

City University of Hong Kong
Course Syllabus

offered by Department of Information Systems
with effect from Semester A 2022 / 2023

Part I Course Overview

| | |
|--|---|
| Course Title: | Information Technology Based Business Transformation |
| Course Code: | IS5743 |
| Course Duration: | One Semester (13 weeks) |
| Credit Units: | 3 |
| Level: | P5 |
| Medium of Instruction: | English |
| Medium of Assessment: | English |
| Prerequisites: <i>(Course Code and Title)</i> | Nil |
| Precursors: <i>(Course Code and Title)</i> | IS5313 Foundations of Information and Electronic Business Systems |
| Equivalent Courses: <i>(Course Code and Title)</i> | IS6643 Information Technology Based Organization Transformation |
| Exclusive Courses: <i>(Course Code and Title)</i> | Nil |

Part II Course Details

1. Abstract

This course aims to:

- provide students with knowledge and experience relevant to business transformation and business process management, and
- enable students to apply information technology (IT) to enable and facilitate business transformation.

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. | Describe the key essence of process-oriented organizations and the evolution of management philosophy related to business transformation. | 25% | | | |
| 2. | Apply a disciplined business process management methodology and propose IT-based solutions. | 30% | ✓ | ✓ | |
| 3. | Deploy and implement technology and enterprise systems to enable business transformation. | 20% | | | |
| 4. | Manage changes due to IT-based business transformation and identify the key success factors of business transformation. | 25% | ✓ | ✓ | |
| | | 100% | | | |

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 self-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. Teaching and Learning Activities (TLAs)

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

| TLA | Brief Description | CILO No. | | | | Hours/week (if applicable) |
|--------------------|---|----------|---|---|---|-------------------------------|
| | | 1 | 2 | 3 | 4 | |
| TLA1: Seminar | The seminars will cover such topics as environmental analyses for business transformation, business process management in the digital age, strategy and BPM, design thinking, process-oriented organizations, business process reengineering (BPR), the role of IT in business transformation, enterprise resource planning (ERP), enterprise systems, evolution of management philosophy in business transformation, the Leavitt Diamond model of organization adaptation, business process modelling, organization change management, and critical success factors for business transformation. | ✓ | ✓ | ✓ | ✓ | |
| TLA2: Case Studies | Throughout the semester, students will apply and integrate what they learn through classroom discussions and readings into real-world mini-cases. Students are expected to participate actively in in-class discussions to gain an in-depth understanding of the key issues related to the cases. | | ✓ | ✓ | ✓ | |
| TLA3: Project | Students will conduct group projects to apply the concepts learned in class, and use creative and critical thinking skills to communicate the ideas and results of their work. | ✓ | ✓ | | ✓ | |

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: 50% | | | | | | |
| <u>AT1: Continuous Assessment and Self-Reflection</u> The instructor encourages a two-way, interactive learning environment, thus students are expected to participate actively in class. The participation grade will be based on both in-class and online reflective journals (Canvas) participation. | ✓ | ✓ | ✓ | ✓ | 20% | |
| <u>AT2: Project</u> Students will work in teams on a project. Students can either: <ul style="list-style-type: none"> a) Analyse an existing organization, business and processes, then suggest an IT-based transformation solution, or b) Critique a transformation project of an organization that uses information technology to bring advantages to the organization. | ✓ | ✓ | | ✓ | 30% | |
| Examination: 50% (duration: one 2-hour exam) | | | | | | |
| | | | | | | 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 in Semester A 2022/23 and thereafter

