FIN 3102: INVESTMENT ANALYSIS AND PORTFOLIO MANAGEMENT

Instructor:  Asst. Professor Dr. Zhang Weina  
BIZ1 Building, 03-04  
Tel: 65168120  
Email: bizzwn@nus.edu.sg

Session:  Semester 2, 2013/2014

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.

I will expect high level of academic integrity compiling to the student conduct at NUS. ANY e-devices (cell phones, PDAs, iPhones, Blackberries, other texting devices, laptops, iPods) must be completely turned off during class time. Upon request, you must comply and put your device on the table in off mode and face down. You might also be asked to deposit your devices in a designated area in the classroom. Please be respectful at all times.

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:


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

(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 the additional assigned readings from the financial times, the economists, and the Bloomberg.

(ii) Test 1

2-hour closed-book test will be held on 8 March 2014 (Saturday of Week 7) from 10am to 12noon. Venue to be decided.

(iii) Test 2

2-hour closed-book test will be held on 12 April 2014 (Saturday of Week 12) from 10am to 12noon. Venue to be decided.

Maximum (Test 1, Test 2) = 35%
Minimum (Test 1, Test 2) = 25%

(iv) Group Assignments and Presentations (30%)

Each group will be given two assignments to complete. Assignment 1 is to make a presentation from the chosen topic in the given week. Assignment 2 is one grand project assigned for every group and each group is expected to write a report (less than 10-pages). The presentation of assignment 2 will be on Week 13. The assignments due dates are given below:

Assignment 1 Due date:
Monday morning at 9:00am in the presentation week (hard and soft copies of slides)

Assignment 2 Due date:
14 April 2014 at 9:00am in my office (only the hard copies of the report)

Tentative Course Plan (subject to changes):

PART I – INTRODUCTION AND REVIEW

Topic 1: Introduction and Review
- introduction and syllabus
- capital markets and securities trading
- delegated portfolio management, mutual funds
- returns and portfolios
- means, standard deviations, and covariances
- running and interpreting regressions
PART II – PORTFOLIO THEORY

Topic 2: Investing in a Single Risky Asset
• utility maximization theory
• risk and return
• optimal investment with one risky and one riskless asset

Topic 3: Diversification
• different asset classes
• the efficient frontier of risky assets
• portfolio constraints
• estimation risk
• factor models

Topic 4: Asset Pricing and the CAPM
• the CAPM
• the Fama-French three-factor model
• models of means vs models of covariances

PART III – APPLICATIONS OF PORTFOLIO THEORY

Topic 5: Market Efficiency
• the efficient market hypothesis
• technical and fundamental analysis
• event studies

Topic 6: Asset Pricing in Practice
• testing asset pricing models
• empirical evidence on CAPM and FF
• anomalies

Topic 7: Behavioral Finance
• prevailing behavioral theories
• Links between behavioral theories and traditional asset pricing models

Topic 8: Portfolio Management and Performance Evaluation
• passive and active fund management
• measures of abnormal performance
• style benchmarks
• survivorship bias

Topic 9: Fixed Income Investments
• pricing
• the relationship between prices, interest rates and yields
• the expectations hypothesis and liquidity premium hypothesis
• duration and immunization
• making bets with bond portfolios

Topic 10: Long-Horizon Investing [*if time permits*]

Topic 11: Macroeconomic risk and return analysis [*if time permits*]