课程详述

COURSE SPECIFICATION

以下课程信息可能根据实际授课需要或在课程检讨之后产生变动。如对课程有任何疑问，请联系授课教师。

The course information as follows may be subject to change, either during the session because of unforeseen circumstances, or following review of the course at the end of the session. Queries about the course should be directed to the course instructor.

1.	**课程名称 Course Title**	金融投资概论 Financial Investments
2.	**授课院系 Originating Department**	金融系 Department of Finance
3.	**课程编号 Course Code**	FIN 301
4.	**课程学分 Credit Value**	3
5.	**课程类别 Course Type**	专业核心课 Major Core Courses
6.	**授课学期 Semester**	春季 Spring / 秋季 Fall
7.	**授课语言 Teaching Language**	中英双语 English & Chinese
8.	**授课教师、所属学系、联系方式（如属团队授课，请列明其他授课教师）Instructor(s), Affiliation& Contact（For team teaching, please list all instructors）**	栗沛沛,助理教授，金融系 Peipei LI, Assistant Professor, Department of Finance 邮箱/Email: lipp@sustc.edu.cn 电话/Phone: 8801-8606 办公室/office:慧园 3 栋 305, Wisdom Valley 3#305
9.	**实验员/助教、所属学系、联系方式 Tutor/TA(s), Contact**	Session 1 TA: WU Yingying (伍莹莹) 邮箱/Email: 11749241@mail.sustc.edu.cn Session 2 TA: HUANG Chunfei (黄纯飞) 邮箱/Email: cfhuangnku@163.com
10.	**选课人数限额(可不填) Maximum Enrolment（Optional）**	

11.	授课方式 Delivery Method	讲授 Lectures	习题/辅导/讨论 Tutorials	实验/实习 Lab/Practical	其它(请具体注明) Other（Please specify）	总学时 Total
	学时数 Credit Hours	48				48

12.	先修课程、其它学习要求 Pre-requisites or Other Academic Requirements	微观经济学 Microeconomics: FIN201 宏观经济学 Macroeconomics: FIN204 概率论与数理统计 Probability and Statistics: MA212
13.	后续课程、其它学习规划 Courses for which this course is a pre-requisite	
14.	其它要求修读本课程的学系 Cross-listing Dept.	

教学大纲及教学日历 SYLLABUS

15. **教学目标 Course Objectives**

本课程通过对投资组合理论及其应用的讨论，其中包括资产定价模型，市场有效性的概念以及投资组合管理等等，使学生能够对投资的基本概念和投资组合分析进行深入学习。

This course aims to provide students with an in-depth study of the fundamental concepts of investment and portfolio analysis. In particular, we will discuss portfolio theory and practice, asset pricing models, the notion of market efficiency and portfolio management.

16. **预达学习成果 Learning Outcomes**

模拟交易使学生学会投资中的实践技能，结合接近真实的投资体验和课程理论完成读书报告。

The course has a “Trading Game” for the students to learn hands-on skills in investment. Also, the students are required to submit book reports. These arrangements will give the students a flavor of investment practice in industry.

17. **课程内容及教学日历 （如授课语言以英文为主，则课程内容介绍可以用英文；如团队教学或模块教学，教学日历须注明主讲人）**
Course Contents (in Parts/Chapters/Sections/Weeks. Please notify name of instructor for course section(s), if this is a team teaching or module course.)

第一讲 课程和教学大纲介绍，美国的投资环境和金融市场（3 学时）

通过本讲的学习，学生将了解到金融证券市场的作用，金融投资的对象和主要参与者。同时，学生也将了解到金融投资的内涵，过程与方法。

Lecture1 Course introduction, Syllabus review, The Investment Environment and Financial Markets in US(3 hours)

This lecture will provide students an overview of the organization of security markets as well as the various players that participate in those markets. Together, these introductions should give students a feel for who the major participants are in which they act.

第二讲 交易性证券（3 学时）

本讲将让学生了解到证券品种的特点，包括债券的种类，股票的种类，证券的发行方式和交易机制。本讲也将介绍共同基金这种投资工具的功能，特点及其费用结构对投资收益的影响。

Lecture2 Trading Securities（3 hours）

This lecture will provide students with a broad introduction to the mechanics of trading securities and the structure of the markets in which securities trade. We then examine the functions of mutual funds, their investment styles and policies, and the costs of investing in these funds.

