as well as multiple choice questions.<sup>1</sup> These problem sets serve the purpose of ensuring that you keep up with the materials covered in the class as well as preparing you for the midterm test as well as the final exam. These are assignments to be completed individually and you will only have once chance to submit your answers.

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<sup>1</sup>If you do not submit your answers by this deadline, there will not be an opportunity for a make-up.

### 4.3 Midterm Test

A closed-book midterm test will be held in Week 8 (the final date subject to change). You can expect to see questions from topics covered up until that point in the lectures. You are allowed to bring two calculators and a two-sided A4-sized cheat sheet to aid you.

### 4.4 Final Exam

The final exam is tentatively scheduled to take place in the examination week on May 5, 2023 at 2:30pm. You can expect to see questions from all topics covered in the lectures, but especially from those topics that we covered after the midterm test. You are allowed to bring two calculators and a two-sided A4-sized cheat sheet to aid you.

### 4.5 Ethics

There will be online materials for study of Ethics and a quiz on the materials. This is in compliance to NUS being a CFA affiliated institution.

## 5 Course Structure

### 5.1 Course Content

Throughout the lectures, we will cover the following topics (subject of change).

<b>Topic</b>	<b>Chapters (BKM)</b>
Asset Classes, Risk, and Return	1, 2, 3, 4, 5
Portfolio Theory	6, 7
Equilibrium Asset Pricing Models	8, 9, 10
Market Efficiency, Anomalies, and Behavioral Biases	11, 12, 13
Fixed Income	14, 15, 16
Security Analysis	17, 18
Options & Futures	20, 21, 22, 23

### 5.2 Schedule

A tentative schedule for the midterm test and the final exam as well as the deadlines for the problem sets are presented in the table below (subject to change).

<b>Week</b>	<b>Date</b>	<b>Deadline</b>
1	January 12, 2023	
2	January 19, 2023	
3	January 26, 2023	
4	February 2, 2023	Problem Set 1
5	February 9, 2023	
6	February 16, 2023	Problem Set 2
<i>Recess Week</i>		
7	March 4, 2023	
8	March 9, 2023	Midterm Test
9	March 16, 2023	
10	March 23, 2023	Problem Set 3
11	March 30, 2023	
12	April 6, 2023	Problem Set 4
13	April 13, 2023	
Final Exam		

## 6 Academic Honesty & Plagiarism

Academic integrity and honesty is essential for the pursuit and acquisition of knowledge. The University and School expect every student to uphold academic integrity & honesty at all times. Academic dishonesty is any misrepresentation with the intent to deceive, or failure to acknowledge the source, or falsification of information, or inaccuracy of statements, or cheating at examinations/tests, or inappropriate use of resources.

Plagiarism is “the practice of taking someone else’s work or ideas and passing them off as one’s own” (The New Oxford Dictionary of English). The University and School will not condone plagiarism. Students should adopt this rule – You have the obligation to make clear to the assessor which is your own work, and which is the work of others. Otherwise, your assessor is entitled to assume that everything being presented for assessment is being presented as entirely your own work. This is a minimum standard. In case of any doubts, you should consult your instructor.

Additional guidance is available at: [Acceptance Record](#) and [NUS Student Code of Conduct](#).

## References

**Bodie, Zvi, Alex Kane, and Alan J. Marcus.** 2021. *Investments 12th Edition*. McGraw-Hill.

**Bodie, Zvi, Alex Kane, and Alan J. Marcus.** 2022. *Essentials of Investments 12th Edition*. McGraw-Hill.

**Sagan, Carl.** 2011. *The demon-haunted world: Science as a candle in the dark*. Ballantine books.