



ISOM 2010 INTRODUCTION TO INFORMATION SYSTEMS

FALL 2026 (SECTION L9)

Course Instructor	Dr. Yongsuk (“Yong”) KIM Dept. of Information Systems, Business Statistics, and Operations Management (ISOM)
Class Times and Location	L9: Wednesdays & Fridays 13:30-14:50, LSK-G012
Office Hours (Rm)	By appointment (LSK5045)
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Teaching Assistant	Sophie J GU (imsophie@ust.hk)

Course Overview and Objectives

In virtually every industry and every firm, information technology (IT) is driving change, creating opportunities and challenges. Leaders who don’t understand the fundamentals of information systems (IS) will be at a strategic disadvantage. IS have moved beyond the automation of back office functions, into the foreground of business strategy. IS play critical roles in competitive positioning and business process design.

This course provides broad coverage of technology concepts and trends underlying current and future developments in IT, and fundamental principles for the effective use of computer-based IS in businesses and other organizations. There will be a special emphasis on the digital economy, e-commerce, digital platforms, business analytics, and AI and big data. In addition to the fundamental concepts and propositions in the IS area, a number of business applications, cases, and the newest trends in today’s technology domain will be discussed.

The learning objectives of the course are as follows: (T-Taught, P-Practiced, M-Measured)

- Upon completion of the course, students will be able to
 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 (T, P).
 2. Build a foundation for developing quantitative and analytical techniques to solve business problems with innovative perspectives that extends beyond this course (T, P, M).
 3. Analyze the core technological and business issues and identify critical factors for business decision-making (T, P, M).
 4. Evaluate information systems; examine their relations with business strategy, process, and organization (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 (T, P, M).
 2. Ability to lead and work effectively in a team (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 (T, P, M).
 4. Preparation for future careers in business and social environments that are deeply permeated with and dependent upon IT (T, P).
- We believe that an understanding of the topics covered in this course will pay subtle and unexpected dividends throughout your careers (T, P).

About the Instructor

Professor Yong Kim is a faculty member of Information Systems at the HKUST Business School. He received his doctoral degree at the McCombs School of Business at the University of Texas at Austin. He also holds a master's degree in Human Computer Interaction (HCI) from the University of Michigan at Ann Arbor. Prior to graduate studies, he worked at IBM Business Consulting Services. In his research, he investigates IT-enabled open innovation such as crowdsourcing and user innovation community and IT-enabled knowledge sharing in distributed organizations, and human-AI collaboration.

Course Materials

- No required textbook; refer to the reading materials on Canvas.
- Use the readings to deepen your understanding of the topics discussed in class. You are encouraged to work through them, but exam questions will not be drawn directly from the readings.

Course Requirements and Grading

Grading

Percent	Requirement	Note
10%	Class Participation • Self-introduction on Canvas (1%)..... • Industry Week talks (2%)..... • Random attendance checks (7%).....	By Sep 15 (at the latest) In November, tentative Throughout the semester
15%	Labs	Throughout the semester
25%	Mid-term Exam	Sep 30 (7-9PM @)
25%	Final Group Project • Group Formation..... • Presentation (10%)..... • Final Project Report (15%).....	Oct 7 (S11); finalized by Oct 9 (S12) Nov 18 – Nov 25 (S23–S25) By Dec 4
25%	Final Exam	TBA (Fall exam period: Dec 7 – 19)

Class Participation (10%)

Self-introduction on Canvas (1%)

Once your access is permitted, introduce yourself to the class on the discussion board. Look for the discussion thread titled “Please introduce yourself to us!”. Please answer the following questions.

1. *Name (First Name Last Name)*
2. *Preferred name*
3. *Major(s) and school year (also school/country - if you are an exchange student)*

4. *Where are you from?*
5. *Things you love to do*
6. *One truth and one lie (or vice versa) about you (but don't tell us which is which)*
7. *Technologies or products you are interested in*
8. *Anything else to say? (Promote yourself!)*

To earn your point, you should finish introducing yourself no later than **Sep 15**.

Attendance (9%)

I come to class—on time—and I expect you to do the same. Attendance is worth 9 points in total: 2 points from mandatory Industry Week talks and 7 points from random attendance checks.

1. Mandatory Industry Week Talks (2 points)

Two industry talks during “Industry Week” are mandatory and are worth 1 point each.

- **No Waivers:** The waiver described below does not apply to these talks. Missing a designated industry talk results in an immediate 1-point deduction.
- **Schedule:** Industry Week is *tentatively* set for November, but the week may change. The confirmed dates, speakers, and details will be announced on Canvas.

