



ISOM 2010 – Introduction to Information Systems

Fall 2024

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Office hours by appointment through email

(All emails should start with “ISOM2010” in the subject. Failure to do so may result in a longer response time.)

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COURSE OVERVIEW

In today's fast-paced and interconnected world, technology has transformed the way businesses operate, compete, and succeed. The role of Information Systems (IS) has evolved from a behind-the-scenes support function to a strategic enabler of business growth and innovation. This course introduces fundamental concepts and technologies of IS, highlighting its critical role in shaping the modern business landscape. An array of real-world applications and a series of emerging trends will be discussed.

Upon completing this course, you will be able to:

- Understand the fundamental concepts and technologies of IS;
- Analyze the role of IS in supporting business strategy and operations;
- Identify opportunities for IT-enabled innovation and entrepreneurship;
- Develop skills in data analysis, decision-making, and problem-solving using IS tools;
- Appreciate the ethical, social, and environmental implications of IS deployments.

CONTENTS & SCHEDULE (tentative*)

Week	Date	Lecture	Topic	Checkpoint
1	2-Sep	1	Course Overview	
	4-Sep	2	IT Infrastructure: hardware and software	
2	9-Sep	3	Digital Economy (I)	
	11-Sep	4	Digital Economy (II)	
3	16-Sep	5	E-Commerce (I)	
	18-Sep		<i>Public Holiday</i>	
4	23-Sep	6	E-commerce (II)	Due: Group list
	25-Sep	7	Online Platforms (I)	
5	30-Sep	8	Online Platforms (II)	
	2-Oct	9	Business Analytics	
6	7-Oct	10	BigData Analytics (I)	
	9-Oct	11	BigData Analytics (II)	
7	14-Oct		<i>Industry Week</i>	Due: Project proposal
	16-Oct			
8	21-Oct		Midterm Exam (In-class)	Group consultations with instructor
	23-Oct	12	Emerging Tech Series ---- Generative AI	
9	28-Oct	13	Emerging Tech Series ---- FinTech	
	30-Oct	14	Emerging Tech Series ---- Block Chain	
10	4-Nov	15	Emerging Tech Series ---- Cloud Computing	
	6-Nov	16	Emerging Tech Series ---- Internet of Things	
11	11-Nov	17	Emerging Tech Series ---- Cybersecurity and Data Privacy	
	13-Nov		Project Presentation (I)	
12	18-Nov		Project Presentation (II)	
	20-Nov		Project Presentation (III)	
13	25-Nov	18	Business Landscape and Outlook	
	27-Nov	19	Final Exam Review	Due: Project written report

*The schedule is tentative and subject to change. Please always follow Canvas announcements for latest update.

REFERENCE MATERIALS

Classes will include a mixture of readings, videos, lectures, and presentations. There is **no required textbook** for this course. Additional reference materials can be accessed through the course website on Canvas.

Optional Readings

Laudon, K. C., & Laudon, J. P. (2017). *Essentials of management information systems*. Pearson Educación. 12th edition.

Laudon, K. C., & Laudon, J. P. (2021). *Management information systems: Managing the digital firm*. Pearson Educación. 17th edition.

Brynjolfsson, E., & McAfee, A. (2014). *The second machine age: Work, progress, and prosperity in a time of brilliant technologies*. WW Norton & Company.

McAfee, A., & Brynjolfsson, E. (2017). *Machine, platform, crowd: Harnessing our digital future*. WW Norton & Company.

GRADING POLICY

Participation	15%
Labs	15%
Midterm Exam	25%
Group Project	25%
Final Exam	20%

Participation (15%)

We do NOT take attendance, but value highly the in-class participation. Active participation is a crucial aspect of the learning experience in this course. It not only enhances your understanding of the subject matter but also encourages the exchange of diverse ideas and perspectives, creating a rich learning environment for everyone. There are three channels for you to earn the scores:

- In-class engagement by either raising or answering to questions during the lecture.
- Industry-week engagement by attending and reflecting on the invited speakers' talks.
- Prepared sharing of any relevant materials you find interesting to the class, be it a news story, business event, latest technology, in the form of an article piece, YouTube video, product demo or else. Email the details (the material, a short description of why you want to share, what is interesting, what are your thoughts) to the course instructor at least two days prior to the lecture. Depending on the supply, we will dedicate up to 10 minutes each lecture for this sharing activity.

Each channel can give you a maximum of 6 points, with the aggregate no more than 15. Please note that after-class email correspondences are highly welcomed but NOT counted towards the grade.

Labs (15%)

Separate lab sessions of 50 minutes each are arranged to cover basic to advanced technical skills, such as web analytics, business analytics with Excel, database management, big data analytics among other interesting topics. These lab sessions are dedicated to enriching your hands-on experience and improving your essential analytical skills.

In almost every lab session, there is a task you need to complete ON SITE. You MUST attend the lab session to which you are assigned; lab instructors will ask unregistered students to leave. Note that you will NOT get credit for work done during a session for which you are not registered. For attendance and any lab-related inquiry, please contact your lab instructors as the lab part is independent of the lectures.

