Subject Description Form

Subject Code	CSE49404
Subject Title	Design Project
Credit Value	3
Level	4
Pre-requisites	All CSE core subjects at 300-399 or 30000-39999 level
Objectives	To enable the students to develop the first hand practical design experience before graduation.
Intended Learning Outcomes	Upon completion of the subject, students will be able to: a. Utilize the techniques, skills, and modern engineering tools necessary to undertake authentic engineering practice, such as a highway bridge project, within constraints under guidance of industrial and academic supervisors; b. Identify, structure and analyze task-focused and diverse engineering problems arising from the changing constraints that influence civil engineering projects, such as economic, environmental, legislative, social, political, ethical, health and safety, sustainability, and technological considerations; c. Assess and discuss the ethical and social implications of different engineering decisions; d. Communicate logically and lucidly through drawing, calculation, and in writing; e. Present ideas and arguments verbally in formal presentations and informal discussions; f. Negotiate informally with peers, function effectively in multi-disciplinary teams and take responsibility for an agreed area of a shared activity; g. Recognize the need for, and develop an ability to engage in life-long learning.
Subject Synopsis/ Indicative Syllabus	Students will be required to formulate ion of both schematic and detailed design of a large scale civil engineering problem, to appraise various feasible schemes and then carry out detailed design and detailing on key members of the selected scheme. For example, a link is required to connect two places within an area where ground conditions and difficulties of access are apparent. Students may be required to examine the feasibility of various proposed elevated road crossing schemes and carry out a detailed design of the selected bridge structure including the associated earthworks and foundations. Students would also consider the consequence techniques, the scheduling and management of the construction phase of the project, and costs.
Teaching/Learning Methodology	**Time Allocation** The project will last for one term and the number of contact hours is 42. In general, students are expected to spend three hours a week on group discussion and consultations with their supervisors. Project briefing, lectures, and presentations of the projects will also be arranged. The project are divided into four stages (please refer to the Schedule of Programme for details): a) Stage I -Feasibility Study and Scheme Appraisal b) Stage II -Formulation of Plan and Procedures for the Design

c) Stage III -Detailed Design for the Selected Scheme
d) Stage IV -Report Preparation

Group Sizes/Accommodation

Students will work in groups of 6 and each group is provided with various design offices for group discussion and general drawing work.

Supervision

The supervising team for each type of project consists of two academic staff and two visiting lectures. The visiting lecturers, who are experienced practicing engineers, can contribute to formulate projects that are based on real engineering problems and bring in up-to-date practical engineering knowledge.

Assessment Methods in Alignment with Intended Learning Outcomes

Specific assessment methods/tasks	% weighting	Intended subject learning outcomes to be assessed (Please tick as appropriate)						
		a	b	c	d	e	f	g
1. Project Presentation	50	√	√	√	√	√	√	√
2. Project Report	50	√	√	√	√	√		
Total	100 %							

Assessment Methods	Individual Effort for the Project	Group Effort for the Project	Total
Project Presentation: Consultation Meetings Presentation for Scheming	25%	5%	30%
Presentation for Final Design	6%	4%	10%
	6%	4%	10%
Project Report: Report on Scheming	13%	7%	20%
Report on Final Design	20%	10%	30%
Total	70%	30%	100%

Students must pass both the project presentation and project Report, and achieve a passing overall score/ grade to pass the subject.

Student Study Effort Expected

Class contact:	Average Numbers of Hours used per Week
▪ Consultation Meetings	2.65 Hrs.
▪ Project Presentation and Feedback	0.35 Hrs.
Other student study effort:	
▪ Self Study and Project Works	6 Hrs.
Total student study effort	9 Hrs.

Reading List and References

To be provided by the project supervisors.