**THE CHINESE UNIVERSITY OF HONG KONG**

**Department of Systems Engineering & Engineering Management**

2019-2020 / (1st  Term)

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| **Course Code & Title:** SEEM 3430 “Information System Analysis and Design” |

**Instructors and Teaching Assistants**

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| **Instructor** |  |
| Name | Professor Kam-Fai WONG |
| Office | Room 601, Ho Sin Hang Engineering Building |
| Telephone | 3943 8220 |
| Email | kfwong@se.cuhk.edu.hk |

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| **TA** |  |
| Name | Luyang Lin |
| Office | ERB 615 |
| Telephone | 39438498 |
| Email | lylin@se.cuhk.edu.hk |
| Office Hour | Friday 9:00 – 12:00 |
|  |  |
| Name | Xingshan Zeng |
| Office | ERB 711 |
| Telephone | 39438461 |
| Email | xszeng@se.cuhk.edu.hk |
| Office Hour | Tuesday 14:00 – 17:00 |

**Course Description & Content**

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| Information Systems are critical tools in today’s business world. Therefore, its analysis and design are important to companies for effective business operations, eg for management of finance-, inventory-, logistics-, etc. Information System Analysis and Design (ISAD) is an exciting active field in which analysts continually learn new techniques and approaches to develop information systems more effectively and efficiently. There is a core set of skills, which all analysts need to know irrespective of approaches and methodology they use. All information systems project undergo four phases, namely planning, analysis, design and implementation. All IS projects require analysts to collect requirements, model the business needs, and create blue prints for how the IS should be developed; and all projects require the understanding of organizational behavior concepts like change management and team building.  This course introduces the basic operational requirements and skills involved in the aforesaid four phases in SAD. It is complemented by real case study, which enables students to put SAD in practice. |

**Learning Outcomes**

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| *List what you expect students to achieve in the course.*  SEEM3430 students learn how to use formal tools and techniques based on DFD (Data-Flow-Diagram), ERD (Entity-Relationship-Diagram) and SC (Structural-Chart) to analyze and design new Information Systems |

**Learning Activities**

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| **Activities** | **Number of Hours** | | **Nature of Activities** |
| Lecture | In class | 34 | M |
| Outside class |  |  |
| Interactive Tutorial | In class | 10 | M |
| Outside class |  |  |
| Laboratory Work | In class |  |  |
| Outside class |  |  |
| Group Discussion | In class |  |  |
| Outside class |  |  |
| Field Trip | In class |  |  |
| Outside class |  |  |
| Project | In class |  |  |
| Outside class | 24 | M |
| Assignment | In class |  |  |
| Outside class | 9 | M |
| Reading | In class |  |  |
| Outside class | 10 | O |
| Other (invited industrial talks) | In class | 2 | M |
| Outside class |  |  |

M: Mandatory activity in the course

O: Optional activity

**Learning Resources**

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| *List textbooks, reference books, articles, etc.*  [**Systems Analysis and Design, 6th Edition International Student Version**](http://as.wiley.com/WileyCDA/WileyTitle/productCd-EHEP002439.html)  by Roberta M. Roth, Alan Dennis, Barbara Haley Wixom  October 2014, Publisher: John Wiley and Son.  *Include class website URL*  <http://www.se.cuhk.edu.hk/~seem3430> |

**Assessment Scheme**

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| **Task nature** | **Weight** |
| 1. Group Project (4 students) in 4 phases (50%):    1. Requirement Specification    2. System Analysis    3. Demo/presentation    4. Final Report 2. Final Exam (50%) | 6%  9%  15%  20%  50%  --------  100% total |

**Course Schedule (Subject to final confirmation)**

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| **Class/Week** | **Date** | **Topic** | **Requirements** |
| 1 | 3.9.2019 1130h-1315h  (LHC 101) | Systems Analyst and Information Systems Development | Chapter 1 |
| 1 | 5.9.2019  1630h-1715h  (LHC 106) | Continue….. | Chapter 1 |
| 2 | 10.9.2019 | Continue | Chapter 1 |
| 2 | 12.9.2019 | Continue | Chapter 1 |
| 3 | 17.9.2019 | Project Selection and Management | Chapter 2 |
| 3 | 19.9.2019 | Continue | Chapter 2 |
| 4 | 24.9.2019 | Continue | Chapter 2 |
| 4 | 26.9.2019 | Continue | Chapter 2 |
| 5 | 1.10.2019 | National Day | No-Class |
| 5 | 3.10.2019 | Requirements Determination | Chapter 3 |
| 6 | 8.10.2019 | Continue | Chapter 3 |
| 6 | 10.10.2019 | Guest Lecture | SA in Practice |
| 7 | 15.10.2019 | User Case | Chapter 4 |
| 7 | 17.10.2019 | Process Modeling | Chapter 5 |
| 7 | 18.10.2019 | Task-1: Requirement Specification due | submission |
| 8 | 22.10.2019 | Continue …. | Chapter 5 |
| 8 | 24.10.2019 | Continue (intro of UML) | Chapter 5 |
| 9 | 29.10.2019 | Invited Seminar:  Case Study | Invited Speaker |
| 9 | 31.10.2019 | Data Modeling | Chapter 6 |
| 9 | 1.11.2019 | Task-2: System Spec due | submission |
| 10 | 5.11.2019 | Moving into Design | Chapter 7 |
| 10 | 7.11.2019 | Congregation | No Class |
| 11 | 12.11.2019 | Continue ….. | Chapter 7 |
| 11 | 14.11.2019 | Architectural Design | Chapter 8 |
| 12 | 19.11.2019 | Continue…….. | Chapter 8 |
| 12 | 21.11.2019 | Program Design | Chapter 10 |
| 13 | 26.11.2019 | Continue | Chapter 10 |
| 13 | 28-29.11.2019 | Make-up (tentative) | |
| 13 | 29.11.2019 | Task-3: Final Report due | submission |
| 13 | TBD | Demo Presentation | Presentation |
| 14+ | 2-13.12.2019 | Exam Week (tentative) | |

**Feedback for evaluation**

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| *State channels through which feedback can be collected.*  Announcement will be make through the course, i.e.:  website: http://www.se.cuhke.du.hk/~seem3430  inquiry through email: [seem3430@se.cuhk.edu.hk](mailto:seem3430@se.cuhk.edu.hk)  feedback through email to seem3430@se.cuhk.edu.hk |

**Academic Honesty**

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| Provide link(s) to information regarding the academic honesty and plagiarism policy in the University for students. Relevant information can be allocated via: <http://www.cuhk.edu.hk/policy/academichonesty/> |