Title (Units): **COMP3009 IS Development Project II (1,1,2)**

Course Aims: This course aims at developing students' ability to apply a methodological approach to the development of information systems, by thorough analysis, good systems design and comprehensive documentation. The project simulates a real-life working environment in the classroom, so that students gain experience of working as team members participating in systems development. The demonstration of development deliverables can improve students' presentation and communication skills.

Prerequisite: COMP2026 Problem Solving Using Object Oriented Programming
COMP2016 Database Management

Co-requisite: COMP3007 Systems Analysis and Design

Course Intended Learning Outcomes (CILOs):
Upon successful completion of this course, students should be able to:

No.	Course Intended Learning Outcomes (CILOs)
	Knowledge
1	Explain what a professional information system development project should contain via the requirements and concerns of all stages of system development life cycle (except systems analysis and design, and construction that are included in other courses)
	Professional Skill
2	Identify and analyze problems. Propose, design, and implement solutions in a group to solve the identified problems using a principled methodology
3	Go through a complete system development life cycle with various development techniques and manage a project in a group. Produce a complete technical project report with all stages of a project documented.
4	Integrate knowledge learned and acquire knowledge from additional sources for solving difficulties encountered in a project
5	Communicate effectively via oral presentations for all stages of a project. Develop communication and time management skills in the context of a group development project as well as related presentation by going through a series of development checkpoints with deadlines
6	Interact with group members and the supervisor (conflict resolution) so as to complete a project

Calendar Description: This course provides a chance to students to apply a methodological approach to the development of information systems. Students will work as a team and go through phases in system development life cycle, and implement solutions to the identified problems. They will also practice the presentation and communication skills in team management, report submission and project demonstration.

Teaching and Learning Activities (TLAs):

CILOs	Type of TLA
1	Students will be guided by the checkpoints described in the development project handbook and also the illustration in lectures, to fulfil the requirements of all stages in the systems development life cycle.
2,3,4	Students will propose the scope and objectives of a development project. Students will identify the problems, propose solutions, and complete an application to achieve the project objectives based on the skills and techniques learned in other courses.
3,5,6	As part of the requirements of the course, students will conduct regular meetings in a team, and with supervisor to discuss and arrange various development tasks.
3,5	Students will prepare a professional technical report in a group and present the development progress at different checkpoints.

Assessment:

No.	Assessment Methods	Weighting	CILOs to be addressed	Description of Assessment Tasks
1	Group Assessment	70%	1-6	Each group is assessed based on the quality of: - overall project analysis - systems design - implementation - project report/documentation - project presentation/demonstration Group assessment measures students' achievements in the Knowledge, Skill, and Attitude domains.
2	Individual Assessment	30%	2,3,4,5,6	Students are assessed individually based on their performance of development work and presentation, and contribution to the project.

Peer assessment will also be used to facilitate students' reflection of their leadership skills and sense of responsibility. Scores from peers are included in group and individual assessment.

Assessment Rubrics:

Excellent (A)	• Achieves all six CILOs, demonstrating a good mastery of both the theoretical and practical aspects of the knowledge and skills associated with stages of information systems development • Able to develop an information system to problems, accompanied by in-depth analysis and insight • Able to draw on a variety of techniques and relevant knowledge and appropriately apply them to new information systems development situations and problems • Able to play a major role in a group and interact proactively with team members and project supervisor • Able to document a comprehensive systems development report • Demonstrates the ability to communicate effectively the project progress and results in oral presentation
Good (B)	• Achieves all six CILOs, demonstrating a good understanding of stages of information systems development • Able to develop an information system to problems, accompanied by adequate analysis • Able to make use of appropriate techniques and knowledge and apply them to information systems development situations and problems • Able to work in a group effectively and interact with team members and project supervisor • Able to document a good systems development report • Demonstrates the ability to communicate the project progress and results in oral presentation
Satisfactory (C)	• Achieves most of the six CILOs, demonstrating a basic level of understanding of stages of information systems development • Able to develop an acceptable an information system to problems

	• Able to make use of some techniques and knowledge and apply them to information systems development situations and problems • Able to cooperate in a group and interact with team members and project supervisor • Able to document a systems development report that fulfills adequate documentation requirement • Demonstrates the ability to communicate the project progress and results in oral presentation in an acceptable level
Marginal Pass (D)	• Achieves most of the six CILOs, with minimal understanding of stages of information systems development • Able to develop an information system to simple problems • Able to apply some techniques and knowledge to a limited extent of information systems development situations and problems • Play a passive role in a group with limited interaction with team members and project supervisor • Able to document part of a systems development report that fulfills minimum documentation requirements • Demonstrates the ability to communicate the project progress and results in oral presentation in a minimum acceptable level
Fail (F)	• Achieves less than three of the six CILOs, with little understanding of stages of information systems development • Unable to develop an information system to simple problems • Unable to apply techniques and knowledge to information systems development situations or problems • Unable to cooperate in a group and no interaction with team members and project supervisor • Unable to demonstrate the ability to document a systems development report • Unable to communicate the project progress and results in oral presentation

Course Content and CILOs Mapping:

Content		**CILO No.**
I	Project Briefing	1
II	Project Topics Selection	2
III	Project Plan	1,3-6
IV	Systems Analysis	1,3-6
V	Systems Design	1,3-6
VI	Implementation	1,3-6

References:
Selected books or articles that are relevant to the topic of the project selected by the students.

- T. Hung, Handbook on Plagiarism, HKBU, 1999.
- John Bowden, Writing A Report, 9th Edition: How to Prepare, Write & Present Really Effective Reports, How To Books, 2011.
- C. Lipson, Doing Honest Work in College: How to Prepare Citations, Avoid Plagiarism, and Achieve Real Academic Success, second edition, Chicago Guides to Academic Life, 2008
- MLA Handbook for Writers of Research Papers, 8th edition. New York : MLA, 2016
- Lester, James D. Writing Research Papers : A Complete Guide, 15th edition. Pearson, 2014.
- Effective Systems Analysis & Design Guide (Appendix. B) [G61b], OGCIO, Hong Kong SAR Government,2015
  (URL: http://www.ogcio.gov.hk/en/infrastructure/methodology/system_development/doc/Effective_SAnD_Guide_Appendix_B.pdf)
- Guidelines for Application Software Testing [G20], OGCIO, Hong Kong SAR Government, 2015
  (URL: http://www.ogcio.gov.hk/en/infrastructure/methodology/system_development/doc/g20.pdf)

Course Content:

Topic

I. Project Briefing

II. Project Topics Selection

III. Project Plan
- A. Project objectives
- B. Feasibility study
- C. Development schedule
- D. Team organization

IV. Systems Analysis
- A. Requirements analysis
- B. Information description
- C. Functional description
- D. Report writing/documentation
- E. Presentation

V. Systems Design
- A. Design description: data, modules, interface, etc.
- B. Prototyping
- C. Report writing/documentation
- D. Presentation

VI. Implementation
- A. Coding
- B. Testing
- C. Demonstration
- D. Report writing and user manuals