Digital Finance (Lecture+Tutorial)

Summer semester

Institute:	Institute for Financial Innovation & Technology
Lecturer:	Prof. Dr. Ryan Riordan
Assistant:	Andreas Wittmann, M.Sc. & Florian Schuchardt, M.Sc.
Weekly hours:	2+2 SWS
Credits	6 ECTS
Examination:	Exam (120 minutes) at the end of the semester
Prerequisites:	None
Course Material:	Will be provided via Moodle

Course Description & Main Objectives

Substantial parts of the financial value chain are continuously being disrupted by technology-based innovators. The course offers a comprehensive exploration of modern securities markets, trading mechanisms, and market micro-structure. It addresses both theoretical and practical aspects of financial markets and provides insights into market dynamics. Special focus is placed on algorithmic trading and the role of technological innovation.

Lectures Overview/ Course Outline

Lecture 1	Introduction	Tutorial 1	Modern Securities Markets
Lecture 2	Modern Securities Markets	Tutorial 2	Alternatives to Limit Order Markets
Lecture 3	The Basics of Trading	Tutorial 3	Information & Efficiency
Lecture 4	Alternatives to Limit Order Markets	Tutorial 4	Market Microstructure
Lecture 5	Market Microstructure	Tutorial 5	Algorithmic Trading
Lecture 6	Information & Efficiency	Tutorial 6	Coding Session I
Lecture 7	Algorithmic Trading	Tutorial 7	Coding Session II
Lecture 8	High-Frequency Trading	Tutorial 8	Measuring Liquidity in Crypto Markets
Lecture 9	Centralized vs. Decentralized Finance		
Lecture 10	Crypto Markets I		
Lecture 11	Crypto Markets II		

Literature

Harris, L. (2003). Trading and Exchanges - Market Microstructure for Practitioners. Oxford University Press.

Hasbrouck, J. (2021). Securities trading: Principles and procedures.

O‘Hara, M. (1994). Market Microstructure Theory. Blackwell Publishers, Malden, MA.