

The Chinese University of Hong Kong, Term 1, 2024/25

ECON3570: Information Technology and Economy

資訊科技及經濟

Note: This syllabus is provisional and may be subject to change.

Course Description: The ever-evolving information technology has been reforming the economy in an unprecedented way. It brings along new business models, increasing varieties of goods, widespread availability of free services, and the ever-growing importance of intangible assets. The course discusses fundamental concepts and practical applications of information technology and the digital economy, especially issues related to its role, cost, and benefit. It aims to blend the economic theory with the real-world business evidence.

Prerequisites: Microeconomics. Not for students who have taken UGEB2580.

Instructor: Dr. Xiaohan Yang (Room 1014 Esther Lee Building). Office hours by appointment.
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Teaching Assistant: TBA

Class schedule:

Course Code	Course Title	Periods	Location
ECON3570	Information Technology and Economy	Tue 8:30am – 10:15am	HYS (Hui Yeung Shing Building) G05
		Thu 12:30pm – 1:15pm	ELB (Esther Lee Building) 401

Lectures: Tu: 9/3, 9/10, 9/17, 9/24; 10/8, 10/15, 10/22, 10/29, 11/5, 11/12, 11/19, 11/26

Th: 9/5, 9/12, 9/19, 9/26, 10/3, 10/10, 10/17, 10/24, 10/31, 11/7, 11/14, 11/21, 11/28

There will be non-compulsory tutorial sessions throughout the term to help you do assignments and exams.

Mid Exam: In-class.

Final Exam: To be arranged by the University.

Course materials: The class will follow a variety of readings, including papers, newspaper articles, and book chapters. Students are expected to do the readings before the class. A reading list will be posted and updated prior to the lecture.

Recommended reference books:

Shapiro, Carl and Hal Varian, *Information Rules: A Strategic Guide to the Network Economy*, Harvard Business School Press, 1999.

The exam will mostly be based on the course notes and required readings.

Course notes, readings, other course materials, and notifications will be posted on Blackboard. Please check it and your email regularly. The material from the class is not to be shared with anyone outside the class. In particular, you should not upload any material to the Internet.

Recording is not allowed during the course. Please adhere to classroom discipline.

Academic Honesty Statement: No plagiarism! No cheating! No exceptions!

Attention is drawn to University policy and regulations on honesty in academic work, and to the disciplinary guidelines and procedures applicable to breaches of such policy and regulations. Details may be found at <http://www.cuhk.edu.hk/policy/academichonesty/>. With each assignment, students will be required to submit a statement that they are aware of these policies, regulations, guidelines and procedures.

Assessment:

- Assignments (30%): There will be 3-4 assignments, including essays or reports. Students are required to finish them independently. Assignments will be posted on Blackboard. No late assignments will be graded, regardless of the reason.
- Mid exam (30%): There will be an in-class mid-term exam to be announced.
- Final exam (40%): The university will arrange a comprehensive offline final exam, which accounts for 40% of the total grade. The exam is designed to evaluate the student's understanding of the key concepts discussed in the course.
- Class participation: Class participation is mandatory. Attending less than 15 classes will result in a 10-percentage point reduction in final score.

Grade Descriptor:

A / A-	Outstanding/Generally outstanding performance on all learning outcomes.
B+ / B / B-	Substantial performance on all learning outcomes, OR high performance on some learning outcomes which compensates for less satisfactory performance on others, resulting in overall substantial performance.
C+ / C / C-	Satisfactory performance on the majority of learning outcomes, possibly with a few weaknesses.
D+ / D	Barely satisfactory performance on a number of learning outcomes
F	Unsatisfactory performance on a number of learning outcomes, OR failure to meet specified assessment requirements.

Lecture Outlines (tentative; changes will be announced as early as possible):**PRELIMINARIES**

- Overview and Introduction (1 week)

Part1: Market Structure and Pricing**(a) Pricing and Competition**

- Pricing Information (1 week)
- Pricing Models (1-2 weeks)
- Consumer Demand (1 week)
- Price Discrimination and Bundling (1 week, depending on time)

(b) Platforms

- Network Externalities (1-2 weeks)
- Two-sided Platforms (1 week)
- Switching Cost and Lock-in (1 week)

Part2: Macro Perspective

- Measuring the Digital Economy (1 week)
- Technology Adoption (1 week)
- Big data and Privacy (1 week)

Part3: Individual Markets

- E-commerce (1 week)
- Gig Economy and Entrepreneurship (1 week)
- AI and Labor Market (1 week, depending on time)
- Digital Finance (1 week, depending on time)