



北京理工大学学术学分课程

BIT Academic Credit Courses Program

FIN532 - APPLIED PORTFOLIO MANAGEMENT AND MODELING

Syllabus

Apr. 6 - Apr. 30, 2021

Term Duration: Apr. 6, 2021 – Apr. 30, 2021

Credit Points: 4

Level: Undergraduate

Home Institution: Beijing Institute of Technology

Lecture Hour: 15:40-18:40

(**Note:** Due to the epidemic situation, spring session courses will be conducted online and the course schedule is to be announced.)

Course Description

This course provides an overview of investment theories and the basic, traditional approaches to financial modeling and analysis. With the equal emphasis on theory and practice of this course, students are required not only to acquire the knowledge, but also to apply the theories to evaluate the different types of portfolios, assess portfolio risks and develop investment strategies. Topics of this course covers the Asset Allocation, Markowitz portfolio theory, the CAPM, equity valuation, the passive and active funds management, bonds valuation and the use of derivative securities in funds management. The basic and advanced models in the areas of corporate finance, portfolio management, options will also be discussed.

Course Aims

Upon successful completion of this course, students should be able to:

1. have an profound understanding of the key theories and concepts in the field of portfolio management;
2. value various securities including bonds, stocks and potions and analyze the investment risks and manage them with the financial models and the analyzing techniques;
3. assess different types of portfolios and understand the impact of different portfolio management strategies;
4. build optimal investment portfolios with the portfolio theory and apply valuation techniques to a portfolio;
5. analyze the real-world problems in portfolio management with the standard models and the evaluation techniques;
6. evaluate the portfolio performance and gain the understanding of the ethics and regulation in the professional asset;
7. communicate the learning outcomes through out the clear and coherent writing and the group projects.

Required Textbook

Analysis of Investments & Management of Portfolios, 10th. International Edition

Author: F. Reilly, K. Brown

Publisher: Western Cengage Learning

ISBN: 9780538482486

Financial Modeling: 3rd. Edition,

Author: Simon Benninga

Publisher: The MIT Press

ISBN: 9780262026284

Course Hours

This course requires 48 contact hours. Lectures are from Monday to Friday.

Prerequisite Course

Students are expected to have taken **Principles of Finance**, or have solid knowledge of all topics covered in the courses mentioned above.

Course Schedule

Week	Day	Chapter	Topic	Assignment/ Notes
Week 1	Day 1	Introduction	An Overview of Portfolio Theory and Application	Information of Portfolio and Application.
	Day 2	Chapter 2	The Asset Allocation	Group Discussion: The importance of Asset Allocation
	Day 3	Chapter 6	Efficient Capital Markets: Efficient Market Hypotheses; Behavioral Finance; Implications of Efficient Capital Markets	Efficient Markets and Technical Analysis
	Day 4	Chapter 7	Markowitz Portfolio Theory	Case study
Week 2	Day 5	Chapter 8	The Capital Asset Pricing Models (CAPM)	Test the CAPM
	Day 6	Chapter 9	Fix-income Securities	
	Day 7	Chapter 10	Multifactor Models of Risk and Return: Arbitrage Pricing Theory & Risk Estimation	Case study
	Day 8	Chapter 11	Equity Valuation: process and techniques	Group Discussion: Derivation of Constant Growth Divident Discout Model
Week 3	Day 9	Chapter 16	Equity Portfolio Management Strategies: Passive and Active Management	
	Day 10	Chapter 12, 13	Analysis of Multiple Stock Portfolio	Create an optimal portfolio
	Day 11	Chapter 17, 18, 19	Analysis and Valuation of Bonds; Interest Rates; Term Structure Theories; Duration Measures	Group Discussion: Yield Spreads
	Day 12	Chapter 20, 22	Definition of Simulating Options and Option Strategies	Case Study- Simulating Portfolio Insurance
Week 4	Day 13	Chapter 21, 23	Forwards and Futures; Swaps	Group Discussion: Forwards and Futures: Applications and Strategies
	Day 14	Chapter 25	Evaluation of Portfolio Performance	
	Day 15	Review		
	Day 16	Final Exam		

Grading Policy

Items	Percentage
Attendance	10%
Assignment	10%
Case study	30%
Final Exam	50%
Total	100%

Academic Honesty

Academic honesty is not only a fundamental part of learning and teaching but also a core value that this course embraces. Behaviors of academic dishonesty, as outlined hereinafter, are unacceptable and will be penalized:

- a) Plagiarism where students present work for assessment, publication or otherwise that is not their own, without appropriate attribution or reference to the source. Plagiarism can include:
 - i) paraphrasing or copying published and unpublished work without a reference;
 - ii) adopting the ideas or concepts of others, including the structure of an existing analysis without due acknowledgement by way of reference to the original work or source.
- b) Collusion, where students present work as independent work when it has in fact been produced in whole or in part with others unless prior permission for joint or collaborative work has been given by the Course Coordinator. Collusion can include:
 - i) a student inappropriately assisting with or accepting assistance with the production of an assessment task;
 - ii) submitting work that is the same or substantially similar to another student's work for the same assessment task.
- c) Cheating, where a student acts in such a way as to seek to gain an unfair advantage or assist another student to do so. Cheating can include:
 - i) submitting falsified, copied or improperly obtained data relating to results of practicum, field trips or other work as if they were genuine; submitting an assessment task with the intention of deceiving or misleading the instructor about the student's contribution to the work;
 - ii) submitting an assessment task written or answered for the student by another person or which the student has copied from another person;
 - iii) submitting the same or a substantially similar piece of work for assessment in two different courses (except in accordance with approved study and assessment schemes);
 - iv) a student falsely indicating that they have been present at an activity where attendance is required;
 - v) completing an assessment task outside the conditions specified for that task.
- d) Cheating in Examinations means engaging in dishonest practice or breaching the rules regarding examinations, which can include:

- i) communicating in any way during an examination with any person who is not an examination supervisor inside or outside the examination venue;
- ii) giving or accepting assistance from any person who is not an examination supervisor whilst in the examination venue;
- iii) reading, copying from or otherwise using another student's work in an examination or knowingly allowing a student to do so;
- iv) possessing, referring to or having access to any material or device containing information directly or indirectly related to the subject matter under examination, other than that explicitly approved by the Course Coordinator;
- v) acquiring, or attempting to acquire, possess or distribute examination materials or information without approval;
- vi) permitting another person to attend an examination on a student's behalf or attending an examination on behalf of another student;
- e) Other dishonest acts including but not limited to:
 - i) altering or falsifying any document or record for the purposes of gaining academic advantage;
 - ii) offering or giving money or any item or service to a University staff member or any other person to gain an academic advantage for the student or another person;
 - iii) inventing references.