

**City University of Hong Kong**

**Information on a Course  
offered by Department of Information Systems  
with effect from Semester B in 2012 / 2013**

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**Part I**

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|------------------------|---|
| Course Title:          | Information Technology Based Organization Transformation          |
| Course Code:           | IS5743  |
| Course Duration:       | One Semester (13 Weeks)   |
| No. of Credit Units:   | Three   |
| Level:                 | P5  |
| Medium of Instruction: | English   |
| Prerequisites:         | Nil   |
| Precursors:            | IS5313 Foundations of Information and Electronic Business Systems |
| Equivalent Courses:    | IS6643 Information Technology Based Organization Transformation   |
| Exclusive Courses:     | IS6643 Information Technology Based Organization Transformation   |

**Part II**

**1. Course Aims:**

This course aims to:

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

## 2. Course Intended Learning Outcomes (CILOs)

*Upon successful completion of this course, students should be able to:*

| No. | CILOs   | Weighting | PILO<br>(MSc.EBKM) |
|-----|---|-----------|--------------------|
| 1.  | Describe the key essence of process-oriented organizations and the evolution of management philosophy related to organization transformation. | 1         | P2                 |
| 2.  | Apply a disciplined business process redesign methodology and propose IT-based redesign solutions.  | 3         | P3                 |
| 3.  | Deploy and implement enterprise systems to enable organization transformation.  | 1         | P1                 |
| 4.  | Manage changes due to IT-based organization transformation and identify the key success factors of organization transformation.               | 2         | P3, P4             |

(3: Relatively most focused ILOs; 2: moderately focused ILOs; 1: less focused ILOs)

## 3. Teaching and learning Activities (TLAs)

*(designed to facilitate students' achievement of the CILOs)*

Seminar/Workshop: 39 hours

### **TLA1: Lecture**

The lectures will cover such topics as environmental analyses for organization transformation, process-oriented organizations, business process reengineering (BPR), the role of IT in organization transformation, enterprise resource planning (ERP), enterprise systems, evolution of management philosophy in organization transformation, the Leavitt Diamond model of organization adaptation, BPR methodology, identification of business processes to be redesigned, scoping of a business process, business process modelling, analysis, and redesign, generic strategies for business process redesign, principles and tactics for business process redesign, IT integration in the context of redesigned business processes, organization change management, and critical success factors for organization transformation.

### **TLA2: Case Studies and Role-Play**

Throughout the semester, students will apply and integrate what they learn through classroom discussions and readings into real-world mini-cases. On top of the mini-cases, students will be asked to submit written reports for three cases.

To get in-depth understanding of the cases, role-playing exercises will be conducted in the class to simulate a scenario described in a real-world case. Students will take different roles in the exercises and key issues related to the successful implementation of organization transformation will be addressed in the exercises.

### **TLA3: Project**

Business Process Reengineering is best learned by doing it. Therefore, the term project will be an exercise in reengineering.

Students will work in a team of **4** members (3 members will be allowed in exceptional cases). You will choose your own partners. Each team should submit the group formation form by the end of **week 4**. **Students are encouraged to form your group ASAP.**

Project teams can choose one of the two approaches:

*Approach 1 – Redesign approach:* 1) analyze a currently existing organization process, and 2) seek to reengineer it (i.e., suggest a reengineered solution).

*Approach 2 – Criticizing approach:* 1) identify a local (HK or Mainland) organization with a business process reengineering project that uses information technology to bring advantages to the organization, and 2) describe and critique the reengineering project, and provide an alternative solution to the project.

Each team will write a report summarizing the findings and present their project in week 12. The due times of the three phase of the project are as follows:

- *Project Proposal:* by **Week 6**, each team should hand in a **1~2 page** description of the company they intend to study and the study plan.
- *Progress Report:* by **Week 9**, each team should hand in a **1~2 page** report summarizing the activities that have been conducted and the remaining activities and the problems faced in the BPR project. This report should be written in **bullet** form and it is **different** from the partial project report (i.e., you shall not include the contents of the sections of the final report that you've done).
- *Project Presentation and PPT Slides:* by **Week 12** prior to the project presentations. The PPT slides are to be submitted in hard copy in class. In addition, the electronic version of the PPT slides should also be emailed to be instructor before **Week 12's class**.

| CILO No | TLA1:<br>Lectures | TLA2:<br>Case Studies &<br>Role-playing | TLA3: Project | Hours/week<br>(if applicable) |
|---------|-------------------|---|---------------|-------------------------------|
| CILO 1  | 2                 |   | 1             | ---                           |
| CILO 2  | 2                 | 1                                       | 2             | ---                           |
| CILO 3  | 2                 | 2                                       |               | ---                           |
| CILO 4  | 2                 | 1                                       | 2             | ---                           |