2. Random Attendance Checks (7 points)

I will run 10 unannounced attendance checks over the semester. Each check is worth 1 point, and your score from these checks is capped at 7.

- **The Waiver:** Because only 7 of the 10 checks are needed for full credit, you effectively have three free misses. Missing three or fewer checks costs you nothing.
- **Penalties:** Each miss beyond the third deducts 1 point.

3. How Checks Are Run

Checks are unannounced and the format varies:

- The TA may check on-time arrival at the start of class. The TA leaves five minutes after the start time; arriving after the TA has left counts as an absence.
- Your attendance may be checked during class through a short random quiz, or immediately before class ends.
- **Records:** The TA will post the attendance record on Canvas after each check. Please review it there.

4. No Additional Waivers

Three free misses are generous, so no further waivers are granted—not for job or internship interviews, university or student-society events, or short-term illness. (Extended absence due to hospitalization is handled separately; contact the TA directly.) You therefore do NOT need to notify me or the TA of an absence in advance, and no supporting documentation is required or accepted.

Labs (15%)

Each 50-minute lab session will cover basic to advanced skills and knowledge of various business analytics applications, as well as other interesting topics. Almost every lab session includes a task

that you must complete during the session. You must attend the session to which you are assigned. Lab instructors will ask unregistered students to leave. You will not receive credit for work done during a session for which you are not registered. Also, the content of the lectures and lab sessions is not overlapping. Generally, the lectures emphasize the managerial and strategic implications of information technology, while the lab sessions focus on specific technical knowledge. Of the two exams, only the final exam will cover what is learned in lab sessions. Contact the TA of your lab section for all lab-related inquiries.

Exams (50%)

There are two exams: one mid-term (25%) and one final exam (25%). The exams will be based on the topics and related concepts taught during class. The final exam consists of two separate parts: a lab-based part covering the lab sessions and a lecture-based part covering the lectures. The two parts are independent of each other; neither draws on the material of the other. In addition, the final exam is not cumulative: topics already covered on the mid-term will not be asked again.

The mid-term and the lecture-based part of the final follow the same format: true/false, multiple-choice, multiple-answer, and open-ended questions. Multiple-answer questions are graded all-or-nothing—no partial credit is awarded. Both exams are closed-book; no cheat sheet is permitted.

If you have (or had) to miss an exam due to extraordinary circumstances such as unexpected hospitalization or loss of a family member, please let me and the TA know as soon as you can and see me with a doctor's note and/or verifiable, reliable, and valid evidence. Only under such extraordinary circumstances, a make-up exam will be arranged for you but with an additional *oral* examination. In other cases, there will be no make-up exam if you miss the exam. Time conflicts with job interviews, other tests, travel plans, etc. will not be considered.

Final Group Project (25%)

The final project is a collaborative effort designed to apply course frameworks to a real-world scenario. While specific project details will be announced in class, the following guidelines apply:

Teamwork & Accountability

- **Equal Contribution:** All team members are expected to contribute equally.
- **Peer Evaluation:** To ensure fairness, individual contributions will be assessed via peer evaluation at the end of the semester.
- **Conflict Resolution:** Group leaders should notify the instructor if the team encounters a serious "free-riding" problem that cannot be resolved internally.

1. Group Formation

- **Size:** Group size will be determined once enrollment is finalized.
- **Process:** Self-signup is encouraged. We will run an in-class group formation activity on Oct 7 (S11) to help you form teams. Students who have not joined a team by then will be assigned to groups with available spots, and group formation will be finalized in class on Oct 9 (S12).

2. Group Presentation (10%)

The presentation grade is split equally between individual performance and overall group effectiveness. The rubric for the final group presentation and report can be found in the appendix.

Format & Requirements

- **Duration:** 10 – 13 minutes per group. I will give a hand signal at the 12-minute mark; wrap up within the final minute so the last presenter is not shortchanged.
- **Participation:** Every group member must participate as a presenter.
- **Slides:** There is no required number of slides. To allow individual grading, clearly indicate on each slide the name of the member who will deliver it.
- **Session Attendance:** Attend only the presentation session you are scheduled for; do not sit in on other sessions.
- **Punctuality:** Arrive on time. Late arrival will affect your individual presentation grade.
- **Dress Code:** There is no dress code for these sessions.

A. Individual Performance (5%)

Each member is evaluated on their specific delivery:

- **Clarity & Confidence:** Speak clearly and professionally. A brief glance at your notes is fine; reading from your notes or slides, or glancing at them frequently, is not.
- **Engagement:** Maintain eye contact and engage the audience effectively.
- **Preparation:** Demonstrate a thorough and seamless understanding of your assigned part.

