Title (Units): **COMP4868 Informatics Project I (3,0,9)**

Course Aims:

The objective of the project is to enable students to carry out a piece of highly independent work which could be an information system development project, an information analytics study, or an academic research project.

At the end of a system development project or an information analytics study, students will be able to demonstrate their mastery of course materials they have learned from the programme and their ability to apply them in the project.

At the end of an academic research project, students will demonstrate the ability to understand, criticize and analyze one specific topic/problem with an original contribution in the field of information systems and analytics. The originality shall be shown either in the discovery of new facts or theories or by the demonstration of innovative, critical thinking.

Prerequisite: Year IV Standing in Computer Science

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

No.	Course Intended Learning Outcomes (CILOs)
	Knowledge
1	Analyze, design, and implement a system to solve a problem using a principled methodology (for system development project and information analytics studies) or explain the actual process of conducting an independent research, with the aim to produce a research paper (for research project)
	Professional Skill
2	Go through a complete system development lifecycle or a research process, and manage a project individually and produce individually a complete technical report/system with all stages of a project documented
3	Identify problems and propose (a) solution(s) to solve the problems and integrate knowledge learned and acquire knowledge from additional sources for solving difficulties encountered in a project
4	Communicate effectively via oral presentations
5	Develop time management skill for finishing and presenting an individual project by going through a series of checkpoints with deadlines and a presentation session with strict time limit
	Attitude
6	Exhibit self-awareness and professional attitude in one's capability to work on a project individually from initial topic selection, up to final project presentation and delivery

Calendar Description:

Students will carry out a piece of highly independent work, which could be a system development project, an information analytics study or an academic research project, under the supervision of a faculty member. A project report and an oral presentation/demonstration are required upon successful completion of the project. Other deliverables for research projects may be a research paper or research prototype.

Teaching and Learning Activities (TLAs):

CILOs	Type of TLA
1, 2, 5	Students will be guided by the checkpoints described in the project handbook and to fulfil the requirements of all stages in the project.
2, 3, 6	Students will identify a problem of a system development, an information analytics study or research project. Then they will propose and implement solutions based on the knowledge and techniques learned in this programme and/or from other sources.
2, 4	Students will conduct regular meetings with a supervisor to discuss and arrange various project tasks.

4	Students will give an oral presentation of the project, and demonstration and/or poster session.

Assessment:

No.	Assessment Methods	Weighting	CILOs to be addressed	Description of Assessment Tasks
1	Continuous Assessment	30%	5, 6	This category covers the assessment of the attitude of the students, the amount of effort the student has put into the project, self discipline, and the general management skills in the project development process. The ingenuity of development and creativity towards achieving the project objectives are considered. The progress reports are also assessed in this category. This category is assessed by the Supervisor only.
2	Project Report	50%	1, 2, 3	[For system development projects and information analytics studies] The grade for this category reflects the quality and the amount of completed work including those of the final report and, if any, the system. Student's ground work, and identification and analysis of the problem will be graded in this category. This category also assesses the efficiency and robustness of the solutions. A balance between completeness of the project and difficulty of the project will also be taken into consideration. Higher grade could be awarded for project originality. [For academic research projects] The grade for this category reflects the quality and the amount of completed work including those of the final report and, if any, the research prototype, algorithms, surveys and experimental evaluation. This category also assesses the performance on literature review, research novelties, originality, technical contribution, quality and quantity work produced.
3	Presentation	20%	4, 5	This category includes oral presentation of the project, and demonstration and/or poster session, if applicable. Communication skills are emphasized.

Assessment Rubrics:

	Excellent (A)	Good (B)	Satisfactory (C)	Marginal Pass (D)	Fail (F)
Methodology	• Use appropriate methodology with a high degree of effectiveness in executing all phases	• Use appropriate methodology with a considerable degree of effectiveness in executing all phases	• Use appropriate methodology and some phase(s) incomplete	• Use inappropriate methodology and skip some phase(s)	• No methodology is used
Problem Solving Skills	• Have a full picture of the problem and recognize its focus	• Able to understand the problem clearly	• Able to identify a problem and	• Able to identify a problem, but could	• Unable to identify a problem