(1: Minor focus on the ILO; 2: Main focus on the ILO)

#### 4. Assessment Tasks/Activities

(designed to assess how well the students achieve the CILOs)

##### **AT1: Continuous Assessment and Self-Reflection (22%)**

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 (Blackboard) participation. The 22% of the grade allocated is not a gift, and will only be given to students who prepare for discussion and participate *actively* in the class. In particular, three components will be evaluated:

- Attend class and participate in discussions to which you have something substantive to add, and make several significant contributions, i.e., insightful questions or comments. It is also desirable to draw from your experience that is relevant to a discussion. To ensure that the instructor knows who you are, you are recommended to bring a *nameplate* to every class. (about 15%)
- Reflection journals: you will briefly summarize what you've learned from the class and report your self-reflection in the discussion forum in the Blackboard. Students are required to write at least 5 journals (one for each class). Normally students will focus on (1) the key messages you've learned and (2) some critical thinking about the topic of the class. (about 5%)
- Follow the Blackboard discussion forum, answer other students' questions, and make several significant contributions (i.e., insightful questions or comments). (about 2%)

##### **AT2: Case Reports (20%)**

To encourage students to better prepare for the case discussions, three case reports will be required to submit before the discussions.

- Maybelline Case Report (5% of course grade)
- FoxMeyer Case Report (5% of course grade)
- Vicro Case Report (10% of course grade).

##### **AT3: Project (18%)**

The project will be marked using the following scheme:

- Progress Report (3% of course grade)
- Presentation (15% of course grade).

##### **AT4: Final Examination (40%)**

The final exam (2 hours) will be an open book exam. It will cover all readings assigned in the class, the lectures and the tutorials including the cases and examples mentioned in the class.

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

| CILO No | AT1: Continuous Assessment (22%) | AT2: Cases (20%) | AT2: Project (18%) | AT4: Final Examination (40%) | Remarks   |
|---------|----------------------------------|------------------|--------------------|------------------------------|---|
| CILO 1  | 2                                |                  | 1                  | 2                            | 1: Minor focus on the ILO;<br>2: Main focus on the ILO) |
| CILO 2  | 2                                | 1                | 2                  | 2                            |   |
| CILO 3  | 2                                | 2                |                    | 1                            |   |
| CILO 4  | 2                                | 1                | 2                  | 1                            |   |

## **5. Grading of Student Achievement:**

Refer to Grading of Courses in the Academic Regulations for Taught Postgraduate Degrees.

Standard grading pattern: A+, A, A- ... C-, D, F

(see the rubrics attached)

## **Part III**

Keyword Syllabus:

Business Process; Business Process Reengineering (BPR); Workflow Management; Business Process Management (BPM); Enterprise Systems, Enterprise Resource Planning (ERP), the Leavitt Diamond Model; BPR Methodology; BPR Tool; Principles and Tactics for BPR; IT Integration; Change Management; and Critical Success Factors.

Detailed Syllabus:

- Environmental analyses for organizational transformation: characteristics of today's changing business environments and organizational needs for transformation.
- Process-oriented organizations: rationale and properties of business processes, need for process-oriented organizations.
- IT for organization transformation: how IT changes business processes, innovative applications of IT in organizations, and role of IT for business process redesign.
- Adaptation to organization transformation: the Leavitt Diamond Model.
- Evolution of business process improvement: Total Quality Management (TQM), BPR, Time-based Competition, Incremental improvement vs. radical redesign of business process.
- ERP system as a way of automation, integration, and reengineering of the processes.
- Major elements of "traditional" ERP systems.
- Expanded scope of Enterprise systems (ERP + Supply Chain Management + Customer Relationship Management + Business Intelligence)
- Strategy of ERP implementation and Critical Successful Factors of ERP implementation
- BPR Methodology: the 5-Phases Model, triggers for BPR, identification of business processes to be redesigned, BPR project mobilization, business process modelling, analysis, and redesign.
- BPR Tools: activity decision flow diagrams for business process modeling, analysis, diagnosis, and redesign of business processing using BPR tools.
- Business process redesign: generic strategies, principles and tactics, IT-based solutions for business process redesign.
- BPR in Hong Kong: BPR in the banking industry of HK.
- IT integration: IT platforms for business process integration.
- Implementation of organization transformation: change management, people issues.
- Redesign Supply Chain Processes: challenges in supply chain management, role of IS in supply chain management, the Outside-In approach to supply chain process redesign.
- Critical Success Factors for BPR.