| Assessment Task | Criterion | Excellent (A+, A, A-) | Good (B+, B) | Marginal (B-, C+, C) | Failure (F) |
|-----------------------|--|-----------------------|--------------|----------------------|-----------------------------------|
| Continuous Assessment | <p>[CILOs 1, 2, 3, 4] Participation in Seminars/ Case Discussions</p> <ul style="list-style-type: none"> Attribute to contribute to class discussion actively by asking excellent questions and responding to others' questions frequently and proactively Ability to demonstrate the ability to solve many real problems by applying knowledge learned in the class Ability to contribute to case discussions proactively and demonstrate a deep understanding of the key issues involved in the cases | High | Significant | Basic | Not even reaching marginal levels |
| Project | <p>[CILO 1] Introduction and Background (business environment, and justification of the choice of the process to be transformed)</p> <ul style="list-style-type: none"> Ability to demonstrate a strong justification of the need for business transformation based on environmental analyses Ability to provide rich, relevant material based on information from multiple sources Ability to use well-structured and grammatically correct description | High | Significant | Basic | Not even reaching marginal levels |
| | <p>[CILO 2] Redesign of a Business Process</p> <ul style="list-style-type: none"> Ability to appropriately apply the 5-phases model to redesign the process Ability to clearly describe the scope of the business process to be redesigned Ability to adequately and appropriately apply the redesign principles and tactics Ability to propose a well-justified, innovative redesign solution Ability to propose alternative redesigns which are considered and ruled out convincingly | High | Significant | Basic | Not even reaching marginal levels |
| | <p>[CILO 4] Implementation</p> <ul style="list-style-type: none"> Ability to propose actionable, most suitable suggestions to facilitate the implementation of the project Ability to identify the most relevant, key success factors of the project | High | Significant | Basic | Not even reaching marginal levels |

| | | | | | |
|-------------------|---|------|-------------|-------|-----------------------------------|
| Final Examination | <p>[CILO 1] Key concepts and management approach to business transformation</p> <ul style="list-style-type: none"> Ability to effectively distinguish between radical redesign and incremental improvement of business processes Ability to effectively identify needs for organization transformation based on an environmental analysis Ability to demonstrate evidence of deep understanding of the essence of business processes | High | Significant | Basic | Not even reaching marginal levels |
| | <p>[CILO 2, 3] Design a new business process or redesign an existing business process</p> <ul style="list-style-type: none"> Ability to effectively identify organizational needs for business transformation based on an internal analysis Ability to identify the most suitable team members for the transformation project Ability to set up the most appropriate goals and objectives for the transformation project Ability to appropriately model a business process Ability to effectively identify new processes or the key weaknesses of an existing business process Ability to effectively identify the principles and tactics that are most suitable for a transformation project and appropriately apply them Ability to propose a very suitable IT-based solution to achieve the transformation objectives | High | Significant | Basic | Not even reaching marginal levels |
| | <p>[CILO 4] Implementation of organization transformation</p> <ul style="list-style-type: none"> Ability to propose actionable, most suitable advice to facilitate the organization transformation by various models Ability to effectively identify the key success factors of a process transformation project | High | Significant | Basic | Not even reaching marginal levels |

Applicable to students admitted before Semester A 2022/23

| Assessment Task | Criterion | Excellent (A+, A, A-) | Good (B+, B, B-) | Fair (C+, C, C-) | Marginal (D) | Failure (F) |
|-----------------------|--|-----------------------|------------------|------------------|--------------|-----------------------------------|
| Continuous Assessment | <p>[CILOs 1, 2, 3, 4] Participation in Seminars/ Case Discussions</p> <ul style="list-style-type: none"> Attribute to contribute to class discussion actively by asking | High | Significant | Moderate | Basic | Not even reaching marginal levels |

| | | | | | | |
|---------|---|------|-------------|----------|-------|-----------------------------------|
| | <p>excellent questions and responding to others' questions frequently and proactively</p> <ul style="list-style-type: none"> • Ability to demonstrate the ability to solve many real problems by applying knowledge learned in the class • Ability to contribute to case discussions proactively and demonstrate a deep understanding of the key issues involved in the cases | | | | | |
| Project | <p>[CILO 1] Introduction and Background (business environment, and justification of the choice of the process to be transformed)</p> <ul style="list-style-type: none"> • Ability to demonstrate a strong justification of the need for business transformation based on environmental analyses • Ability to provide rich, relevant material based on information from multiple sources • Ability to use well-structured and grammatically correct description | High | Significant | Moderate | Basic | Not even reaching marginal levels |
| | <p>[CILO 2] Redesign of a Business Process</p> <ul style="list-style-type: none"> • Ability to appropriately apply the 5-phases model to redesign the process • Ability to clearly describe the scope of the business process to be redesigned • Ability to adequately and appropriately apply the redesign principles and tactics | High | Significant | Moderate | Basic | Not even reaching marginal levels |