B. Group Content & Q&A (5%)

The group as a whole is evaluated on the following:

- **Visual & Narrative Flow:** How effectively the content is organized and presented.
- **Q&A Ownership:** The ability to respond to questions with clarity, composure, and a deep understanding of the topic. The group must be prepared to defend their analysis and recommendations.
- **Submission:** The presentation slides must be submitted online via Canvas by S23 (Nov 18). This deadline applies to *all* groups, *regardless of* the session on which you are scheduled to present.

3. Final Project Report (15%)

The report is a comprehensive, written elaboration of your presentation. While the presentation introduces your ideas, the report must provide significantly more depth and rigorous analysis.

- **Format:** A4 paper, 1-inch margins on all sides, single-spaced, 11pt, Times New Roman. Submit via Canvas.
- **Page Limit:** The main body of the report is limited to a maximum of 12 pages. The cover page, reference list, AI Usage Statement, and Roles and Responsibilities (R&R) statement are excluded from this limit. Everything else counts toward it, including the main content, appendices, diagrams, figures, and tables.
- **Citations:** Use in-text citations following APA style. Double-check that every entry in your reference list is correct—inaccurate references are a frequent source of penalty.
- **Structure:** Address the assignment questions in a holistic and integrated manner rather than a simple Q&A format.
- **Submission:** The report must be submitted online via Canvas by the due date, Dec 4. This is a group submission—only one member per group needs to submit on behalf of the whole team.

- **Required Last Page:** The final page of the report must include (1) an AI Usage Statement specifying the tools used, the prompts provided, and how the output was edited or integrated into your work, and (2) a Roles and Responsibilities statement describing each member's specific role and primary contributions.

Evaluation Criteria:

- **Design Logic & Coherence:** The proposal must hold together as a system. Each element should follow from the one before it, and the report should explain why the design works rather than only what it consists of.
- **Depth & Specificity:** Keep the analysis concrete and particular to your proposal. Argue your choices at the level of detail where they could actually go wrong; passages that could describe any project, or that restate your slides, earn no credit.
- **Reasoning & Evidence:** Support your claims. Evidence must be relevant to the specific point it is attached to, and the inference from evidence to conclusion must be visible rather than assumed.
- **Feasibility & Originality:** Be realistic under your stated constraints while offering something a competent team would not have arrived at by default. Both halves are required: originality that ignores feasibility, and feasibility with no distinguishing idea, are each capped.

4. Peer Evaluation & Individual Grade Moderation

While the group project is a collective effort, the final grade for each student is not necessarily identical. To ensure accountability and reward exceptional contribution, I will moderate individual grades based on peer evaluations.

- **The "Merit Bonus":** This system is not just to catch "free-riders." Exceptional contributors who are recognized by their peers for outstanding leadership or taking on significant technical/research burdens may receive an individual score higher than the base group grade (up to +15–20%).
- **Low Performance:** Conversely, students who are identified as "free-riders" or who fail to meet their team obligations will see a significant reduction in their final project grade.
- **Anonymity:** Evaluations are anonymous and will be viewed only by the instructor and the TA. Your ratings and comments will not be shared with your teammates.
- **Mandatory Submission:** Submitting the evaluation is mandatory. Failure to submit, or an incomplete submission, before the deadline will result in a penalty to your individual project grade.

5. Point Deductions

In addition to the rubric-based grading (as specified in Appendix I), points will be deducted for the following. Each of these was a common failure in past semesters, so please read them carefully.

- Group-level deductions (applied to the whole group):
 - Omitting the AI Usage Statement or the Roles and Responsibilities statement from the report.
 - Failing to verify the authenticity of the works cited in your reference list. Fabricated or unverifiable sources are treated as a serious issue: the group will be contacted for validation and the matter may be handled under the academic integrity policy.

- Omitting member names from the presentation slides, so that individual delivery cannot be graded.
- Individual-level deductions (applied to that student only):
 - Failing to arrive on time for your group's presentation session.
 - Failing to complete the peer and self-evaluation survey.
 - Being peer-evaluated as having contributed significantly less than the rest of the group.

Course Policies

Instructor-Student Communication

I encourage you to visit me during office hours (by appointment) to discuss course-related questions or concerns. If you cannot meet in person, please email me and ensure the subject line begins with “[ISOM 2010]”.

- **Response Time:** I dedicate 30 minutes each weekday afternoon to address class emails. You can generally expect a response within 24 hours.
- **TA Support:** You are also encouraged to seek assistance from the TA.
- **Feedback:** I value your input on our classroom activities and learning process. Please feel free to share your thoughts on how I can further improve your learning experience.

