

# Market Microstructure Theory

## Course Outline

Academic Semester: 2025/26

### 1. General

School	<b>School of Finance and Statistics</b>		
Academic Unit	<b>Department of Banking and Financial Management</b>		
Level of Studies	<b>Undergraduate</b>		
Course Code	<b>XPΘMA01</b>		
Semester	<b>6th or 8th</b>		
Course Title	<b>Market Microstructure Theory</b>		
Independent Teaching Activities	Weekly Teaching Hours	Credits	
<b>Lectures</b>	<b>4</b>	<b>7,5</b>	
Course Type	<b>Special topic (elective course)</b>		
Prerequisite Courses			
Language of Instruction and Examinations	<b>Greek, textbooks in English are suggested. Examination is in Greek.</b>		
Is the course offered to Erasmus Students?	<b>YES (in English)</b>		
Url (Eclass)	<b><a href="https://eclass.unipi.gr/modules/auth/courses.php?fc=64">https://eclass.unipi.gr/modules/auth/courses.php?fc=64</a></b>		

### 2. Learning Outcomes

#### Learning Outcomes

The main goal of the course is to introduce the students to the basic concepts and theories that have been developed in recent years for markets' microstructure. More specifically, the subjects the course will study:

- The distinction of markets into primary and secondary and into markets of organized or over-the-counter mechanisms
- The theory of formation of prices and trading volumes, the concept of equilibrium and efficiency in a securities market
- The price spread and the concept of liquidity of a market and the "central" role of the central market maker
- The strategic behavior of investors and its effect on prices
- The categories of the orders and their properties
- The information asymmetry and the way it is modelled
- How the liquidity of a market is defined, measured and affected

#### General Competences

- Autonomous work
- Team work
- Work in inter-scientific environment

### 3. Syllabus

#### 1. The distinction of markets

- In primary and secondary markets.
- In organized markets (organized exchange).

- In money and capital markets (money market and capital market).
- The structure of markets and trading protocols.

## 2. Setting prices and trading volumes

- The concept of equilibrium in a market (market equilibrium).
- The concept of rational expectations.
- The concept of efficiency in a market (efficiency).
- Setting prices through an auction.

## 3. The price spread and the factors that affect it

- The concept of market liquidity.
- The “central” role of the central negotiator (market maker).
- Inventory cost and risk
- The importance of asymmetric information.

## 4. Strategic behavior of participants

- The distinction of investors.
- The competition between central negotiators.
- The application of game theory.
- Deviation from market efficiency due to strategic behavior.

## 5. The categories of orders

- Buy and sell orders
- Order composition and investment objectives.

## 6. Information asymmetry

- The importance and source.
- How it relates to price margin.
- Basic mathematical models.
- Investment strategies derived from asymmetry.

## 7. Liquidity

- Definitions and meanings
- Liquidity measures
- Influencing factors

## 4. Teaching and Learning Methods - Evaluation

Delivery	In classroom	
Use of Information and Communications Technology		
Teaching Methods	<b>Activity</b>	<b>Semester Workload</b>
	Lectures	52
	Autonomous study	100
	Homeworks	35,5
	<b>Course Total</b>	<b>187,5</b>

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Student Performance Evaluation

Writing exams (90%) that refers to the theoretical questions and exercises on the material developed in the class.

Homeworks (10%) that ask students to solve some related to the course exercises.

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## 5. Attached Bibliography

### Suggested Bibliography

- de Jong, F. and Rindi, B. (2009). *The Microstructure of Financial Markets*, Cambridge University Press.
- Foucault, T., Pagano, M., & Roell, A. (2013). *Market liquidity: Theory, evidence, and policy*. Oxford University Press.
- Harris, L. (2003). *Trading and exchanges: Market microstructure for practitioners*. Oxford University Press.
- Hasbrouck, J. (2007). *Empirical Market Microstructure: The Institutions, Economics, and Econometrics of Securities Trading*. Oxford University Press.

### Related Academic Journals