

BMME028: FinTech

Lecturer	Thomas Lambert
Course coordinator	Thomas Lambert
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Structure	Online lectures
Assessment	See assessment matrix
Conditions for access to tests	No
Teaching block	4
EC	6
Entry requirements or required background knowledge, if applicable	There are no formal entry requirements for this course. However, a sound undergraduate-level knowledge in corporate finance and investment is required.
Course schedule	Please visit https://courses.eur.nl

Course Overview

FinTech covers digital innovation and technology-enabled business model innovation in the financial services industry. FinTech is rapidly evolving across the globe and represents an existential challenge for major parts of the financial sector. These innovative technologies can disrupt existing industry structures and blur industry boundaries, facilitate disintermediation, radically change how firms create and deliver products and services, generate significant privacy, regulatory and law-enforcement challenges, offer new gateways for entrepreneurship, and create opportunities for inclusive growth.

In this course, we will provide an introductory overview of innovations that are central to FinTech in the areas of payment, capital raising, investment, and credit. Specifically, we will mainly focus on blockchain technology and its specific issues and applications. However, we will also cover other innovations, including crowdfunding, robo-advising, social trading, marketplace lending, mobile money, and central bank digital currency. We will also explore threats and opportunities that these technologies pose to incumbent firms and discuss the way that FinTech interacts with law enforcement and regulation issues. Furthermore, the course will feature a number of guest speakers from industry.

Learning Goals

At the end of this course students will be able to:

- **Describe** what FinTech is and why it emerged.
- **Explain** both fundamentals and economics of the following FinTech: bitcoin and blockchain, crowdfunding, utility and security tokens, robo-advising, social trading, marketplace lending, mobile money, and central bank digital currency.
- **Analyze** the potential and limitations of these FinTech (and their applications).
- **Assess** a FinTech business model.
- **Develop** a new venture idea linked to blockchain.

Course Materials

- Lecture slides (via Canvas).
- Schär, Fabian and Aleksander Berentsen. 2020. *Bitcoin, Blockchain, and Cryptoassets: A Comprehensive Introduction* (Cambridge: MIT Press) – ISBN: 9780262539166.
- Articles referenced in the reading list provided in Canvas. These articles can be downloaded for free from the EUR library databases.
- Students are encouraged to stay current on the topic by following recent developments:
 - For breaking FinTech news, an authoritative source is: www.coindesk.com
 - For Financial Times articles, the sign-up link is: <https://join.ft.com/8939b6b1-f8cd-4835-88b8-a0829b960dfa>

Course Information

Teaching method:

- Teaching is based on (online) lectures that cover theory and applications.
- Students are expected to read the assigned literature before each lecture.
- Students are expected to prepare the pre-class assignments (if any).
- Class interaction is an essential ingredient of the lectures.

Illegal recordings:

Students should be aware that any recording or taping of lectures, workshops, and other events at RSM requires the explicit prior consent of the lecturer/organizer. Any violations of this policy will be reported to the exam board, which decides on further measures.

Topics covered:

- Module 1. Introduction to Fintech
- Module 2. Bitcoin and Blockchain
 - Monetary Theory and Bitcoin
 - Technical Analysis
 - Bitcoin's Challenges
 - Smart Contracting
- Module 3. Raising Capital
 - Traditional Capital Raising
 - FinTech Alternatives: Crowdfunding, P2P Lending, Token Offering
- Module 4. Investing
 - Investing in Low Interest Rate Environments
 - Optimizing Investor Utility

- FinTech Solutions
- Module 5. Lending
 - Banks and the FinTech Movement
 - P2P Lending
- Module 6. Additional Topics
 - Mobile Money
 - Central Bank Digital Currency
 - Decentralized Finance (DeFi)

Grading:

The final grade of this course (6 ECTS) consists of the following partial grades:

- The first part of the grade (counting for 40% of the final grade) consists of a **group assignment**.
- The second part of the grade (50% of the final grade) consists of an individual un-proctored **online exam** using Canvas. The exam is based on all material (lecture slides, textbook, articles, assignments) that has been covered during the course. The exam is open-book and consists of open questions about application and integration of concepts. Different parts may not get same weight. Note that for some questions, different answers will be viable, as long as the reasoning is compelling and based on the principles covered in class.
- The third part of the grade (10% of the final grade) evaluates **in-class performance** based on the quality of in-class presentations and the quality of comments provided in class.

To successfully pass the course, a student's final grade count must meet or exceed 5.5. Importantly, a student must also collect at least 5.5 on the individual exam to pass the course.

Preliminary grades will be posted at SIN-online and official final grades are posted at Osiris: <http://osirisstudent.eur.nl>

The date, time and place of the perusal will be announced when the final grades are published.

