课程大纲

金融工程

课程编号：02812310
学　　分：2
课程类型：选修
先修课程：

授课对象：金融硕士
任课教师：徐江旻
开课学期：2015 春

任课教师简历：
http://www.gsm.pku.edu.cn/faculty/jiangminxu.html

任课教师联系方式：
Office:　New Guanghua Building #337
Email:　jiangminxu@gsm.pku.edu.cn

助教姓名及联系方式：　TBD

辅导、答疑时间：　TBD

一、项目培养目标

Program objective 1 Introducing frontier theories of finance, economics, and management; helping students establish the ability to apply theoretical knowledge and solve real world financial problems. Specific objectives include

- Obtaining systematic understanding of finance, economics, and management theories;
- Mastering quantitative analysis skills;
- Applying theoretical knowledge in class to real problems.

Program objective 2 Building strong communication skills to help students work in financial institutions and companies. Specific objectives include

- Fostering strong oral communication skills;
- Fostering effective written communication skills;
- Building team work spirits.

Program objective 3 Establishing social responsibility and business ethics.

Program objective 4 Gaining an international perspective. Specific objectives include

- Understanding the cultural variety in the financial industry;
- Knowing different financial systems around the world;
- Preparing for effective work at multinational financial institutions.

二、课程概述

This course will be taught in English.

This course aims to cover a broad range of financial derivative products, including forwards, futures, swaps, and options.　It examines the valuation and pricing models for these derivative

products, analyses the financial intuitions behind their valuations, and discusses how to hedge various risks associated with these products.

三、课程目标

By the end of the course, students will have good knowledge of how these financial derivative products work, how they are used, how they are priced, and how financial institutions hedge their risks when they trade the products.

四、内容提要及学时分配

Topic 1: Introduction
Topic 2: Forwards and Futures
Topic 3: Swaps
Topic 4: Mechanics of option markets and properties of options
Topic 5: Trading strategies involving options and binomial trees
Topic 6: The Black-Scholes-Merton model
Topic 7: The Greeks and Volatility Smiles
Topic 8: Dynamic hedging
Topic 9: Options on stock indices, currencies and futures
Topic 10: Exotic options

*The outline provides a general plan for the course. Changes may be necessary. Students are responsible for knowledge of any administrative announcement (e.g. test information, schedule and/or assignment changes etc.) made at any time during scheduled class periods.

期末考试时间： May 19, 2015 in class (the last class)

五、教学方式

This course is designed to be an **interesting, enjoyable** and **challenging** one. Lectures will be the main teaching method. Class attendance is expected for all students. We will cover a significant amount of material each week. It is important that you keep up-to-date with the material.

六、教材

Hull, John C., *Options, Futures, and Other Derivatives, 9th Edition* (8th edition is also fine)

七、作业

There will be about 5 homework assignments in total, which will be graded. Late homeworks will receive a grade of zero automatically.

八、课程学习要求及课堂纪律规范

Submitted homework assignments for grading should be your own or your team's own work only. Academic dishonesty in any form will not be tolerated. Failure to observe this rule may result in an automatic failing grade for the course.

九、学生成绩评定办法（需详细说明评估学生学习效果的方法）

Homework	30%
Final Exam	70%
Total	100%