

FIN 541

Market Microstructure

Module 3, 2022-2023

Course Information

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Office Hour: Tue 11:00-13:00 (or by appointment via email)

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Classes: Tue & Fri 13:30-15:20 @ PHBS Building, TBA

1. Course Description

Course Overview: This course combines theoretical modelling, institutional settings and empirical analysis to understand how securities are traded in financial markets. There are two main parts in the course. The first part provides a brief introduction to modern financial markets, key players, institutions, and regulations, and then moves to basic theoretical models of market microstructure to pave the way for the second part. The second part empirically examines informational efficiency and aggregation in financial markets.

Prerequisites: The course has no formal prerequisites.

2. Textbooks and Reading Materials

There is no assigned textbook for the class. However, here is an incomplete list of reference books that you may find helpful:

1. De Jong, F., & Rindi, B. (2009). *The microstructure of financial markets*. Cambridge University Press.
2. Hasbrouck, J. (2007). *Empirical market microstructure: The institutions, economics, and econometrics of securities trading*. Oxford University Press.
3. Hasbrouck, J. *Securities Trading: Principles and Procedures* (STPP)
<https://pages.stern.nyu.edu/~jhasbrou/STPP/STPPindex.html>

There will also be required readings in the 2nd part.

3. Assessment/Grading Details

There will be three 50-minute quizzes: **Week 3, 6, 9**. Each is worth 25% and non-cumulative. The remaining 25% will be based on required readings. You will be asked to answer a few short questions on required readings before we start discussing them. The purpose of these short assessments is to make sure that everyone has enough incentive to read them.

Academic Honesty and Plagiarism

A student's effort and credit need to be recognized through class assessment. Credits earned for a student's work due to efforts done by others are unfair. Deliberate dishonesty is considered academic misconduct, which includes plagiarism; cheating on assignments or examinations; engaging in unauthorized collaboration on academic work; taking, acquiring, or using test materials without faculty permission; submitting false or incomplete records of academic achievement; acting alone or in cooperation with another to falsify records or to obtain grades, honors, awards, or professional endorsement dishonestly; or altering, forging, or

misusing a University academic record; or fabricating or falsifying of data, research procedures, or data analysis.

All assessments are subject to academic misconduct checks. Misconduct checks may include reproducing the assessment, providing a copy to another faculty member, and/or communicating a copy of this assignment to the PHBS Discipline Committee. A suspected plagiarized document/assignment submitted to a plagiarism-checking service may be kept in its database for future reference purposes. Where a violation is suspected, penalties will be implemented. The penalties for academic misconduct may include a deduction of honor points, a mark of zero on the assessment, a fail grade for the whole course, and a reference of the matter to the Peking University Registrar. For more information on plagiarism, please refer to [PHBS Student Handbook](#).

4. Diversity and Inclusion

We must treat every individual with respect and share a commitment to diversity and equity. Diversity is fundamental to building and maintaining an equitable and inclusive campus environment. In this course, we respect and embrace the unique experiences that brought each person here, including but not limited to race, color, national origin, language, sex, disability, age, sexual orientation, gender identity, religion, background, learning styles, ways of expression, or academic interests. We acknowledge our imperfections while we also fully commit to the work, inside and outside of our classrooms, of removing barriers to education so that everyone may participate fully in the community. I encourage anyone who experiences or observes unfair or hostile treatment based on identity to speak out for justice and support, within the moment of the incident or after the incident has passed.

5. Tentative Topics and Schedule

Part 1: Modern Securities Markets and Information-Based Microstructure Models (Week 1-4)

- 1.1.** Introduction
- 1.2.** Elements of Securities Markets
- 1.3.** Kyle's Model
- 1.4.** Glosten-Milgrom Model
- 1.5.** Grossman and Stiglitz Model

Part II: Information and Efficiency (Week 5 – 9)

- 2.1.** Efficient Market Hypothesis
- 2.2.** Price Discovery and Price Informativeness
- 2.3.** The Basics of Algorithmic and High Frequency Trading

Note 1: The topics and schedules are subject to further revisions along the progress of the course.