Recommended Readings:

Hestermann, C. and Woods, J., "Q&A: What ERP Is and What the Associated Terms Really Mean," *Gartner Research*, 18-Nov.-2009.

Ganly, D., "Address Five Key Factors for Successful ERP Implementations," *Gartner Research*, 29-Aug.-2008.

Hamel, G., "The Why, What, and How of Management Innovation," Harvard Business Review (84:2) 2006, pp 72-84.

Johnson, L.K., "Successful Business Process Outsourcing," MIT Sloan Management Review (47:2) 2006, pp 5-6.

Hammer, M., "Deep Change," Harvard Business Review (82:4) 2004, pp 84-93.

S. Rivard, B. Aubert, M. Patry, G. Paré and H. Smith, Information Technology and Organizational Transformation, Elsevier, 2004.

Zhang, L., Lee, M.K.O., Zhang, Z. and Banerjee, P., "Critical Success Factors of Enterprise Resource Planning Systems Implementation Success in China," *Proceedings of the 36th Hawaii International Conference on System Sciences*, 2003.

El Sawy, O.A., Redesigning Enterprise Processes for e-Business, McGraw-Hill, 2001.

Davenport, T.H., "Putting the Enterprise into the Enterprise System," *Harvard Business Review* (76:4) 1998, pp 121-131.

Grover, V. and Malhotra, M.K., "Business process reengineering: A tutorial on the concept, evolution, method, technology and application," Journal of Operations Management (15:3) 1997, pp 193-213.

Hammer, M., "Reengineering Work: Don't Automate, Obliterate," Harvard Business Review (68:4) 1990, pp 104-112.

Davenport, T.H. and Short, J.E., "The New Industrial Engineering: Information Technology and Business Process Redesign," MIT Sloan Management Review (31:4) 1990, pp 11-27.

## IS5743: Information Technology Based Organization Transformation – Assessment Rubrics

(H: High weighting; M: Medium weighting; L: Low weighting)

### Continuous Assessment:

| Criteria  | Weight | A   | B   | C  | D  |
|---|--------|---|---|--|--|
| [CILOs 1, 2, 4]<br>Participation in Lectures/Case Discussions                   | H      | <ul style="list-style-type: none"> <li>- Be enthusiastic; contribute to class discussion actively by asking excellent questions and responding others' questions frequently and proactively</li> <li>- Demonstrate the ability to solve many real problems by applying knowledge learned in the class</li> <li>- Contribute to case discussions proactively and demonstrate deep understanding of the key issues involved in the cases</li> </ul> | <ul style="list-style-type: none"> <li>- Be active; contribute to class discussion by asking good and relevant questions and answering other's questions occasionally</li> <li>- Demonstrate the ability to solve some real problems by applying knowledge learned in the class</li> <li>- Contribute to case discussions and demonstrate fair understanding of the key issues involved in the cases</li> </ul> | <ul style="list-style-type: none"> <li>- Be active when prompted; contribute to discussion by responding to questions when asked</li> <li>- Occasionally demonstrate the ability to solve some real problems by applying knowledge learned in the class</li> <li>- Contribute to case discussions and demonstrate fair understanding of relevant issues involved in the cases</li> </ul> | <ul style="list-style-type: none"> <li>- Be occasionally active when urged; respond to questions when repeatedly asked</li> <li>- Contribute to case discussions when urged and demonstrate limited understanding of relevant issues involved in the cases</li> </ul>  |
| [CILOs 1, 2, 3, 4]<br>Self-Reflection through Weekly Journals in the Blackboard | M      | <ul style="list-style-type: none"> <li>- Demonstrate critical reflections in most of the weekly journals</li> <li>- Demonstrate the ability to solve many real problems by applying knowledge learned in the class</li> <li>- Address concerns and issues raised in others' weekly journals proactively</li> </ul>  | <ul style="list-style-type: none"> <li>- Demonstrate critical reflections in many of the weekly journals</li> <li>- Demonstrate the ability to solve some real problems by applying knowledge learned in the class</li> <li>- Address concerns and issues raised in others' weekly journals occasionally</li> </ul>   | <ul style="list-style-type: none"> <li>- Demonstrate critical reflections in some of the weekly journals</li> <li>- Seldom demonstrate the ability to solve real problems by applying knowledge learned in the class</li> <li>- Address concerns and issues raised in others' weekly journals occasionally</li> </ul>  | <ul style="list-style-type: none"> <li>- Seldom demonstrate critical reflections in the weekly journals</li> <li>- Seldom demonstrate the ability to solve real problems by applying knowledge learned in the class</li> <li>- Seldom address concerns and issues raised in others' weekly journals</li> </ul> |