第三讲 投资决策的决定性因素：收益与风险（3 学时）

本讲将介绍从历史数据中分析投资风险与回报的重要工具，学生将了解到利率水平的决定因素，如何比较不同持有期的收益率。

Lecture3: Two determinants of Investment Decisions: Return and Risk(3 hours)

In this lecture, we will present the essential tools for estimating expected returns and risk from the historical record and consider implications for future investments. The students will learn the determinants of the level of interest rates and how to comparing rates of return for different holding periods.

第四讲 投资组合计算和资本配置（3 学时）

本讲将介绍资产配置的基本框架。首先从风险出发，介绍风险资产和无风险资产，然后分析资产配置线的形成过程，最后结合在一起形成最优的资产配置。

Lecture4 Portfolio Mathematics and Capital Allocation(3 hours)

This lecture will introduce the process of constructing an overall portfolio. Firstly, we will introduce risk assets and risk-free assets from the risk, then analyze the formation process of asset allocation lines, and finally combine them to form the optimal asset allocation.

第五讲 投资组合分析和马科维茨投资组合选择模型（3 学时）

本讲将重点介绍马科维茨的资产组合理论，由两种风险资产组合的可行性集得到有效边界，再结合投资者的效用函数得到最优的投资组合。通过本讲的学习，学生不仅要掌握投资组合理论的内容，还要能进行相关的计算。

Lecture5 Portfolio Analyses and the Markowitz Portfolio Selection Model(3 hours)

In this lecture, we will examine the process of efficient diversification from the ground up, starting with an investment menu of only two risky assets, then adding the risk-free asset, and finally, incorporating the entire universe of available risky securities. Through the study of this lecture, students should not only know the portfolio theory, but also be able to carry out related calculations.

第六讲 指数模型（3 学时）

本讲通过指数模型进一步对最优证券投资组合进行分析，重点介绍单指数模型的含义，统计性质以及实际应用。

Lecture6 Index Models （3 hours）

This lecture will introduce index models that simplify estimation of the covariance matrix and greatly enhance the analysis of security risk premiums. We will describe a single-factor security market and show how it can justify a single-index model of security returns, then reviewing the statistical properties of these estimates and show how they relate to the practical issues facing portfolio managers.

第七讲 资本资产定价模型 （3 学时）

本讲将介绍资本资产定价模型的主要内容，理解资本资产定价模型的基本含义，掌握资本资产定价模型的相关应用。

Lecture7 The Capital Asset Pricing Model(3 hours)

This lecture will introduce the capital asset pricing model. First, it provides a benchmark rate of return for evaluating possible investments. Second, the model helps us to make an educated guess as to the expected return on assets that

have not yet been traded in the marketplace.

第八讲 套利定价理论和多因素模型（3 学时）

本讲将介绍套利定价理论的基本思想和基本条件，当收益率通过单一因子(市场组合)形成时，将会发现套利定价理论形成了一种与资本资产定价模型相同的关系。因此，套利定价理论可以被认为是一种广义的资本资产定价模型，

Lecture8 APT and Multifactor Models(3 hours)

In this lecture, we will show how the no-arbitrage conditions together with the factor models allow us to generalize the security market line of the CAPM to gain richer insight into the risk–return relationship. In a single-factor market where there are no extra-market risk factors, the APT leads to a mean return–beta equation identical to that of the CAPM.

期中考试（1.5 学时）

MIDTERM EXAM(1.5 hours)

第九讲 投资组合绩效评估（3 学时）

通过本讲的学习，学生可以了解传统的业绩评价理论，特别是风险调整的测度方法。

Lecture9 Portfolio Performance Evaluation(3 hours)

This lecture will introduce the measurement of portfolio returns especially the conventional approaches to risk adjustment. We identify the problems with these approaches when applied in various real-life situations.

第十讲 有效市场假说和行为金融学（3 学时）

本讲将介绍有效市场假说，有效市场假说认为参与市场的投资者有足够的理性，并且能够迅速对所有市场信息作出合理反应。更进一步，学生也将学习到行为金融学的基本内容，并且能够利用行为金融理论解释金融市场中的反常现象。

Lecture10 The EMH and Behavioral Finance(3 hours)

This lecture will show how competition among analysts leads naturally to market efficiency, and examine the implications of the efficient market hypothesis for investment policy. The efficient market hypothesis makes implies that security prices properly reflect whatever information is available to investors. On the contrary, behavioral finance starts with the assumption that investors are not rational. We will examine some of the information processing and behavioral irrationalities uncovered by psychologists in other contexts and show how these tendencies applied to financial markets might result in some of the anomalies.