Generative AI Usage

Generative AI (e.g., ChatGPT, DeepSeek, Gemini, Grok) is permitted for all graded work in this course except for examinations. However, its use must be transparent and ethically documented.

- **Disclosure & Citation:** You must properly cite and disclose any AI-generated content used in your submissions. This includes an “AI Usage Statement” on the last page of your report, specifying:
 1. The specific AI tool(s) used.
 2. The prompts provided to the AI.
 3. A brief description of how the AI output was edited or integrated into your final work.
- **Plagiarism:** Unattributed or improperly cited AI-generated material will be treated as plagiarism. Any violation of this policy will be handled strictly according to HKUST’s academic integrity regulations.
- **Responsibility:** You are 100% responsible for the final output. AI-generated factual errors or “hallucinations” will be graded as your own work.

Classroom Etiquette

To ensure a productive learning environment for everyone, please adhere to the following:

- **Punctuality:** Please arrive on time.
- **Respect:** Value and respect the diverse views and opinions of your peers.
- **Devices:** Ensure mobile devices are turned off or set to silent.
- **Focus:** Avoid private conversations during class to prevent disturbing others.

- **Section Integrity:** Participation, attendance, group projects, and exams are valid only within your registered section; cross-section activities will not be recognized.

Grading & Re-grading

Exams and assignments are graded by the TA. If you believe there is a grading error:

1. **Initial Inquiry:** Email the TA within three days of receiving your grade.
2. **Escalation:** If the issue is not resolved, contact the professor via email (CC the TA). The subject line must start with “[ISOM 2010]” and include a clear justification for the re-grading request.
3. **Final Review:** If the professor re-grades the work, the new grade will be final—please note that the grade may increase, decrease, or stay the same.

Late Submission

To encourage timely progress, the following penalties apply to late assignments:

- **Penalty:** A 20% deduction of the total possible points for each day (or partial day) the assignment is late.
 - E.g., one day late results in a maximum score of 80%; two days late results in a maximum of 60%.
 - Submissions more than four days late will not receive credit.
- Please prepare in advance to avoid technical difficulties. If you have a known scheduling conflict, you are welcome to submit your work early.

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. In addition to the course content related to business ethics related to IS/IT, 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 website at <https://registry.hkust.edu.hk/resource-library/academic-integrity>.

Class Schedule (Tentative – Please refer to Canvas for the latest updates)

Each session has a module of its own on Canvas wherein you can find what to learn on that session and access assigned readings and class notes.

Session/Date		Topic
Session 1	Sep 2	Course Overview
Session 2	Sep 4	Digital Economy I
Session 3	Sep 9	Digital Economy II
Session 4	Sep 11	Digital Economy III
Session 5	Sep 16	Digital Economy IV
Session 6	Sep 18	E-commerce
Session 7	Sep 23	Digital Platform I
Session 8	Sep 25	Mid-term Exam Review
Session 9	Sep 30	Mid-term Exam (Sep 30 (7-9PM @))
Session 10	Oct 2	Digital Platform II
Session 11	Oct 7	Digital Platform III Final Project Group Formation (in class)
Session 12	Oct 9	Case Discussion & Introduction to the final group project (group formation finalized)
Session 13	Oct 14	Business Analytics I
Session 14	Oct 16	Business Analytics II
Session 15	Oct 21	Project Working Day (No lecture)
Session 16	Oct 23	AI & Big Data I
Session 17	Oct 28	AI & Big Data II
Session 18	Oct 30	AI & Big Data III

Session/Date	Topic
Session 19 Nov 4	Industry Week (tentative – week subject to change)
Session 20 Nov 6	
Session 21 Nov 11	Emerging Topic – AI Ethics
Session 22 Nov 13	Emerging Topic – Blockchain and Web3
Session 23 Nov 18	Project Presentations I NOTE: SUBMIT YOUR FINAL GROUP PRESENTATION SLIDES
Session 24 Nov 20	Project Presentations II
Session 25 Nov 25	Project Presentations III
Session 26 Nov 27	Wrap-up
Final Week	Final Exam (LOCATION/DATE: To Be Announced)

Appendix I: Final Group Project Rubric

1. Final Group Presentation Rubric (10%)

Part A: Individual Performance (5%)

Evaluates the specific delivery and professionalism of each student. Each criterion is scored out of 5; the two criterion scores are averaged to produce the Part A grade out of 5.

