

MBA – Focusing on Entrepreneurship, Innovation & Technology Management

Syllabus

FinTech - Disruptive Technologies and Current Trends

980770

Mini 6 2025/2026
Bloomfield 424
Thursday 18:00-21:30

Degree: 2nd degree (Master)
Teaching Language: English / Hebrew
Teaching Staff: Haim Pinto
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Office Hours: By appointment

Course/Module description:

The course will expose the students to the innovative disruptors that are changing the face of financial services globally. The course will tackle the multiple aspect of disruption, starting with the changes in human behavior and needs through the regulatory landscape and all the way to the technical innovation that is driving the new age of financial services. We will also discuss how Big-Tech is influencing financial services and why customers are shifting their trust from traditional banks to new players in the financial ecosystem. Some of the topics will include a view into blockchain technology, Cryptocurrencies, Artificial intelligence Machine learning and more.

Course/Module aims:

Students will be acquiring tools to better understand the changing financial services sector and navigate through the different disruption trends that are shaping the new economy. We will focus on the technical aspects of the disruptive trends, analyzing the impact of distributed ledgers (such as blockchain), Cryptocurrencies, ICO's (Initial Coin Offering), the influence of Artificial Intelligence (AI), and the impact of the data revolution on the banking industry.

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Learning outcomes - On successful completion of this module, students should be able to:

1. Define how fintech is changing the financial services landscape
2. understand blockchain basics
3. Understand how AI is changing the financial world.
4. Understand the shift in the role of legacy financial services firms
5. Explain the new threats / opportunities in the global financial services market

Attendance requirements (%): 80%

Teaching arrangement and method of instruction: Frontal lectures, Virtual Lectures

Course/Module Content:

1. Introduction to FinTech
 - a. The rise of the fintech industry and how financial services were prime for disruption
 - b. The Flavors of Fintech – the approach to technology driven disruption (payments, issuing, lending, BaaS, orchestration, data/AI)
 - c. Platform economics; where incumbents win/lose.
 - d. The “AI shock” to finance: agentic workflows, model risk, and productivity.
 - e. The blockchain promise- and the crypto industry - Decentralized financial platforms
2. Digital Transformation in financial services
 - a. How did the digital industry influence financial services?
 - b. How digital platforms are shaping the financial habits of the modern age
 - c. AI driven digital financial manipulation
 - d. Digital Vs in person financial service
3. Innovation and change
 - a. Driving change in highly regulated organizations
 - b. Managing the balance between digitization and cyber defense and privacy regulation
 - c. Building fraud resistant platforms in the AI infused digital age
 - d. Implications of digitizing a service and automating processes to the end users
4. AI, machine learning and data driven insights in financial services
 - a. Big Tech influences
 - b. De-anonymize data for financial gain
 - c. Privacy, Regulation and innovation
 - d. Ethics in building autonomous systems – can an LLM manage your financial life

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5. Banking architecture
 - a. The differences between legacy banking systems and the modern Neo-banks
 - b. Monolithic design Vs modern applications
 - c. How did banks evolve their technology?
 - d. The challenge of open banking – the reinvention of financial services through embedded banking

6. Cloud services in the financial services sector
 - a. Transforming financial services through SaaS, PaaS, IaaS
 - b. Building embedded financing platforms
 - c. Omni Channel technology and the financial customer journey

7. The future of financial services
 - a. The shift in financial models and revenue generation
 - b. Financial experience redefined
 - c. AI driven economy
 - d. Open and integrated financial ecosystems
 - e. How will our lives change – open discussion

Course/Module evaluation:

Class project 80 %

Assignments 20%

References and Suggestions for Further Reading

Reading Materials	Source
IMF - Fintech and Financial Services: Initial Considerations	https://bit.ly/2MrYYMi
Bitcoin and Cryptocurrency Technologies (a.k.a. the “Princeton Bitcoin book”) (2016)	https://bitcoinbook.cs.princeton.edu/
Unicredit: Blockchain Technology and Applications from a Financial Perspective Technical Report Version 1.0 Data & Analytics February 26, 2016	https://bit.ly/2PUm9AS
Provost, F., & Fawcett, T. (2013). Data Science for Business: What you need to know about data mining and data-analytic thinking. " O'Reilly Media, Inc."	

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“Introduction to Predictive Modeling: From Correlation to Supervised Segmentation”, Provost and Fawcett, Data Science for Business, Chapter 3.	
“Overfitting and its Avoidance”, Provost and Fawcett, Data Science for Business, Chapter 5.	
Provost and Fawcett, Data Science for Business, Chapter 8, Visualizing Model Performance	
Roger Stein: Your future financial adviser could be a robot - video from 2017	https://www.youtube.com/watch?v=ZwO7Bfg_rKLQ
I. Dhar, V. and Stein R. M. (2017) “Economic and Business Dimensions on FinTech Platforms and Strategy.”, Communications of the ACM, 60, 10, October, pp. 32-35.	http://www.rogermstein.com/wp-content/uploads/p32-dhar.pdf
Satoshi Nakamoto, 2008, “Bitcoin: A Peer-to-Peer Electronic Cash System,”	https://bitcoin.org/bitcoin.pdf
Dhar, V. and R. M. Stein, (2017) “Your future financial adviser could be a robot. “(OpEd), MarketWatch: The Wall Street Journal Digital Network. March 13.	https://www.marketwatch.com/story/your-future-financial-adviser-could-be-a-robot-2017-03-13