	Excellent (A)	**Good (B)**	**Satisfactory (C)**	**Marginal Pass (D)**	**Fail (F)**
	• Able to propose candidate solutions and choose the most appropriate one	and recognize its focus • Able to propose a good solution	recognize its focus • Able to propose a satisfactory solution	not understand its focus • Cannot propose a satisfactory solution	
Creativity	• Highly creative • Able to suggest a number of original and appropriate ideas	• Some degree of creativity • Able suggest some original ideas	• A little creativity • Able to suggest some general ideas	• Only borrow or copy others' ideas	• Unable to suggest any idea
Technical Skills	• Can effectively use state-of-the- art technologies to develop the system	• Can effectively use IT technologies to develop the system	• Use IT technologies to develop the system	• Use some less appropriate IT technologies to develop the system	• Cannot use appropriate IT technologies to develop the system
Software Deliverable	• Complete all functional requirements • User interface is very helpful and easy to learn and use • Fully reliable and secure	• Complete most of the functional requirements • User interface is easy to learn and use • Mostly reliable and secure	• Complete adequate functional requirements • User interface is understandable • Minimally reliable and secure	• Complete minimal functional requirements • User interface is difficult to use and learn • Unreliable and unsecure	• Complete only very few or none of the functional requirements • User interface is confusing • No concern of reliability and/or security
Documentation	• Fully document the project • The contents are arranged logically and clearly linked to each other • The writing is free or almost free of grammatical/spelling mistakes • Appropriate references are cited properly to support claims	• Mostly document the project • The contents are arranged logically and are usually clearly linked to each other for most part • There are occasional grammatical/spelling mistakes, but they do not represent a major distraction or obscure meaning • References are cited to support claims, but there	• Adequate document the project • The contents in general are arranged logically. • The writing has many grammatical/spelling mistakes, but they do not distract the readers	• Incomplete documentation • The contents are not logically arranged • The writing has many grammatical/spelling mistakes, and they distract the readers	• No or minimal documentation • The contents are not organized • There are so many grammatical/spelling mistakes that meaning is obscured. • No references are cited to

	Excellent (A)	Good (B)	Satisfactory (C)	Marginal Pass (D)	Fail (F)
		are some minor problems with completeness of format of some citations	• Evidences are cited to support claims, but some of them are unreferenced or inaccurately referenced and there are problems with completeness of format of citations	• Little attempt is made to cite reference	support claims
Oral Presentation / Demonstration	• An accurate and complete explanation of the project is presented / demonstrated • Convey information clearly and inspiring • Maintain eye contact throughout the presentation • Rarely read to notes • Visual aids are logically used to reinforce the spoken message • Demonstrates extensive knowledge of the project by responding to audience questions. • The presentation /demonstration is finished in time. • Produce a high standard poster and auto demo. file	• For the most part, the presentation / demonstration of the project is accurate and complete • Convey information but delivery is a little dry • Maintain eye contact most of the time • Sometimes read to notes • Most of the visual aids used are appropriate and related to the spoken message • Demonstrates good knowledge of the project by responding to audience questions. • The presentation /demonstration is a little bit overrun (within 2 minutes) • Produce a well presented poster and auto demo. file.	• The presentation / demonstration is accurate, but incomplete • Convey information but delivery is dry and uninspiring • Some eye contact, but not maintained • At least 50% of the time read to notes • Visual aids are occasionally used appropriately to support some of the spoken messages • Demonstrates sufficient	• The presentation / demonstration of the project are mostly inaccurate and incomplete • Show little interest in conveying information • Limited attempt to have eye contact • Read to notes most of the presentation • Limited visual aids are used • Demonstrates limited knowledge of the project by responding to audience questions.	• Absent from the presentation / demonstration or no/irrelevant content is presented • No or little visual aids are used • Unable to respond to audience's questions • The presentation /demonstration is too short or too long • Unable to produce a poster and auto demo file. Unable to pro

	Excellent (A)	Good (B)	Satisfactory (C)	Marginal Pass (D)	Fail (F)
			knowledge of the project by responding to audience questions. • The presentation /demonstration is overrun for 2 - 4 minutes • Produce a reasonable poster and auto demo. file.	• The presentation /demonstration is overrun for 4 - 6 minutes • Produce a minimal standard poster and auto demo. file.	
Time Management	• Always finish the task before the deadline and allocate time to complete the task effectively in different phases	• Finish the task before the deadline on most occasions	• Can only finish the task on the very date of the deadline	• Cannot finish the task before deadline on most occasions	• No intention to finish the task before deadline
Professional Attitude	• Always arrive on time for the meeting with supervisor • Always prepared for the meeting	• Occasionally arrive late • Occasional unprepared	• Often arrive late • Often unprepared	• Often arrive late • Rarely prepared	• Often absent from the meeting without prior notice • No preparation for the meeting

Course Content and CILOs Mapping:

Content		CILO No.
I	Project	1-6

References:

- T. Hung, Handbook on Plagiarism, HKBU, 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.
- Literature research appropriate to the topics under study.

Course Content:

Topic

I. Project