### Case:

| Criteria                        | Weight | A  | B   | C   | D   |
|---------------------------------|--------|--|---|---|---|
| [CILOs 2, 3, 4]<br>Case Reports | H      | <ul style="list-style-type: none"> <li>- Able to identify most the key issues involved in a case</li> <li>- Able to provide an innovative solution to the problem in the case</li> <li>- Able to provide rich critical thinking about the business case</li> </ul> | <ul style="list-style-type: none"> <li>- Able to identify some key issues involved in a case</li> <li>- Able to provide a good solution to the problem in the case</li> <li>- Able to provide some critical thinking about the business case</li> </ul> | <ul style="list-style-type: none"> <li>- Able to identify relevant issues involved in a case</li> <li>- Able to provide a reasonable solution to the problem in the case</li> </ul> | <ul style="list-style-type: none"> <li>- Able to identify relevant issues involved in a case</li> <li>- Able to provide a poor solution to the problem in the case</li> </ul> |

**Project:**

| Project section   | Weight | A  | B  | C  | D   |
|---|--------|--|--|--|---|
| [CILO 1]<br>Introduction and Background (business environment, and justification of the choice of the process to be redesigned) | M      | <ul style="list-style-type: none"> <li>- Strong justification of the need for organization transformation based on environmental analyses</li> <li>- Rich, relevant material based on information from multiple sources</li> <li>- Well-structured and grammatically correct description</li> </ul>  | <ul style="list-style-type: none"> <li>- Good justification of the need for organization transformation based on environmental analyses</li> <li>- Material is based on information from multiple sources</li> <li>- Well-structured and grammatically correct description</li> </ul>  | <ul style="list-style-type: none"> <li>- Acceptable justification of the need for transformation of the organization based on environmental analyses</li> <li>- Material is based on information from 2~3 sources</li> <li>- Reasonably structured with some grammatical mistakes</li> </ul>   | <ul style="list-style-type: none"> <li>- Poor justification of the need for organization transformation based on environmental analyses</li> <li>- Material is primarily based on information from a single source</li> <li>- poorly structured description with many grammatical mistakes</li> </ul>                   |
| [CILO 2]<br>Redesign of a Business Process  | H      | <ul style="list-style-type: none"> <li>- Appropriately apply the 5-phases model to redesign the process</li> <li>- Clearly describe the scope of the business process to be redesigned</li> <li>- Adequately and appropriately apply the redesign principles and tactics</li> <li>- Propose a well-justified, innovative redesign solution</li> <li>- Alternative redesigns are considered and ruled out convincingly</li> </ul> | <ul style="list-style-type: none"> <li>- Apply the 5-phases model to redesign the process in a good manner</li> <li>- Describe the scope of the business process to be redesigned</li> <li>- Apply the redesign principles and tactics in a good manner</li> <li>- Propose a well-justified or innovative redesign solution</li> </ul> | <ul style="list-style-type: none"> <li>- Mechanically apply the 5-phases model to redesign the process</li> <li>- Describe the scope of the business process to be redesigned</li> <li>- Apply some of the redesign principles and tactics in an acceptable manner</li> <li>- Propose an acceptable redesign solution, but the solution is not innovative or lacks strong justification</li> </ul> | <ul style="list-style-type: none"> <li>- Mechanically apply the 5-phases model to redesign the process</li> <li>- Poorly describe the scope of the business process to be redesigned</li> <li>- Inappropriately apply any of the redesign principles and tactics</li> <li>- Propose a poor redesign solution</li> </ul> |
| [CILO 4]<br>Implementation  | M      | <ul style="list-style-type: none"> <li>- Propose actionable, most suitable suggestions to facilitate the implementation of the project</li> <li>- Identify the most relevant, key success factors of the project</li> </ul>  | <ul style="list-style-type: none"> <li>- Propose many relevant suggestions to facilitate the implementation of the project</li> <li>- Identify most of the relevant, key success factors of the project</li> </ul>   | <ul style="list-style-type: none"> <li>- Propose some relevant suggestions to facilitate the implementation of the project</li> <li>- Identify some relevant, key success factors of the project</li> </ul>  | <ul style="list-style-type: none"> <li>- Propose irrelevant suggestions to facilitate the implementation of the project</li> <li>- Fail to identify any relevant, key success factors of the project</li> </ul>   |



## Final Examination:

The list below is an indication of the importance of different CILOs to be assessed during the final examination.

