

**Hong Kong University of Science and Technology  
School of Business and Management  
Spring 2020**

**ISOM 2010 – INTRODUCTION TO INFORMATION SYSTEMS**

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Course Website: <http://canvas.ust.hk>

**COURSE DESCRIPTION**

In virtually every industry and every firm, information technology is driving change, creating opportunities and challenges. Leaders who fail to understand the operational and strategic importance of information systems (IS) will not be able to keep up with the pace of their competitors. IS have moved beyond the automation of back office functions into the foreground of business strategy, and play critical roles in competitive positioning and business process design.

This course provides a broad coverage of technology concepts and trends underlying current and future developments in information technology (IT), and fundamental principles for the effective use of computer-based information systems. There will be a special emphasis on e-commerce, business integration and IT management. Other topics include: software, databases, data analytics, and enterprise applications. In addition to the fundamental conceptual and propositions in the IS area, a number of business applications and cases will be discussed; the newest trend in today's technology domain will also be discussed.

**Learning Outcomes**

The goal of this course is to provide you with an introduction to IT-enabled approaches to information management in business contexts.

Upon completion of the course, students will be able to  
(T-Taught, P-Practiced, M-Measured)

1. Describe how a business organization's choice of strategy and process (what the firm does and how the firm does it) and their resulting effectiveness are closely related to the firm's information management and communications capabilities (OBE Goals 3, 4. T, P).
2. Form a foundation to develop quantitative and analytical techniques to solve business problems with innovative perspectives that extends beyond this course (Goals 1, 9. T, P, M).
3. Analyze the core technological and business issues and identify critical factors for business decision-making (Goals 1, 4. T, P, M).
4. Evaluate information systems; examine their relations with business strategy, process, and organization (Goal 3. T, P, M).

This course will also provide students with:

1. Skills in producing professional quality business documents, delivering professional quality presentations and communicating ideas persuasively (Goal 2. T, P, M).
2. Ability to lead and work effectively in a team (Goal 5. T, P).
3. Proficiency in using IT applications in business and management; tools for searching, organizing and processing information using appropriate information technology and systems (Goal 7. T, P, M).

4. Preparation for future careers in business and social environments that are deeply permeated with and dependent upon IT (Goals 3, 9. T, P).

We believe that an understanding of the topics covered in this course will pay subtle and unexpected dividends throughout your careers (Goal 9. T, P).

### **COURSE MATERIALS**

Classes will include a mixture of lectures, labs and presentations. There is **no required textbook** for this course. Additional readings and reference materials can be accessed through the course website. Students are expected to come to class prepared.

### **EVALUATIONS [subject to change depending on situation with Covid-19]**

Class Participation	15%
Labs	15%
Group Project	20%
Midterm Exam	20%
Final Exam	30%
Total	<b>100%</b>

**Class Participation (15%):** Students are expected to participate in class activities (e.g., surveys, tests) and attend the invited speakers’ sessions in the “Industry Week”. To facilitate class activities, we shall use uReply (<https://ureply.ust.hk/>). Please be ready to participate in class activities with your phones (that are expected to be in **silent mode**). **Depending on situation with Covid-19 outbreak, we may adopt alternative class participation assessments.**

In-class engagement, such as raising and responding to questions, is highly encouraged; not only does it enriches your learning, but it also contributes to a more interactive environment for all. However, because not everyone will have the opportunity to voice out due to the large class size, in-class engagement will not count towards your course grade.

**Labs (15%):** The class environment of the lecture (e.g., large class size, no computer access) is not conducive for teaching technical skills. Hence, there will be separate lab sessions of 50 minutes each to cover basic to advanced skills. In almost every lab session, there is a task that you need to complete during the lab session. You **MUST** attend the lab session to which you are assigned; lab instructors will ask unregistered students to leave. **You will not get credit for work done during a session for which you are not registered.** Also, content for lectures and lab sessions are non-overlapping – generally, the lectures emphasize on managerial and strategic implications of information technology, whereas the lab sessions focus on specific technical knowledge.

**Group Project (20%):** This is a group-based course project that is intended to allow you to exercise your insights and analytical abilities to a real-life business/application. The TA will assign students to their respective groups. The group is to develop a business idea for a new technology (e.g., online platform, system, software, mobile application). A main deliverable is a business plan detailing the technology and the target market. The page limit of the business plan (including references, tables, and appendices) is **8 pages (A4 paper, 1-inch margin on all sides, double-spaced, 11pt, Times New Roman).** The business plan is **due on 15 May (12noon).**

The TA will assign the presentation slots to groups. The detailed presentation arrangements will be available in CANVAS in the second half of the semester.

There are two deliverables for the group project: (1) the business plan (10%), and the project presentation (10%). We look for clarity, level of effort, and quality of content in the business plan and presentation when assigning grades.

Typically, all members of a group would receive the same grade for the group project. However, we will moderate individual students' group project grades based on peer evaluations. Students will be required to evaluate their group mates' contributions to the group projects, after the submission of the business plans. Students who are evaluated badly in the peer evaluations would receive lower group project grades (check the lecture 1 notes for details).

**Mid-term (20%) and Final (30%):** These are major check points to ensure that you understand the key concepts that we introduce in this course. The mid-term examination will cover the Digital Economy and E-commerce topics tentatively, whereas the final examination will cover materials of the other topics. Review sessions will be scheduled to help you prepare for these examinations. There is **NO** make-up for the final examination.

**Note.** The course performance evaluations are subject to change depending on situation with Covid-19 outbreak. Possible changes include, but are not limited to replacing exams with other evaluation components, changing the weighting of evaluation components, and adopting alternative class participation assessments.

### **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 acknowledgement that it is someone else's; (b) paraphrasing another's views, opinions or insights without proper acknowledgement or copying of any source in whole or in part with only minor changes in wording or syntax even with acknowledgement; (c) submitting as one's own work a report, examination, paper, computer file, lab report or other assignment 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>

Date	Topic
Feb 19 (Wed)	Course Overview
Feb 21 (Fri)	Digital Economy (I)
Feb 26 (Wed)	Digital Economy (II)
Feb 28 (Fri)	Digital Economy (III)
Mar 4 (Wed)	E-Commerce (I)
Mar 6 (Fri)	E-Commerce (II)
Mar 11 (Wed)	E-Commerce (III)
Mar 13 (Fri)	E-Commerce (IV)
Mar 18 (Wed)	Mid-Term Exam Review
Mar 20 (Fri)	<b>Midterm Exam</b>
Mar 25 (Wed)	Online Platforms (I)
Mar 27 (Fri)	Online Platforms (II)
Apr 1 (Wed)	Business Analytics (I)
Apr 3 (Fri)	Business Analytics (II)
Apr 8 (Wed)	Business Analytics (III)
Apr 10 (Fri)	<b>Public Holiday</b>
Apr 15 (Wed)	<b>Industry Week</b>
Apr 17 (Fri)	<b>Industry Week</b>
Apr 22 (Wed)	Big Data Analytics (I)
Apr 24 (Fri)	Big Data Analytics (II)
Apr 29 (Wed)	Group Project
May 1 (Fri)	<b>Public Holiday</b>
May 6 (Wed)	Group Project
May 8 (Fri)	Group Project
May 13 (Wed)	Emerging Technology
May 15 (Fri)	Course Recap

**Note.**

Lecture schedule is tentative and subject to change. Please check the course website regularly for the updated schedule.

Please refer to Lab Canvas for the lab schedule and syllabus. Contact the TA of your lab section for all lab matters.