

**City University of Hong Kong  
Course Syllabus**

**offered by Department of Information Systems  
with effect from Semester A 2024 / 2025**

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**Part I Course Overview**

**Course Title:** Digital Transformation and Technological Innovation in the Organisation

**Course Code:** IS6608

**Course Duration:** One Semester (13 weeks)

**Credit Units:** 3

**Level:** P6

**Medium of Instruction:** English

**Medium of Assessment:** English

**Prerequisites:**  
*(Course Code and Title)* IS5313 Foundations of Information and Electronic Business Systems

**Precursors:**  
*(Course Code and Title)* Nil

**Equivalent Courses:**  
*(Course Code and Title)* Nil

**Exclusive Courses:**  
*(Course Code and Title)* Nil

## Part II Course Details

### 1. Abstract

The aims of this course are to:

- Develop and enhance students' ability to:
  - analyze digital transformation initiatives and technological innovation in the context of organisations;
  - appreciate and apply models that explore the digital transformation process
  - identify opportunities to engage in technological innovation that facilitates the transformation of organisational processes into digitally-enhanced processes that create competitive advantage and process efficiencies for the organisation.
  - recognise the potential value and applicability of emerging technologies and practices (such as Blockchain, IoT, AI) for digital transformation
  - communicate digital transformation initiatives and technological innovation to a variety of relevant stakeholders both within the organisation and externally, in the role of digital and innovation thought leaders
  - motivate organisational stakeholders to identify and engage with technological innovations that facilitate digital transformation
  - consider how technological innovation and digital transformation contribute to strategic planning in the broader organisational context.

### 2. Course Intended Learning Outcomes (CILOs)

(CILOs state what the student is expected to be able to do at the end of the course according to a given standard of performance.)

No.	CILOs	Weighting (if applicable)	Discovery-enriched curriculum related learning outcomes (please tick where appropriate)		
			A1	A2	A3
1.	Conduct a rigorous analysis of case-based organisational processes (using different models and tools) in order to gain insights into opportunities for technological innovation that can then facilitate digital transformation.		✓	✓	✓
2.	Describe the emerging and innovative technologies and practices that constitute the basis for digital transformation		✓	✓	✓
3.	Plan strategic directions for organisations from the perspective of the Chief Digital Officer		✓	✓	✓
4.	Communicate technological innovation and digital transformation ideas and directions to both internal and external stakeholders		✓	✓	✓

A1: Attitude

*Develop an attitude of discovery/innovation/creativity, as demonstrated by students possessing a strong sense of curiosity, asking questions actively, challenging assumptions or engaging in inquiry together with teachers.*

A2: Ability

*Develop the ability/skill needed to discover/innovate/create, as demonstrated by students possessing critical thinking skills to assess ideas, acquiring research skills, synthesizing knowledge across disciplines or applying academic knowledge to real-life problems.*

A3: Accomplishments

*Demonstrate accomplishment of discovery/innovation/creativity through producing /constructing creative works/new artefacts, effective solutions to real-life problems or new processes.*

### 3. Learning and Teaching Activities (LTAs)

(LTAs designed to facilitate students' achievement of the CILOs.)

Seminar : 39 hours

LTA	Brief Description	CILO No.				Hours/week (if applicable)
		1	2	3	4	
LTA1. Seminar	Students will learn the cases and situations that describe digital transformation and technological innovation in organisational contexts. Students will be expected to read material before class. A variety of means will be used to analyse and discuss the cases, including small group focus group discussion and whole-class white board discussion.	✓	✓	✓	✓	
LTA2. Independent Study	All students will be expected to engage with the topic matter via outside class activities that may include readings of journal articles and web-based resources.	✓	✓	✓	✓	
LTA3. Research Experiences	All students will need to work on group projects in which they will need to undertake a review of the relevant literature and analyse how digital transformation and technological innovations are applied in organisation of their choice in order to develop their own insights.	✓	✓	✓	✓	

### 4. Assessment Tasks/Activities (ATs)

(ATs are designed to assess how well the students achieve the CILOs.)

