课程大纲
COURSE SYLLABUS

1.	**课程代码/名称** **Course Code/Title**	**金融计量学及其应用 Financial Econometrics with Application**
2.	**课程性质** **Compulsory/Elective**	选修课 Elective
3.	**课程学分/学时** **Course Credit/Hours**	3/48
4.	**授课语言** **Teaching Language**	中英双语 Chinese and English
5.	**授课教师** **Instructor(s)**	周倜 ,助理教授,金融系 ZHOU Ti, Assistant Professor, Department of Finance, 邮箱/Email:zhout@sustc.edu.cn
6.	**先修要求** **Pre-requisites**	无

7. 教学目标
Course Objectives

本课程有两个目标：
掌握金融计量学的知识以及相关的数量工具，熟悉对应的金融问题和数理模型(以资产定价为主)。熟悉经济和金融市场数据，学会使用统计软件，运用所学金融计量学知识来进行实证分析。

There are two goals for this course:
1. Provide you with an introduction to financial econometrics and help you master related quantitative tools. Help student get familiar with financial theory (especially asset pricing) and quantitative models that are commonly used in empirical studies.

2. Expose you to real financial and economic data; guide you to implement econometric tools in some statistical software and apply these tools to conduct rigorous empirical analyses.

8. 教学方法
Teaching Methods

课堂讲授，上机操作及学生口头报告

9. 教学内容
Course Contents

Section 1	What is empirical research and what does financial econometrics/empirical finance cover? (1 Lecture)
Section 2	Efficient market hypothesis and methods for event studies (4 Lectures)
Section 3	Time-series return predictability and related econometric tests (9 Lectures)
Section 4	Review linear factor models (3 Lectures)
Section 5	Evaluating linear factor models---time series tests, cross-sectional tests, and portfolio sorting approach (10 Lectures including lab tutorial)
Section 6	Cross-sectional return predictability, Capital market anomalies, and Fama-MacBeth method (4 Lectures)
Section 7	Stochastic Discount Factor and Utility-based pricing model; Generalized Methods of Moments (4 Lectures including lab tutorial)
Section 8	Volatility modelling-GARCH、stochastic volatility model、realized volatility model (4 Lectures)
Section 9	Econometrics for derivative pricing-affine jump diffusion models and their empirical performance (5 Lectures)

	Section 10	Paper presentations (4 Lectures)

10. 课程考核
Course Assessment

请再此注明：①考查/考试；②分数构成。
1 考查。2. 具体包括：出勤和课堂讨论（10%），随堂测试（30%），作业（30%）以及期末报告/论文（30%）。

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

1. The Econometrics of Financial Markets (PhD-level textbook in empirical asset pricing), John Y. Campbell, Andrew Lo, and A. Craig MacKinlay,1996
2. John C. Cochrane, 2005, Asset Pricing (Revised Edition). (PhD -level textbook in asset pricing.)
3. Quantitative Financial Economics, 2nd, 2004, Cuthbertson Keith, Nitzsche Dirk (Master-level textbook in empirical asset pricing.)
4. Empirical Dynamic Asset Pricing: Model Specification and Econometric Assessment. (PhD-level econometric methods for dynamic stochastic models), Kenneth J. Singleton, Princeton University Press

Journal Articles from top journals, including Journal of Finance, Journal of Finance Economics, Reviews of Finance Studies, Journal of Political Economy, Econometrica, American Economic Review, Quarterly Journal of Economics.