

## **FIN3702A: INVESTMENT ANALYSIS AND PORTFOLIO MANAGEMENT**

Instructor: Mr. Winston Low  
BIZ2 #02-17  
Email: winstonlow@nus.edu.sg

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### **Course Objectives**

This is an introductory course in financial investments and portfolio management. It provides a comprehensive coverage of basic concepts, theories, applications and decision-making rules in financial investment. 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.

### **Prerequisites**

- FIN2704 or FIN2704X
- Basic understanding of Excel Spreadsheet functions
- Use of a financial calculator

### **Course Textbook**

The reference noted below has been placed in the RBR section in HSSML:

**Bodie, Zvi, Alex Kane and Alan Marcus, 2021, *Investments (12<sup>th</sup> Edition)*, McGraw Hill, ISBN 978-1-260-59024-1.**

All other course materials, journal articles and information pertaining to FIN3702A will be posted on Canvas. You are expected to check any updates and files on the Canvas system on the regular basis. You are encouraged to read the financial news from Bloomberg or The Financial Times regularly.

### **Assessment Methods**

Class Participation	10%
Group Exercises	20%
Midterm Test	25%
Final Exam	40%
Ethics	5%
<b>Total</b>	<b>100%</b>

## **I. Class participation (10%)**

Both class preparation and participation are important. The classroom is a great place to test and enhance your understanding of the material by asking and answering questions. It will be hard to contribute to the discussions if you are unprepared. I strongly encourage you to prepare for class.

Class participation, from clarifying questions to insightful comments, is greatly encouraged. Your active participation will transform this class into a great learning experience for everyone, including myself.

## **II. Group Exercises (20%)**

**FOUR** Group Exercises will be given to students. Please work in groups for these exercises. The number of members of each group will be determined after the class sizes are confirmed. All groups will submit their answers in the specified week. Each group should submit only **ONE** set of answers through Canvas electronically. Please zip all deliverables into a folder and label it in the following format: "A#\_Group#" with the section number and group number.

Each group member is expected to make a significant contribution to the solution of every problem and will receive the same grade for the component.

## **III. Midterm Test (25%)**

A closed-book test will be held in **Week 7 or 8 (TBC)**.

You may bring up to **TWO** calculators and **ONE double-sided A4-sized help sheet** for the Midterm test. The examinable syllabus of the Midterm Test covers all material up till the Midterm Test. This will be finalized closer to the Midterm Test date.

## **IV. Final Exam (40%)**

A Final Exam will be held in **Exam Week (5 May 2.30pm)**

You may bring up to **TWO** calculators and **ONE double-sided A4-sized help sheet** for the Final Exam. The examinable syllabus of the Final Exam covers all material for the module.

## **V. Investment Ethics (5%)**

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

## **Main Topics:**

### **Topic 1: Introduction (BKM Chapter 1 to 5)**

1. Different asset classes
2. How securities are traded
3. Risk & Return

### **Topic 2: Portfolio Theory (BKM Chapter 6 to 7)**

1. Determine risk tolerance
2. Measure portfolio risk and return
3. Identify investment opportunity set
4. Optimal asset allocation

### **Topic 3: Equilibrium Asset Pricing Models (BKM Chapter 8, 9 & 10)**

1. CAPM
2. Single Factor Model
3. APT
4. Multi Factor Model

### **Topic 4: Efficient Market Hypothesis and its Applications (BKM Chapter 11)**

1. Forms of Market Efficiency
2. Tests of Market Efficiency
3. Passive investment
4. Active investment

### **Topic 5: Behavioral Finance (BKM Chapter 12.1)**

1. Behavioral Biases
2. Limits to Arbitrage

### **Topic 6: Portfolio Management (BKM Chapter 24)**

1. Performance measures
2. Style Analysis

### **Topic 7: Security Analysis (BKM Chapter 17, 18 & 12.2)**

1. Macroeconomic Analysis
2. Industry Analysis
3. Fundamental Analysis
4. Technical Analysis

### **Topic 8: Bond Investment (BKM Chapter 14, 15 & 16)**

1. Bond features
2. Bond pricing and yields
3. Interest rate determinants
4. Term structure theories
5. Duration and Convexity
6. Bond investment

### **Topic 9: Options & Futures (BKM Chapter 20, 21, 22, & 23)**

1. Overview of derivatives
2. Options and Futures
3. Investment with derivatives

### **Tentative Schedule (Subject to Change):**

<b>Week</b>	<b>Lesson</b>	<b>Topic</b>	<b>Deliverable</b>
1 (9/1)	Lecture 1	Topic 1	
2 (16/1)	Lecture 2	Topic 2	
3 (23/1)	Lecture 3	Topic 3	
4 (30/1)	Lecture 4	Topic 4	Group Exercise 1
5 (6/2)	Lecture 5	Topic 5 & 6	
6 (13/2)	Midterm Test Review		Group Exercise 2
<i>Recess Week</i>			
7 (27/2)	<b>No Lesson</b>		<b>Midterm Test</b>
8 (6/3)	Lecture 6	Topic 7	
9 (13/3)	Lecture 7	Topic 8 <i>Part 1</i>	
10 (20/3)	Lecture 8	Topic 8 <i>Part 2</i>	Group Exercise 3
11 (27/3)	Lecture 9	Topic 9	
12 (3/4)	Group Presentation ( <i>TBC</i> )		Group Exercise 4
13 (10/4)	Final Exam Review		
<i>Reading Week</i>			
5/5	<b>FINAL EXAM</b>		

### **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:

<https://www.nus.edu.sg/registrar/administrative-policies-procedures/undergraduate/acceptance-record - NUSCodeofStudentConduct>

<http://nus.edu.sg/osa/resources/code-of-student-conduct>