Assessment Tasks/Activities	CILO No.				Weighting	Remarks
	1	2	3	4		
Continuous Assessment: 60%						
<b><u>AT1. Discussion and Participation</u></b> Students will be required to attend at least 70% of classes (9 classes). Failure to do so will result in failure of the course as a whole. Individual discussion and participation will be assessed during classes, and an aggregate score calculated for the entire semester. Discussion opportunities will include focus group discussions, student presentations, whiteboard-based discussions, open questioning during the seminar.	✓	✓	✓	✓	20%	
<b><u>AT2. Group Project</u></b> A group project will be developed involving the analysis of technological innovation and/or digital transformation in an existing organisational context.	✓	✓	✓	✓	40%	
Examination: 40% (duration: one 2-hour exam)						
<b><u>AT3. Examination</u></b> A written examination is designed to assess students' competence in the taught material. The examination will assess both basic knowledge and the acquisition and application of more advanced insights into the application of technological innovation and digital transformation in organisational contexts.	✓	✓	✓	✓	40%	
					100%	

Note: Students must pass BOTH coursework and examination in order to get an overall pass in this course.

## 5. Assessment Rubrics

(Grading of student achievements is based on student performance in assessment tasks/activities with the following rubrics.)

Applicable to students admitted before Semester A 2022/23 and in Semester A 2024/25 & thereafter

Assessment Task	Criterion	Excellent (A+, A, A-)	Good (B+, B, B-)	Fair (C+, C, C-)	Marginal (D)	Failure (F)
AT1. Discussion and Participation	Capability to rigorously and reflectively analyse organisational case-based problems, demonstrate insights into organisational realities and communicate these persuasively	High	Significant	Moderate	Basic	Not even reaching marginal levels
	Ability to describe the strengths and weaknesses of different technological innovations and digital transformation situations in the organisational context	High	Significant	Moderate	Basic	Not even reaching marginal levels
	Ability to engage in a professional standard of strategic planning from the Chief Digital Officer's Perspective	High	Significant	Moderate	Basic	Not even reaching marginal levels
	Ability to undertake a professional application of technological innovation in order to accomplish digital transformation in an organisational context	High	Significant	Moderate	Basic	Not even reaching marginal levels
AT2. Group Project	Capability to rigorously and reflectively analyse organisational case-based problems, demonstrate insights into organisational realities and communicate these persuasively	High	Significant	Moderate	Basic	Not even reaching marginal levels
	Ability to describe the strengths and weaknesses of different technological innovations and digital transformation situations in the organisational context	High	Significant	Moderate	Basic	Not even reaching marginal levels
	Ability to engage in a professional standard of strategic planning from the Chief Digital Officer's Perspective	High	Significant	Moderate	Basic	Not even reaching marginal levels
	Ability to undertake a professional application of technological innovation in order to accomplish digital transformation in an organisational context	High	Significant	Moderate	Basic	Not even reaching marginal levels
AT3. Examination	Capability to rigorously and reflectively analyse organisational case-based problems, demonstrate insights into organisational realities and communicate these persuasively	High	Significant	Moderate	Basic	Not even reaching marginal levels
	Ability to describe the strengths and weaknesses of different technological innovations and digital transformation situations in the organisational context	High	Significant	Moderate	Basic	Not even reaching marginal levels
	Ability to engage in a professional standard of strategic planning from the Chief Digital Officer's Perspective	High	Significant	Moderate	Basic	Not even reaching marginal levels
	Ability to undertake a professional application of technological innovation in order to accomplish digital transformation in an organisational context	High	Significant	Moderate	Basic	Not even reaching marginal levels

