

ISOM 4040 – Digital Strategy and Transformation

Fall 2025

Instructor Information

Instructor:	Xiaodong Yang Xiaodongy@ust.hk
Office Hours:	Office: LSK 4082A By appointment through email
Teaching Assistant	Cetus Wong (imhtwong@ust.hk)
Office Hours:	By appointment through email

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 Canvas.

There is some pre-reading. Course material(s) will be posted to Canvas before each class.

Course Description

This course is tailored for students aiming to achieve a profound understanding of the principles and practical applications of digital transformation. It will provide students with the essential knowledge and skills necessary to lead successful digital initiatives in a rapidly changing environment. Students will learn how to design and execute effective digital transformation strategies that align with their organization's goals and yield measurable business results.

The course combines lectures, case studies, hands-on labs, and projects to explore both the foundational concepts and practical aspects of digital transformation. Key topics include digital strategy principles, digital technologies, organizational capabilities and digital transformation model & roadmap.

Learning Outcomes

Upon successful completion of the course, students will be able to:

1. Comprehend the roles and impacts of digital strategy and transformation within organizations.
2. Understand emerging digital technologies and their business applications.
3. Design and implement organizational models and capabilities to facilitate successful digital transformation.
4. Develop a comprehensive roadmap for digital transformation, covering stages from pilot projects to full-scale implementation.

Course Assessment

Participation	15%
Group Assignment	15%
In-class Quiz 1	20%
Project Presentation	20%
Peer Evaluation	10%
In-class Quiz 2	20%
Total	100%

Participation (15%): Students are expected to come to class prepared and actively participate in discussions. The instructor may invite guest speakers. To earn participation points, students must submit on Canvas after each class. A valid submission should include the student's participation (beyond just attendance) and at least two key takeaways from the previous class. Please note that classes focused on quizzes and course review will not offer participation points. **Attendance in in-class labs and presentations will automatically earn participation points.** Students arriving more than 10 minutes late to these 5 classes will not be marked as present for attendance purposes.

Assignment (15%): Each group will write an essay in which they select one company and analyze its mission/vision, strategy, digital strategy and digital-enabled business model using the tools/frameworks provided in the class. The length of this essay should be between 1,000 and 1,500 words, excluding diagrams, tables, and appendices.

In-class Quiz 1(20%): A quiz consisting of 40 multiple-choice questions will be conducted in class. Students will have one hour to complete this paper quiz, which will cover materials from Weeks 1 to 5, with a focus on cloud computing. This quiz will be closed book and closed notes.

Peer evaluation (10%): Students are expected to assess their peers' contributions to all group work, including assignment and project.

Project Presentation (20%): This group activity allows students to apply their insights and analytical skills to a real-world example, focusing on the digital transformation journey of a single company. Presentation outlines must be approved by the instructor. Each group will present their findings to the class. A written paper is not required, and projects from other courses cannot be reused.

In-class Quiz 2(20%): This quiz consists of 40 multiple-choice questions covering material from Weeks 7 to 11 (contents from Quiz 1 will be excluded). Most questions will relate to blockchain and the Digital Transformation Model. Students will have one hour to complete this paper quiz, which will be closed book and closed notes.

Note: You are prohibited from using generative artificial intelligence (AI) to produce any materials or content related to the assessment tasks.

Late Policy

A 20% penalty will be deducted for each day or part of a day that an assignment is late. For instance, if you are 1 day late in submission, you or your group will be graded on 80% of your points for the submission. If you are 2 days late in submission, you or your group will be graded on 60% (reduction of $2 \times 20\%$) of your points for the submission. Any submission made 5 days past the deadline will be awarded 0 points. Please prepare in advance so that you will not encounter technical difficulties that will result in your work receiving a late penalty. If you have a conflict with the due date, assignments can always be submitted early.

Academic Integrity

Academic integrity entails absolute honesty in one's intellectual efforts. UST 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 following websites:

<https://registry.hkust.edu.hk/resource-library/regulations-student-conduct-and-academic-integrity>

Class Schedule (Tentative)
(Tuey & Thu 15:00-16:20, Sep 1– Nov 29)

Week	Session	Topic
1	1-2	Introduction and Strategy
2	3-4	Digital Strategy and Digital Business Model
3	5-6	Digital/Disruptive Technologies (Group Formed by Midnight of Sep 18)
4	7-8	Digital Technologies: Cloud Computing (Assignment Due by Midnight of Sep 25)
5	9-10	In-class Lab 1 and Change Management (DTBP Model)
6	11 (Oct 9)	Quiz 1 (covering Week 1-5)
7	12-13	Digital Technologies: Block Chain
8	14-15	In-class Lab 2 & Digital Technologies: AI
9	16-17	In-class Lab 3 & Digital Transformation Model
10	18-19	Digital Transformation Model (cont.)
11	20-21	Digital Capabilities and Digital Transformation Roadmap
12	22-23	Group Presentation
13	24-25	Course Review and Quiz 2 (covering Week 7-11)