

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

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Session: Semester 1, AY 2022/2023

### **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 financial calculator

### **Preclusions**

- FIN3102 or FE5108 or EC3333 or QF3101

### **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 LumiNUS. You are expected to check any updates and files on the LumiNUS 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 Assignment	15%
Group Project	25%
Test 1	25%
Test 2	20%
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 Assignment (15%)**

ONE Group Assignment will be given to students. Please work in groups for this assignment. 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 LumiNUS 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 assignment. More details will be provided in due course.

### **III. Group Project (25%)**

Each group will complete ONE project and submit an **Excel** workbook and also a presentation deck in **PPT/PDF** document. The project deliverables shall be submitted through LumiNUS electronically. Please zip all deliverables into a folder and label it in the following format: "A#\_Group#\_Case#" with the section number, group number and case number. The final presentation is scheduled on week 13.

Each group member is expected to make a significant contribution to the solution of the project and will receive the same grade for the assignment. More details will be provided in due course.

### **IV. Test 1 (25%)**

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

You are allowed to bring two calculators and a **two-sided A4-sized help sheet** for Test 1. The examinable syllabus of Test 1 covers Lectures 1 – 5 (Topics 1 – 6).

### **V. Test 2 (20%)**

A closed-book test will be held in **Week 12**.

You are allowed to bring two calculators and a **two-sided A4-sized help sheet** for Test 2. The examinable syllabus of Test 2 covers Lectures 6 – 8 (Topic 7 – 9).

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

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

### **VII. Online quizzes on LumiNUS (0%)**

There will be online quizzes posted on LumiNUS each week as a means of reviewing the material covered for that topic. These are self-administered and not included in the assessment rubric.

## **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 (end of week)</b>
1 (8/8)	Lecture 1	Topic 1	
2 (15/8)	Lecture 2	Topic 2	
3 (22/8)	Lecture 3	Topic 3	
4 (29/8)	Lecture 4	Topic 4	
5 (5/9)	Lecture 5	Topic 5 & 6	Group Assignment
5 (12/9)	Test 1 Review		
<i>Recess Week</i>			
7 (26/9)	<b>No Lesson</b>	<b>Test 1</b>	
8 (3/10)	Lecture 6	Topics 7 & 8 <i>Part 1</i>	
9 (10/10)	Lecture 7	Topic 8 <i>Part 2</i>	
10 (17/10)	Lecture 8	Topic 9	
11 (24/10)	Test 2 Review		Group Project
12 (31/10)	<b>No Lesson</b>	<b>Test 2</b>	
13 (7/11)	Project Presentations		

### **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>