第十一讲 固定收益证券（3 学时）

本讲将介绍债券的基本类型，债券定价的基本方法以及债券价格同市场利率的变化特征，介绍违约风险对债券价格的影响，理解各种债券的收益率。

Lecture11 Fixed-Income Securities(3 hours)

This lecture will give an overview of the universe of bond markets, including Treasury, corporate, and international bonds. Then we will show how bond prices are set in accordance with market interest rates and why bond prices change with those rates. Finally, we consider the impact of default or credit risk on bond pricing and look at the determinants of credit risk and the default premium built into bond yields.

第十二讲 利率的期限结构（3 学时）

本讲将根据某个时点不同期限的即期利率与到期期限的关系及变化规律来介绍利率的期限结构，通过本讲的学习，学生将可以理解收益率曲线的推导，并且能够利用期限结构计算远期利率。

Lecture12 The Term Structure of Interest Rates(3 hours)

This lecture attempt to identify the factors that account for that pattern and determine what information may be derived from an analysis of the so-called term structure of interest rates, the structure of interest rates for discounting cash flows of different maturities. We will show how the prices of Treasury bonds may be derived from prices and yields of stripped zero-coupon Treasury securities and how traders can use the term structure to compute forward rates.

第十三讲 固定收益投资组合管理（3 学时）

本讲将介绍利率的风险特征与度量，通过本讲的学习，学生可以理解凸性的概念，掌握久期的计算方法以及久期在积极投资策略中的作用。

Lecture13 Managing Fixed-Income Portfolios(3 hours)

This lecture will exam the broad range of applications of the duration measure, we consider refinements in the way that interest rate sensitivity is measured, focusing on the concept of bond convexity. We will have a discussion in the active fixed-income strategies and show duration is important in formulating active investment strategies.

第十四讲 期权市场和估值（3 学时）
本讲将介绍期权市场的投资特点并且对期权的价值进行讨论，通过本讲的学习，学生可以理解 Black-Scholes 期权定价公式以及掌握期权定价理论在投资组合策略中的应用。
Lecture14 Options Markets and Valuation(3 hours)
This lecture will have an introduction to options markets which explains how puts and calls work and examines their investment characteristics. We will present some quantitative models, starting with a simple "two-state" option-valuation model, and then showing how this approach can be generalized into a useful and accurate pricing tool. We will then introduce the students with the famous Black-Scholes model and some of the more important applications of option-pricing theory in portfolio management and control.

第十五讲 期货市场（3 学时）
本讲将介绍期货在金融市场中的作用以及期货市场的特点和交易规则，学生将可以了解到投资者如何利用期货这种投资工具进行避险以及期货在风险管理中的应用。
Lecture15 Future Markets(3 hours)
This lecture will describe the workings of futures markets and the mechanics of trading in these markets. We will demonstrate how futures contracts are useful investment vehicles for both hedgers and speculators and how the futures price relates to the spot price of an asset. We will also show how futures can be used in several risk-management applications.

期末考试（1.5 学时）
FINAL EXAM(1.5 hours)

18. 教材及其它参考资料 Textbook and Supplementary Readings

Bodie, Kane and Marcus (BKM), 2013, Investments, 10th Edition, Mc-Graw Hill Education. (Required)

Maginn et al., CFA, Managing Investment Portfolios: A Dynamic Process, 3rd Edition, Wiley: A classic as well as a must for CFA. You need to write a report after reading it. (more details later)

Copeland, Weston, and Shastri, Financial Theory and Corporate Policy, 4th Edition, Pearson: A bit more advanced than the textbook.

邱国鹭，**投资中最简单的事**，2014，中国人民大学出版社

小小辛巴，**百箭穿杨**，2014，机械工业出版社

课程评估 ASSESSMENT

19.

评估形式 Type of Assessment	评估时间 Time	占考试总成绩百分比 % of final score	违纪处罚 Penalty	备注 Notes
出勤 Attendance		*		
交易模拟 Trading Game		10		
平时作业 Assignments		10		
期中考试 Mid-Term Test		30		
期末考试 Final Exam		40		
期末报告 Final Presentation		10		
其它（可根据需要				

改写以上评估方式） **Others (The above may be modified as necessary)**				

20. 记分方式 **GRADING SYSTEM**

☑ A. 十三级等级制 **Letter Grading** ☐ B. 二级记分制（通过/不通过） **Pass/Fail Grading**

课程审批 REVIEW AND APPROVAL

21. 本课程设置已经过以下责任人/委员会审议通过
This Course has been approved by the following person or committee of authority
