

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

HKUST Department of Economics

2025 – 26 Fall Term

Instructor: C-Y (Eric) NG Email: ecyng@ust.hk Office: LSK 6016D Office hours: by appointment Teaching Assistant: Victor Yip Email: victory@ust.hk Office: LSK 6066 Office hours: by appointment	Dates: 31-OCT-2025 - 19-DEC-2025 Lecture: Fri: 2:00PM - 05:20PM Room: LSK G001 Course website: https://canvas.ust.hk
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Description

This course applies economic concepts and quantitative methods to analyze the economic and financial implications of Fintech. It analyzes the demand and supply drivers of Fintech, economic incentives and determinants of Fintech adoption and formation, the implications of Fintech for the incumbent financial industry, central banking, economic growth, monetary policy, and financial stability. The course highlights the importance of promoting Fintech development and simultaneously ensuring the 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 driving forces for Fintech adoption and formation (PILO 4, 10, 12);
2. Address the implications of Fintech on the financial industry (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 economic growth, central banking, and monetary policy (PILO 5, 10, 12).

Assessment Scheme

Assessment Tasks	Contribution to Final Grade (%)	Due Dates
Group Project: Paper*	35%	<u>Dec 11</u>
Group Project: Presentation*	20%	In-class presentation on <u>Dec 12</u>
In-class Exam (Individual)	45%	In-class exam on <u>Dec 19</u>

*You need to form a group of 6 members. Please email your group information (with student names and numbers) to me by Nov 3 (the last add/drop date). Please refer to the file “**Group Project on Fintech Analysis**” (on CANVAS course website: Files/Group Project) for project requirements.

Mapping of Course ILOs to Assessment Tasks

Assessed Task	Mapped CILOs	Explanation
Exam	CILOs 1, 2, 3, 4	The exam assesses students' understanding of the Fintech economics concepts discussed in the lectures.
Project	CILOs 1, 2, 3	The project assesses students' ability to apply the Fintech economics concepts to conduct economic and risk-benefit analysis on a Fintech sector.

Learning Resources

Lecture slides and selected articles are downloadable from the course's CANVAS course website (<https://canvas.ust.hk>). The course materials rely on various sources, including books, academic articles, and policy papers. A full list of references is available in the CANVAS course website.

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 project.
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 project.
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 project.
F	Fail	Students display a lack of understanding of the course materials, inadequate application of concepts, and unsuccessful completion of exam and project.

Course Outline

1. Introduction (Week 1)
 - Fintech Services by Sector
 - Microeconomic and Macroeconomic Implications of Fintech
2. Determinants of Fintech Adoption and Formation (Weeks 1-3)
 - Economic Forces Driving Fintech Adoption
 - Supply and Demand Analysis of Fintech
 - Economics of Crowdfunding
 - Economic and Technological Determinants
3. Economic and Financial Implications of Fintech (Weeks 3-4)
 - Impacts on Household Saving
 - Implications for Incumbent Financial Institutions
 - Impacts on Economic Growth
 - Implications to Central Banking and Monetary Policy
4. Fintech and Financial Stability (Weeks 4-5)
 - Benefits and Risks of Fintech for Financial Stability
 - Policy Implications of Financial Stability
 - Fintech Credit and Financial Stability
5. Macroeconomic and Financial Stability Implications of Digital Currencies (Week 6)
 - Private Digital Currencies (Cryptocurrencies)
 - Central Bank Digital Currencies

Course AI Policy

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

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.

ECON 5040 (L2): Economics of Financial Technology (2 units)

HKUST Department of Economics

2025 – 26 Fall Term

Instructor: C-Y (Eric) NG Email: ecyng@ust.hk Office: LSK 6016D Office hours: by appointment Teaching Assistant: Victor Yip Email: victory@ust.hk Office: LSK 6066 Office hours: by appointment	Dates: 31-OCT-2025 - 19-DEC-2025 Lecture: Fri: 6:30PM - 09:50PM Room: LSK 1007 Course website: https://canvas.ust.hk
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Description

This course applies economic concepts and quantitative methods to analyze the economic and financial implications of Fintech. It analyzes the demand and supply drivers of Fintech, economic incentives and determinants of Fintech adoption and formation, the implications of Fintech for the incumbent financial industry, central banking, economic growth, monetary policy, and financial stability. The course highlights the importance of promoting Fintech development and simultaneously ensuring the 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:

5. Analyze the driving forces for Fintech adoption and formation (PILO 4, 10, 12);
6. Address the implications of Fintech on the financial services sector (PILO 4, 10, 12);
7. Conduct risk-benefit analysis on financial stability implications of Fintech (PILO 5, 10, 12);
8. Address the implications of Fintech for economic growth, central banking, and monetary policy (PILO 5, 10, 12).

Assessment Scheme

Assessment Tasks	Contribution to Final Grade (%)	Due Date
Group Project: Paper*	35%	<u>Dec 11</u>
Group Project: Presentation*	20%	In-class presentation on <u>Dec 12</u>
In-class Exam (Individual)	45%	In-class exam on <u>Dec 19</u>

*You need to form a group of 6 members. Please email your group information (with student names and numbers) to me by Nov 3 (the last add/drop date). Please refer to the file “**Group Project on Fintech Analysis**” (on CANVAS course website: Files/Group Project) for project requirements.

Mapping of Course ILOs to Assessment Tasks

Assessed Task	Mapped CILOs	Explanation
Exam	CILOs 1, 2, 3, 4	The exam assesses students' understanding of the Fintech economics concepts discussed in the lectures.
Project	CILOs 1, 2, 3	The project assesses students' ability to apply the Fintech economics concepts to conduct economic and risk-benefit analysis on a Fintech sector.

Learning Resources

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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 project.
F	Fail	Students display a lack of understanding of the course materials, inadequate application of concepts, and unsuccessful completion of exam and project.

Course Outline

6. Introduction (Week 1)
 - Fintech Services by Sector
 - Microeconomic and Macroeconomic Implications of Fintech
7. Determinants of Fintech Adoption and Formation (Weeks 1-3)
 - Economic Forces Driving Fintech Adoption
 - Supply and Demand Analysis of Fintech
 - Economics of Crowdfunding
 - Economic and Technological Determinants
8. Economic and Financial Implications of Fintech (Weeks 3-4)
 - Impacts on Household Saving
 - Implications for Incumbent Financial Institutions
 - Impacts on Economic Growth
 - Implications to Central Banking and Monetary Policy
9. Fintech and Financial Stability (Weeks 4-5)
 - Benefits and Risks of Fintech for Financial Stability
 - Policy Implications of Financial Stability
 - Fintech Credit and Financial Stability
10. Macroeconomic and Financial Stability Implications of Digital Currencies (Week 6)
 - Private Digital Currencies (Cryptocurrencies)
 - Central Bank Digital Currencies

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