



## Course Syllabus

<b>Course Code</b>	<b>Course Title</b>	<b>ECTS Credits</b>
BLOC-526DL	Emerging Topics in FinTech	10
<b>Prerequisites</b>	<b>Department</b>	<b>Semester</b>
BLOC-511DL	Digital Innovation	Fall/Spring
<b>Type of Course</b>	<b>Field</b>	<b>Language of Instruction</b>
Elective	Fintech	English
<b>Level of Course</b>	<b>Lecturer(s)</b>	<b>Year of Study</b>
2 <sup>nd</sup> Cycle	Dr. Periklis Thivaivos	2 <sup>nd</sup>
<b>Mode of Delivery</b>	<b>Work Placement</b>	<b>Corequisites</b>
Distance Learning	N/A	N/A

### Course Objectives:

This course aims to provide a critical understanding of fintech and disruption in the context of banking and insurance. It will cover the theoretical and practical underpinnings of fintech developments in the fields of credit, underwriting, digital currencies, and payments utilising case studies of successful and unsuccessful firms. The course will also focus on the practical applications of machine learning techniques to fintech use cases such as credit risk and insurance fraud assessment.

Students should note that this course is intentionally steering clear of blockchain, in order to extend students' perspectives beyond the focus of other courses.

### Learning Outcomes:

After completion of the course students are expected to be able to:

- Understand the theoretical underpinnings of disruption and the means by which theory applies to fintech
- Develop a solid overview of fintech developments in the banking and insurance sector
- Critically understand the developments around digital currencies and cryptos and how they apply to the world of fintech
- Understand open banking (in the context of the EU's PSD 2 directive) and the potential for open innovation
- Develop an understanding of machine learning techniques and their practical application to fintech

- Critically assess the extent to which fintech has disrupted the financial system, the potential for future disruption and its limitations

**Course Content:****Main Topic/Thematic Areas**

- Introduction to fintech, innovation & disruption
  - o A brief history of fintech and overview of recent developments
  - o Theoretical underpinnings of disruption (from the Austrian School of Economics to today)
  - o Distinguishing between disruption, innovation and novelty
- Fintech applications in banking and insurance
  - o Understanding banking and insurance business models and scope of disruption
  - o Developments in banking tech and insurtech, including potential future scenarios
- Digital money and cryptos for fintechs
  - o History of monetary evolution and definitions
  - o Introduction to monetary theory
  - o The role of Central Banks in the monetary world
  - o Central Bank issued Digital Currencies and cryptos
- Payments and open banking
  - o Introduction to digital payments
  - o The EU's PSD II: background and implications
  - o Opportunities from open banking for fintechs
- Introduction to Machine Learning and Artificial Intelligence for fintech applications (credit modelling, fraud forecasting)
  - o Non-technical introduction to machine learning

**Learning Activities and Teaching Methods:**

Teaching material including PowerPoint presentations with extended descriptions and explanations, asynchronous video presentations, additional readings (journal articles and ebooks), access to additional videos and commercials related to the course, synchronous meetings (Engageli), forums, chats, quizzes, interactive exercises, case studies and other formative and summative assessments.

### Assessment Methods:

#### Formative Interactive Assessments

- Interactive activities, such as multiple choice quizzes and assignments, to reinforce students' learning experience and engagement with the course. These activities are graded and, collectively, count for 40% of the students' final grade.
- Multiple choice quizzes contribute 20% towards the final grade
- Assessment 1 contributes 10% towards the final grade
- Assessment 2 contributes 10% towards the final grade

#### Summative Assessments

- Final exam, after session 12, corresponding to 60% of the total mark. A minimum score of 60% is required to successfully complete the course.

### Required Textbooks / Readings:

Title	Author(s)	Publisher	Year	ISBN
"The evolution of fintech: a new post crisis paradigm?",	Arner et al		2016	
Georgetown Journal of International Law, 47, 4, pp 1271-1319				

### Recommended Textbooks / Readings:

Title	Author(s)	Publisher	Year	ISBN
Banking is not an industry, nor a business model,			2016	

Banks' maturity transformation: risk, reward and policy	Bologna P	European Systemic Risk Board	2018	
The relegated bank – a positive scenario?	Thivaos P	Fintech Futures	2018	
The evolution of fintech: a new post crisis paradigm? 47, 4, pp 1271-1319	Arner et al	Georgetown Journal of International Law	2016	
The continuing muddles of monetary theory: a steadfast refusal to face facts pp 821-830	Goodhart C	Economica, 76	2006	
Money creation in the modern economy	Bank of England Quarterly Bulletin, Q1	Bank of England	2014	