| | | | | | | |
|-------------------|---|------|-------------|----------|-------|-----------------------------------|
| | <ul style="list-style-type: none"> • Ability to propose a well-justified, innovative redesign solution • Ability to propose alternative redesigns which are considered and ruled out convincingly | | | | | |
| | <p>[CILO 4] Implementation</p> <ul style="list-style-type: none"> • Ability to propose actionable, most suitable suggestions to facilitate the implementation of the project • Ability to identify the most relevant, key success factors of the project | High | Significant | Moderate | Basic | Not even reaching marginal levels |
| Final Examination | <p>[CILO 1] Key concepts and management approach to business transformation</p> <ul style="list-style-type: none"> • Ability to effectively distinguish between radical redesign and incremental improvement of business processes • Ability to effectively identify needs for organization transformation based on an environmental analysis • Ability to demonstrate evidence of deep understanding of the essence of business processes | High | Significant | Moderate | Basic | Not even reaching marginal levels |
| | <p>[CILO 2, 3] Design a new business process or redesign an existing business process</p> <ul style="list-style-type: none"> • Ability to effectively identify organizational needs for business transformation based | High | Significant | Moderate | Basic | Not even reaching marginal levels |

| | | | | | | |
|--|--|------|-------------|----------|-------|-----------------------------------|
| | <ul style="list-style-type: none"> on an internal analysis • Ability to identify the most suitable team members for the transformation project • Ability to set up the most appropriate goals and objectives for the transformation project • Ability to appropriately model a business process • Ability to effectively identify new processes or the key weaknesses of an existing business process • Ability to effectively identify the principles and tactics that are most suitable for a transformation project and appropriately apply them • Ability to propose a very suitable IT-based solution to achieve the transformation objectives | | | | | |
| | <p>[CILO 4] Implementation of organization transformation</p> <ul style="list-style-type: none"> • Ability to propose actionable, most suitable advice to facilitate the organization transformation by various models • Ability to effectively identify the key success factors of a process transformation project | High | Significant | Moderate | Basic | 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.)

Business Transformation, Digital Transformation, Environmental Analyses for Business Transformation, Business Process Management, Design Thinking, Alignment of Business Model and Processes, the Role of IT in Business Transformation, Evolution of Management Philosophy in Business Transformation, Artificial Intelligence in BPM, Workflow Management, Enterprise Systems, the Leavitt Diamond Model; BPR Methodology; IT Integration; Change Management; and Critical Success Factors.

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.)

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| 1. | Nil |
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2.2 Additional Readings

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

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| 1. | Lars Reinkemeyer, "Process Mining in Action: Principles, Use Cases and Outlook", 1 st edition, Springer, 2020. |
| 2. | Jace An, "77 Building Blocks of Digital Transformation: The Digital Capability Model", Story Tree FDC, 2019. |
| 3. | David L, Rogers, "The Digital Transformation Playbook : Rethink Your Business for the Digital Age", Columbia University Press 2016. |
| 4. | Jan vom Brocke and Theresa Schmiedel, "BPM - Driving Innovation in a Digital World", Springer, 2015. |
| 5. | El Sawy, O.A., "Redesigning Enterprise Processes for e-Business", McGraw-Hill, 2001. |

- Updated assessment rubrics in June 2021
- Updated reading list in May 2020
- Updated SYL template in July 2017
- Updated syllabus content in June 2018