Group assignment:

During the course, students will be asked to work on a group assignment in self-selected groups of five students. Students can register with their group through Canvas. Groups need to be registered before the second lecture. All group members are expected to contribute equally to the assignment (any obvious free-riding by some students will be sanctioned).

The group assignment consists of pitching a new venture idea linked to blockchain. Each group will present their venture idea during the last day of classes. The deliverable is an 8-page financial prospectus, which has to be handed in by the Monday preceding the last day of classes.

More details on the group assignment will be posted on Canvas and discussed in the first lecture.

Plagiarism:

Students should be aware that all assignments are automatically checked for plagiarism. Any form of plagiarism implies failure of the course and will be reported to the exam board, which decides on further measures. Students in each group are jointly responsible for plagiarism. For more information about cheating and plagiarism, visit the dedicated webpage.

Communication:

All information about the course will be communicated through Canvas. Please check regularly for announcements. The slides will be made available right after each class.

Depending on the question, please use one of the following communication modes:

- For questions about personal circumstances/situations that may hamper your work should be directed to the student advisor.
- For practical questions about procedures, materials, or assignment first consult your fellow students. If they don't know the answer, ask it in class.
- For questions about course content first consult your fellow students. If they don't know the answer, ask it in class or send me an email. There is also always a possibility to visit me by appointment.

Course schedule:

Date	Time	Module	Topic	Material
Tue 23 Mar	13:00 – 13:45	1. Introduction to Fintech	Introduction to Fintech	Frost (2020)
Tue 23 Mar	14:00 – 14:45	1. Introduction to Fintech	Entrepreneurial Project: Guest lecture by Igor Mikhalev (BCG Platinion)	
Thu 25 Mar	11:00 – 12:00	1. Introduction to Fintech	Design Thinking and Fintech: Guest lecture by Daniel Liebau (Lightbulb Capital)	
Thu 25 Mar	13:00 – 14:00	2. Bitcoin and Blockchain	Monetary Theory and Bitcoin	Schär & Berentsen (2020) (chapters 1 & 2)
Tue 6 Apr	Cf. Canvas	2. Bitcoin and Blockchain	Technical Analysis	Schär & Berentsen (chapters 3 & 5)
Thu 8 Apr	13:00 – 14:30	2. Bitcoin and Blockchain	Bitcoin's Challenges Smart Contracting	Schär & Berentsen (chapters 6 & 7.4)
Tue 13 Apr	12:00 – 13:30	3. Raising Capital	Crowdfunding	Mollick (2014)
Thu 15 Apr	13:00 – 14:30	3. Raising Capital	Token Offering	Bourveau <i>et al.</i> (2019) Teaching note on STOs
Tue 20 Apr	11:00 – 12:30	4. Investing	Robo-advising and social trading: Guest lecture by Daniel Liebau (Lightbulb Capital)	D'Acunto <i>et al.</i> (2019)
Thu 22 Apr	13:00 – 15:00	5. Lending	P2P lending Banks and the FinTech Movement	Berg <i>et al.</i> (2020)
Thu 29 Apr	13:00 – 14:30	6. Topics	Mobile Money Central Bank Digital Currency Decentralized Finance	Suri (2017) Schär & Berentsen (chapter 6.1.5)
Tue 4 May	12:00 – 13:30	TBC	TBC	
Thu 6 May	13:00 – 17:00	Class Presentations	Entrepreneurial Project	
Fri 14 May	13:30 – 16:30	Un-proctored online exam		
Wed 30 Jun	13:30 – 16:30	Un-proctored online resit		

Assessment Matrix

BMME028: FinTech	Assessment formats			
Educational goals	Group assignment	In-class performance	Online Exam	Total
After following this course, the student is able to:				
Describe what FinTech is and why it emerged.		X	X	X
Explain both fundamentals and economics of the following FinTech: bitcoin and blockchain, crowdfunding, utility and security tokens, robo-advising, social trading, marketplace lending, mobile money, and central bank digital currency.		X	X	X
Analyze the potential and limitations of these FinTech (and their applications).		X	X	X
Assess a FinTech business model.		X		X
Develop a new venture idea linked to blockchain.	X			X
Weighting	40%	10%	50%	100%
Minimum grade required	N/A	N/A	5.5	
Opportunity to resit within the academic year	No	No	Yes	
Form of examination			Open-book	
Group/individual assessment	Group	Individual	Individual	

More information on the program learning goals, please refer to the EUR RSM programmes information dossier for NVAO at:

<https://courses.eur.nl/#/2020-2021/detail/BMME028>