

ECON 5040 (L1): Economics of Financial Technology (2 units)

HKUST Department of Economics

2026 – 27 Fall Term

Instructor: Eric NG Email: ecyng@ust.hk Office: LSK 6016D Office hours: by appointment Teaching Assistant: Hanjing KUANG Email: kuanghanjing@ust.hk Office: LSK 6066 Office hours: by appointment	Dates: 30-OCT – 18-DEC Lecture: Fri: 14:00 – 17:20 Room: LSK G003 Course website: https://canvas.ust.hk
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Description

This course applies economic concepts and quantitative methods to study the microeconomic and macroeconomic implications of FinTech. On the microeconomic aspect, it analyzes the demand and supply drivers of Fintech, economic incentives and determinants of FinTech adoption and formation, and the implications of FinTech for the incumbent financial industry. From the macroeconomic perspective, it addresses the implications of FinTech on economic growth, central banking, monetary policy, and financial stability. The course highlights the importance of promoting FinTech development and simultaneously ensuring financial stability.

Prerequisite

Undergraduate training in introductory microeconomics, macroeconomics, and econometrics is expected.

Course Intended Learning Outcomes (CILOs) and Mapped PILOs

Upon successful completion of this course, students will be able to:

1. Analyze the economic driving forces for FinTech adoption and formation (PILO 4, 10, 12)
2. Apply the concepts of information economics to analyze FinTech market (PILO 4, 10, 12)
3. Conduct risk-benefit analysis on financial stability implications of FinTech (PILO 5, 10, 12)
4. Address the implications of FinTech for financial industry, economic growth, central banking, and monetary policy (PILO 4, 5, 10, 12)

Assessment Scheme

Assessment Tasks	Contribution to Final Grade (%)	Due/Exam Dates
Projects (Group)*	60% (Project 1: 20%, Project 2: 20%, Project 3: 20%)	Project 1: 14 Nov, Project 2: 28 Nov Project 3: 12 Dec
Final Exam (Individual)	40%	18 Dec

*Please form your group of 6 members on CANVAS course page by Nov 3: navigate to the course page and click People on the left-hand course menu. Then click the Groups tab, find the group you want to join, and click Join.

Mapping of Course ILOs to Assessment Tasks

Assessed Task	Mapped CILOs	Explanation
Projects	CILOs 1, 2, 3, 4	The projects assess students' ability to apply the FinTech economics concepts to conduct economic and risk-benefit analysis on FinTech products/services.
Exam	CILOs 1, 2, 3, 4	The exam assesses students' understanding of the FinTech economics concepts discussed in the lectures.

Learning Resources

There is no required textbook. Lecture slides and selected articles are downloadable from the CANVAS course page (<https://canvas.ust.hk>) under the Files section. For your easy reference, the topic of each lecture slide file is assigned a chapter number. There are 15 chapters in total.

Course Outline

1. Introduction to FinTech (Week 1)
2. Economic Forces Driving FinTech Adoption (Week 1)
3. Supply and Demand Analysis of FinTech (Week 1)
4. Economics of Crowdfunding (Week 2)
5. Determinants of FinTech Formation (Week 2)
6. Impacts of FinTech on Financial Services (Week 3)
7. FinTech and Economic Growth (Week 3)
8. FinTech and Financial Stability (Weeks 4)
9. FinTech Credit and Financial Stability (Week 5)
10. Monetary Policy Implications of FinTech (Week 5)
11. Introduction to Business Cycles and DSGE Models (Week 6)
12. Virtual Currencies (Week 6)
13. DSGE Model with Cryptocurrency (Week 6)
14. Central Bank Digital Currency (Week 7)
15. DSGE Model with Central Bank Digital Currency (Week 7)

AI Usage Policy

The use of Generative AI is encouraged for self-learning only but not permitted for doing the assessment tasks including the group projects and exam.

Final Grade Rubrics

Grade	Short Description	Elaboration
A range	Excellent Performance	Demonstrate a deep understanding of the FinTech economics concepts covered in the course. Exhibits exceptional skills in utilizing them to analyse the economic and financial implications of FinTech. Excels in the exam and projects.
B range (B+, B)	Good Performance	Shows a solid grasp of the FinTech economics concepts covered in the course. Demonstrates good skills in utilizing them to analyse the economic and financial implications of FinTech. Performs well in the exam and projects.
B-, C+, C	Marginal Performance	Demonstrate a basic understanding of the FinTech economics concepts covered in the course. Demonstrates limited skills in utilizing them to analyse the economic and financial implications of FinTech. Performs fairly in the exam and projects.
F	Fail	Students display a lack of understanding of the course materials, inadequate application of concepts, and unsuccessful completion of exam and projects.

Exam Policy

There is no make-up final exam for any reasons other than acute medical illness or unexpected family emergencies. Under such circumstances, students should seek approval of exam absence from the instructor before the final exam and provide medical certificates or other legitimate documents to justify the absence of final exam. Absence from final exam without prior approval of absence and valid documentary proof would result in zero score. The make-up exam, if arranged, will be scheduled as soon as possible within 5 business days after the original final exam date.

Academic Integrity

Students are expected to uphold HKUST's Academic Honor Code and to maintain the highest standards of academic integrity. The University has zero tolerance of academic misconduct. Please refer to [Academic Integrity | HKUST - Academic Registry](#) for the University's definition of plagiarism and ways to avoid cheating and plagiarism.