

## **FIN3102: INVESTMENT ANALYSIS AND PORTFOLIO MANAGEMENT**

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Session: Semester 2, 2017/2018

### **Course objectives**

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.

### **Prerequisites**

- Finance (FIN2004)
- Statistics (BZ1008/ST1131A)
- Basic understanding of Excel Spreadsheet functions
- Financial calculator

### **Course textbook**

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

**Bodie, Zvi, Alex Kane, Alan Marcus and Ravi Jain, 2014, *Investments: Asia Global Edition*, McGraw Hill, ISBN 978-007-126228-6.**

All other course materials, journal articles, data files, and information pertaining to FIN3102 will be posted on the IVLE. You are expected to check any updates and files on the IVLE system on the regular basis. You are encouraged to use IVLE discussion forum for your questions and comments. I encourage you to read regularly the financial news from Wall Street Journal or the Financial Times.

### **Assessment Methods**

Class Participation	10%
Group Assignment	10%
Group Project	25%
Test 1 (10 March 2018)	20%
Test 2 (19 April 2018)	30%
<u>Ethics</u>	<u>5%</u>
<b>Total</b>	<b>100%</b>

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

Credits will be given for active participation in class. (*Warning: Zero mark will be given for non-participation throughout the course.*) Students will also be prompted with questions on any additional articles discussed in class.

## **II. Group Assignment (10%)**

Weekly assignments will be given to all students. The answers should be prepared in groups. All groups will submit their answers in class in the following week. Groups will be randomly selected to present the answers in class.

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

There are four projects in this course. Each class will form 8 groups. Two groups will work on one of the four projects. The group will complete a 10-page project report including appendix in **MICROSOFT WORD** document (with font size 12) and be prepared to present in class at scheduled time. The group report shall be submitted through IVLE electronically. When uploading the reports, please label the file in the following format: "A1\_Group1\_Project1" with the section, group and project number.

## **IV. Test 1 (20%)**

A 1.5-hour closed-book test will be held on **10 March 2018 (Saturday) from 10:30am to 12pm**. You are allowed to bring a financial calculator and one-sided A4-sized Note for Test 1. Test 1 covers up to topic 5.

## **V. Test 2 (30%)**

A 2-hour closed-book test will be held on **19 April 2018 (Thursday) from 6pm to 8pm**. You are allowed to bring a financial calculator and two-sided A4-sized Note for Test 2. Test 2 covers everything taught in the course.

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

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

## **Consultation Hours**

TBC

## **Main Topics:**

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

1. What is an investment?
2. Why is it important to learn?
3. What can we invest in?
4. Where can we invest?
5. How do we invest?

### **Topic 2: Portfolio Theory (BKMJ 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: Equilibriums Asset Pricing Models (BKMJ Chapter 8, 9 & 10)**

1. Equilibrium asset pricing models
2. Multifactor asset pricing models
3. Arbitrage pricing theory

### **Topic 4: Efficient Market Hypothesis and its Applications (BKMJ Chapter 11 & 12)**

1. Market efficiency hypothesis
2. Behavioral Finance
3. Technical Analysis

### **Topic 5: Portfolio Management (BKMJ Chapter 24)**

1. Passive investment
2. Active investment
3. Performance evaluation

### **Topic 6: Security Analysis (BKMJ Chapter 17 & 18)**

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

### **Topic 7: Bond Investment (BKMJ Chapter 14, 15 & 16)**

1. Features of bonds
2. Price determinants of bonds
3. Investment in bonds

### **Topic 8: Options & Futures (BKMJ Chapter 20, 21, 22, & 23)**

1. Options
2. Futures
3. Investment with derivatives

### **Topic 9: Investment in Singapore**

## **Schedule:**

Week 1: Topic 1

Week 2: Assignment 1 & Topic 2

Week 3: Assignment 2 & Topic 3

Week 4: Assignment 3 & Topic 4

Week 5: Assignment 4 & Topic 5

Week 6: Assignment 5 & Topic 6

Recess Break

Week 7: Mid-term review

(Test 1 on 10 March 2018 (Saturday) from 10:30am to 12pm)

Week 8: Assignment 6 & Topic 7

Week 9: Assignment 7 & Topic 8

Week 10: Assignment 8 & Topic 9

Week 11: Project 1 and 2

Week 12: Project 3 and 4

Week 13: Final Review

(Test 2 on 19 April 2018 (Thursday) from 6pm to 8pm)

## **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:

<http://www.nus.edu.sg/registrar/adminpolicy/acceptance.html#NUSCodeofStudentConduct>

Online Module on Plagiarism:

<http://emodule.nus.edu.sg/ac/>