Criteria	Exceptional (5)	Proficient (3-4)	Needs Improvement (1-2)
Clarity & Confidence	Speaks clearly and professionally. Maintains steady eye contact; at most an occasional brief glance at notes.	Generally confident but occasionally checks notes or speaks too quickly/quietly.	Relies heavily on reading notes, a script, or the slides. Little to no audience engagement.
Preparation & Ownership	Demonstrates complete mastery of their part; uses technical terms accurately and seamlessly.	Understands the flow but may stumble on complex explanations or specific details.	Appears unfamiliar with the content; explanations are vague or confusing.

Part B: Group Content & Q&A (5%)

Evaluates the overall narrative flow, visual quality, and the team's defensive ability. Each criterion is scored out of 5; the two criterion scores are averaged to produce the Part B grade out of 5.

Criteria	Exceptional (5)	Proficient (3-4)	Needs Improvement (1-2)
Visuals & Narrative	Slides are professional and easy to read. Transitions between members are seamless and logical.	Slides are clear but may be text-heavy. Transitions are mostly smooth with minor pauses.	Visuals are cluttered or unprofessional. The presentation feels disjointed or repetitive.
Q&A Performance	Responds with composure and deep insight. Effectively defends analysis with logical evidence.	Answers most questions well, though some responses may lack specific depth.	Unable to address questions effectively; demonstrates a lack of preparation or understanding.

2. Final Project Report Rubric (15%)

Evaluates the depth, logic, and professional rigor of the written document. Each criterion is scored out of 5 using the rating bands below (0 if the criterion is not addressed at all). Criterion scores are

weighted as shown, and the weighted average is multiplied by 3 to give the 15-point report grade: all four criteria at 5 therefore yields the full 15 points.

Criteria	Weight	What is evaluated
Design Logic & Coherence	35%	The proposal holds together as a system. Each element follows from the one before it, and the report explains why the design works rather than only what it consists of. Assumptions the design depends on are stated and defended rather than left implicit. Later sections do not quietly contradict commitments made earlier.
Depth & Specificity	30%	Analysis is concrete and particular to this proposal. Choices are argued at the level of detail where they could actually go wrong. Passages that could describe any project in the cohort, or that restate the presentation slides, do not earn credit here.
Reasoning & Evidence	20%	Claims are supported. Evidence is relevant to the specific point it is attached to, sources are appropriate to the claim's weight, and inference from evidence to conclusion is visible rather than assumed.
Feasibility & Originality	15%	The proposal is realistic under stated constraints and offers something a competent team would not have arrived at by default. Both halves are required: originality that ignores feasibility, and feasibility with no distinguishing idea, are each capped here.

Rating bands (applied to each criterion):

Rating	Descriptor
Exceptional (5)	Specific and causally argued. Anticipates the strongest objection and answers it. <u>Materially exceeds the presentation.</u>
Proficient (3-4)	Correct and complete, but descriptive rather than analytical — states what will happen without demonstrating why it follows.
Needs Improvement (1-2)	Generic, or containing a visible gap in the reasoning; addressed only in passing, or in a way that conflicts with the rest of the report.
Absent (0)	Not addressed.

Note that individual project grades may be adjusted (+/-) based on the mandatory peer evaluation results to ensure accountability.

Appendix II: Peer and Self-Evaluation Form

Objective: This evaluation is designed to ensure accountability and fairness in the final group project. Your honest feedback is critical for the instructor to moderate individual grades based on actual contribution.

Confidentiality: This form is anonymous and will be seen only by the instructor and the TA. Your ratings and comments will not be shared with your teammates.

I. Individual Ratings

Rate yourself and each team member on a scale of **1 to 5** (5=Excellent, 4=Good, 3=Average, 2=Below Average, 1=Poor).

Name	Reliability & Punctuality	Quality of Contribution	Collaboration & Spirit	Overall Score
1. (Self)				
2.				
3.				
4.				
5.				

- **Reliability:** Met deadlines, attended group meetings, and was reachable.
- **Quality:** Provided substantive research, analysis, or technical work that improved the project.
- **Collaboration:** Listened to others, shared ideas, and helped resolve conflicts.

II. Relative Contribution (%)

If your group's total effort equals 100%, how would you distribute that percentage among all members? **The total must sum to 100%.**

- **Self:** _____ %
- **Member 2:** _____ %
- **Member 3:** _____ %
- **Member 4:** _____ %
- **Member 5:** _____ %
- **Total:** 100%

III. Qualitative Reflection (Confidential)

1. Self-Reflection: Briefly describe your specific role and primary contributions to the project (e.g., specific sections of the report you wrote, data you analyzed, or presentation slides you designed).

2. Peer Feedback: If you assigned a score of **2 or lower** or **5** to any member, please provide a brief justification here. (Examples: "Always late to meetings," "Took the lead in complex data analysis," etc.)