Group project (25%)

Welcome to your first group project in college! The purpose of this project is to apply your understanding of information technologies to a real-world business challenge, fostering your creativity and problem-solving skills. In fast-paced environment, it is crucial to recognize how technology can be leveraged to gain a competitive advantage and drive innovation.

For this project, your group (4~5 members) will imagine yourselves as consultants hired by a small to medium-sized business facing a specific challenge or seeking to improve a particular area of their operations. Your task is to develop a comprehensive business plan that innovatively utilizes information technologies to address the chosen business problem.

A complete project should consist of the following aspects.

- Identify a Business Problem: Work with your group to select a specific business challenge or area of improvement for a small to medium-sized enterprise (SME). Examples may include improving customer relationship management, optimizing supply chain processes, enhancing data security, or developing a more efficient marketing strategy.
- Research and Analyze: Conduct thorough research on the chosen problem, including industry trends, competitor strategies, and potential technological solutions. Analyze the current processes and systems in place within the SME and identify pain points that can be addressed through information technologies.
- Propose Innovative Solutions: Based on your research and analysis, propose innovative information technology solutions that can transform the SME's operations. This could involve suggesting new software or hardware implementations, process

automation, data analytics strategies, or the development of a customized application. Think outside the box and consider emerging technologies such as artificial intelligence, blockchain, or the Internet of Things (IoT).

Group Project deliverables:

1. In-class presentation (60% of group project grade)

Each group will present their business plan to the class for 12 minutes, showcasing their chosen business problem, proposed solution, and expected outcomes. The grade is composed of evaluation from the instructor, your classmates and your groupmates.

2. Written report (40% of group project grade)

Based on the feedbacks obtained from the presentation, each group will further improve their business plan and formalize a written report with a maximum of 10 pages including figures, tables, references, if any.

Mid-term (25%) & Final (20%) Exam

These are major checkpoints to ensure that you understand the key concepts and principles. The mid-term exam will cover Digital Economy, E-Commerce, and Online Platform, whereas the final exam will cover all other topics we have introduced in this course. Review sessions will be scheduled to help you prepare for these exams. In general, these exams are non-technical in nature.

There is no make-up exam for the mid-term. If you miss the midterm exam for an extreme emergency, you can have the final exam grade count for both the missed midterm and the final. That one exam will thus constitute a greater portion of your course grade. This extreme emergency must be approved by the instructor before the exam date, and counting one exam twice is not a good idea!

POLICY - Use of Generative AI

We expect that all work you submit for this course will be your own. You may not submit any work that is written, in whole or in part, by ChatGPT or any other generative artificial intelligence (GAI) tools. To the extent that such tools inform/influence your thinking when completing an assignment, that use must be appropriately acknowledged and cited. It is your responsibility to assess the validity and applicability of any GAI output that is referenced in this way. Violations of this policy will be considered academic misconduct. We draw your attention to the fact that different classes at HKUST could implement different AI policies, and it is your responsibility to conform to expectations for each course.

POLICY - Academic Integrity

Academic integrity entails absolute honesty in one's intellectual efforts. HKUST places a strong emphasis on academic integrity and has introduced new regulations to back this up.

Special attention will be put on academic integrity demonstrated when you take this course. You should be especially aware of the policies on cheating and plagiarism. Cheating is any action that violates University norms or an instructor's guidelines for the preparation and submission of assignments. Such actions may include using or providing unauthorized assistance or materials on course assignments or possessing unauthorized materials during an examination. Plagiarism involves the representation of another's work as your own, for example: (a) submitting as one's own any material that is copied from published or unpublished sources such as the Internet, print, computer files, audio disks, video programs or musical scores without proper acknowledgment that it is someone else's; (b) paraphrasing another's views, opinions or insights without proper acknowledgment or copying of any source in whole or in part with only minor changes in wording or syntax even with acknowledgment; (c) submitting as one's own work a report, examination, paper, computer file, lab report or other assignments which has been prepared by someone else. If you are unsure about what constitutes unauthorized help on an exam or assignment, or what information requires citation and/or attribution, please ask your professor. **Violations may result in the failure of the assignment, failure of the course, and/or additional disciplinary actions.** For more information, please visit the following websites: <http://ugadmin.ust.hk/integrity/student-1.html>.

POLICY - Course Content Access and Appropriate Use

Appropriate access to course materials is given for personal academic study and review purposes only. Unless otherwise stated in writing, this content may not be shared, distributed, modified, transmitted, reused, sold, or otherwise disseminated. These materials may also be protected by additional copyright; any further use of this material may violate Hong Kong copyright law. Unethical sharing of course material on commercial websites such as CourseHero is a breach of academic conduct. Violators of this policy will be referred to the University Legal Counsel for disciplinary purposes.

POLICY - Grade Appeal

All scores will be uploaded to Canvas when ready. Students who consider that a mistake has been made in the process of calculating or determining a grade for a course may apply for a review of the grade. Students are asked to discuss the matter with the course instructor formally via email within 24 hours after its release. Students should be warned that a grade review might lead to a lower grade being assigned. It is always the responsibility of students to check their scores in due time and decide if an appeal is needed.