Hong Kong University of Science and Technology
School of Business and Management
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ISOM 2010 – INTRODUCTION TO INFORMATION SYSTEMS

Instructor: Professor Tat Koon KOH
Email: koh@ust.hk
Office: LSK Building Room 4061
Office Hours: By appointment

Teaching Assistant: Olivia Chan
TA's Office: LSK Building TA Office (Level 4)
TA's Office Hours: TBA

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 additional 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 videos, presentations, and lectures. 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 and participate in discussions.

EVALUATIONS

Course Participation	15%
Labs	15%
Group Project	20%
Midterm Exam	20%
Final Exam	30%
Total	**100%**

* Late Submission Policy:

Within 24 hours late: 20% score deduction
More than 24 hours late: 0 score

Course Participation (15%): There are two aspects of course participation. First, students are expected to participate in course activities (e.g., surveys, self-tests, reading assignments) and attend the invited speakers' sessions in the "Industry Week" (5%). In-

class participation, 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 participation <u>will not</u> count towards your course grade.

Second, students are expected to contribute to other students learning (10%). This will be achieved during the group project presentations, where you can provide your evaluation, feedback, and suggestions to help other groups improve their project. The respective groups and the instructor will assess your inputs.

Labs (15%): The class environment of the lecture (e.g., big 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. **<u>You will not get credit for work done during a session for which you are not registered.</u>** 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 for 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) by applying the concepts that we discuss in class.

There are two deliverables for the group project: (1) project presentation (10%), and project report (10%). I look for clarity, effort, and quality in the application of course content in the presentation and report when grading. Information about the presentation schedule and format will be announced after the group formation. The page limit of the report (including references, tables, and appendices) is **8 pages (A4 paper, 1-inch margin on all sides, double-spaced, 11pt, Times New Roman).** The report is **due on May 5 (11:59PM HKT).**

Typically, all members of a group would receive the same grade for the group project. However, I will moderate individual students' project grades based on peer evaluations. Students who perform exceedingly well in their peer evaluations could receive higher group project grades than their group mates, and those who do badly in their peer evaluations would receive lower group project grades.

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 examinations are non-

cumulative. Review sessions will be scheduled to help you prepare for these examinations. There is **NO** make-up for missed examinations.

Course Grade Distribution: Refer to http://qa.ust.hk/aos/distribution.html

ACADEMIC INTEGRITY

Cheating in course assignments and/or exams will result in a "Fail" grade for this course. You could also be further penalized by the school/university. For more information academic integrity in HKUST, refer to http://tl.ust.hk/integrity/student-1.html

Course Outline (Subject to changes)

	Topic
Feb 3	Course Overview + Introduction of IS
Feb 5	Digital Economy (1)
Feb 10	Digital Economy (2)
Feb 12	No Class (Lunar New Year)
Feb 17	Digital Economy (3)
Feb 19	E-Commerce (1)
Feb 24	E-Commerce (2)
Feb 26	E-Commerce (3)
Mar 3	Mid-Term Exam Review
Mar 5	Midterm Exam
Mar 10	Platform Economy (1)
Mar 12	Platform Economy (2)
Mar 17	Business Analytics and Big Data (1)
Mar 19	Business Analytics and Big Data (2)
Mar 26	Business Analytics and Big Data (3)
Mar 31	No Class (Mid-Term Break)
Apr 2	No Class (Good Friday)
Apr 7	Business Analytics and Big Data (4)
Apr 9	Business Analytics and Big Data (5)
Apr 14	Industry Week
Apr 16	Industry Week
Apr 21	Group Project Presentations*
Apr 23	Group Project Presentations*
Apr 28	Group Project Presentations*
Apr 30	Group Project Presentations*
May 5	Emerging Technology
May 7	Course Recap

* You must attend your registered section for all group presentations, regardless of whether you are presenting on that particular day. Absent on any of those days will result in low class participation scores.

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