Applicable to students admitted from Semester A 2022/23 to Summer Term 2024

Assessment Task	Criterion	Excellent (A+, A, A-)	Good (B+, B)	Marginal (B-, C+, C)	Failure (F)
AT1. Discussion and Participation	Capability to rigorously and reflectively analyse organisational case-based problems, demonstrate insights into organisational realities and communicate these persuasively	High	Significant	Moderate	Not even reaching marginal levels
	Ability to describe the strengths and weaknesses of different technological innovations and digital transformation situations in the organisational context	High	Significant	Moderate	Not even reaching marginal levels
	Ability to engage in a professional standard of strategic planning from the Chief Digital Officer's Perspective	High	Significant	Moderate	Not even reaching marginal levels
	Ability to undertake a professional application of technological innovation in order to accomplish digital transformation in an organisational context	High	Significant	Moderate	Not even reaching marginal levels
AT2. Group Project	Capability to rigorously and reflectively analyse organisational case-based problems, demonstrate insights into organisational realities and communicate these persuasively	High	Significant	Moderate	Not even reaching marginal levels
	Ability to describe the strengths and weaknesses of different technological innovations and digital transformation situations in the organisational context	High	Significant	Moderate	Not even reaching marginal levels
	Ability to engage in a professional standard of strategic planning from the Chief Digital Officer's Perspective	High	Significant	Moderate	Not even reaching marginal levels
	Ability to undertake a professional application of technological innovation in order to accomplish digital transformation in an organisational context	High	Significant	Moderate	Not even reaching marginal levels
AT3. Examination	Capability to rigorously and reflectively analyse organisational case-based problems, demonstrate insights into organisational realities and communicate these persuasively	High	Significant	Moderate	Not even reaching marginal levels
	Ability to describe the strengths and weaknesses of different technological innovations and digital transformation situations in the organisational context	High	Significant	Moderate	Not even reaching marginal levels
	Ability to engage in a professional standard of strategic planning from the Chief Digital Officer's Perspective	High	Significant	Moderate	Not even reaching marginal levels
	Ability to undertake a professional application of technological innovation in order to accomplish digital transformation in an organisational context	High	Significant	Moderate	Not even reaching marginal levels

### Part III Other Information (more details can be provided separately in the teaching plan)

#### 1. Keyword Syllabus

*(An indication of the key topics of the course.)*

Note: While many topics are covered below, each will be used primarily in the context of a case to illustrate the application of an innovative technological approach that is valid in the broader context of digital transformation. Thus, students are not expected to learn everything about a particular topic, which might normally require much more time.

- Technological innovation, including the development and application of digital technologies that have the potential for enhancing the way work is undertaken and the way an organisation operates. Such technologies include, but are not limited to, Artificial Intelligence, Blockchain, Internet of Things, Machine Learning, Radio-Frequency Identification (RFID) and Near-Field Communication, Virtual and Augmented Reality
- Digital Transformation of the way: individual employees work, products/services are marketed and sold to customers, information is communicated to salient stakeholders including internal employees and external partners
- IS Strategy & Planning from the perspective of the Chief Digital Officer (CDO), including the work that the CDO undertakes in collaboration with other C-suite officers, as well as employees throughout the organisation
- Models of digital technology adoption and change, and their application to specific organisations

#### 2. Reading List

##### 2.1 Compulsory Readings

*(Compulsory readings can include books, book chapters, or journal/magazine articles. There are also collections of e-books, e-journals available from the CityU Library.)*

1.	Nil
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##### 2.2 Additional Readings

*(Additional references for students to learn to expand their knowledge about the subject.)*

1.	Kane, G.C. et al. (2019) <i>The Technology Fallacy: How People are the Real Key to Digital Transformation Management</i> , MIT Press. 978-0262039680
2.	Siebel, T.M. (2019) <i>Digital Transformation: Survive and Thrive in an Era of Mass Extinction</i> , Rosetta Books. 978-1948122481
3.	Vaz, N. (2021) <i>Digital Business Transformation: How Established Companies Sustain Competitive Advantage from Now to Next</i> , Wiley. 9781119758679

- Updated SYL template in July 2017.
- Updated content in December 2021