(H: High weighting; M: Medium weighting; L: Low weighting)

| Criteria  | Weight | A  | B   | C   | D   |
|---|--------|--|---|---|---|
| [CILO 1]<br>Key concepts and management approaches to organization transformation | L      | <ul style="list-style-type: none"> <li>- Effectively distinguish between radical redesign and incremental improvement of business processes</li> <li>- Effectively identify needs for organization transformation based on an environmental analysis</li> <li>- Evidence of deep understanding of the essence of business processes</li> </ul>   | <ul style="list-style-type: none"> <li>- Distinguish between radical redesign and incremental improvement of business processes</li> <li>- Identify many salient needs for organization transformation based on an environmental analysis</li> <li>- Evidence of good understanding of the essence of business processes</li> </ul>   | <ul style="list-style-type: none"> <li>- Distinguish between radical redesign and incremental improvement of business processes</li> <li>- Identify some salient needs for organization transformation based on an environmental analysis</li> <li>- Evidence of fair understanding of the essence of business processes</li> </ul>   | <ul style="list-style-type: none"> <li>- Fail to distinguish between radical redesign and incremental improvement of business processes</li> <li>- Identify some needs for organization transformation based on an environmental analysis</li> <li>- Poor understanding of the essence of business processes</li> </ul>   |
| [CILO 2, 3]<br>Redesign a business process  | H      | <ul style="list-style-type: none"> <li>- Effectively identify organizational needs for organizational transformation based on an internal analysis</li> <li>- Identify the most suitable team members for the redesign project</li> <li>- Set up the most appropriate goals and objectives for the redesign project</li> <li>- Appropriately model a business process</li> <li>- Effectively identify the key weaknesses of an existing business process</li> <li>- Effectively identify the redesign principles and tactics that are most suitable to a redesign project and appropriately apply them</li> <li>- Proposal a very suitable IT-based solution to achieve the redesign objectives</li> </ul> | <ul style="list-style-type: none"> <li>- Identify organizational needs for organizational transformation based on an internal analysis</li> <li>- Identify the majority of the most suitable team members for the redesign project</li> <li>- Set up some suitable goals and objectives for the redesign project</li> <li>- Appropriately model a business process</li> <li>- Identify the main weaknesses of an existing business process</li> <li>- Identify many relevant redesign principles and tactics that are suitable to a redesign project and apply them in a good manner</li> <li>- Proposal a reasonable IT-based solution to achieve the redesign objectives</li> </ul> | <ul style="list-style-type: none"> <li>- Identify organizational needs for organizational transformation based on an internal analysis</li> <li>- Identify some of the most suitable team members for the redesign project</li> <li>- Set up some suitable goals and objectives for the redesign project</li> <li>- Model a business process with minor errors</li> <li>- Identify the main weaknesses of an existing business process</li> <li>- Identify some relevant redesign principles and tactics that are suitable to a redesign project and apply them in an acceptable manner</li> <li>- Proposal an acceptable IT-based solution to achieve the redesign objectives</li> </ul> | <ul style="list-style-type: none"> <li>- Fail to identify organizational needs for organizational transformation based on an internal analysis</li> <li>- Fail to identify most of the suitable team members for the redesign project</li> <li>- Fail to set up suitable goals and objectives for the redesign project</li> <li>- Model a business process with major errors</li> <li>- Identify some weaknesses of an existing business process</li> <li>- Fail to identify most of the relevant redesign principles and tactics that are suitable to a redesign project and fail to apply them appropriately</li> <li>- Proposal a poor IT-based solution that is difficult to achieve the redesign objectives</li> </ul> |

|   |          |  |   |  |   |
|---|----------|--|---|--|---|
| <p>[CILO 4]<br/>Implementation of organization transformation</p> | <p>M</p> | <ul style="list-style-type: none"> <li>- Propose actionable, most suitable advice to facilitate the organization transformation by applying the Leavitt-diamond model</li> <li>- Effectively identify the key success factors of a process redesign project</li> </ul> | <ul style="list-style-type: none"> <li>- Propose actionable, reasonable advice to facilitate the organization transformation by applying the Leavitt-diamond model</li> <li>- Identify most of the key success factors of a process redesign project</li> </ul> | <ul style="list-style-type: none"> <li>- Propose some acceptable advice to facilitate the organization transformation by applying the Leavitt-diamond model</li> <li>- Identify several key success factors of a process redesign project</li> </ul> | <ul style="list-style-type: none"> <li>- Fail to propose actionable advice to facilitate the organization transformation by applying the Leavitt-diamond model</li> <li>- Fail to identify any key success factors of a process redesign project</li> </ul> |
|---|----------|--|---|--|---|