Subject Description Form

Subject Code	CSE49984
Subject Title	Design Project for Environmental Engineering
Credit Value	4
Level	4
Pre-requisite / Co-requisite/ Exclusion	Pre-requisites: CSE30438 Water Supply and Sewage Engineering Exclusion: CSE40484/CSE49484 Design Project for Environmental Engineers
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 a design of solutions for an environmental engineering problem within constraints under the guidance of industrial and academic supervisors; b. an ability to identify, formulate and solve engineering problems; c. communicate logically and lucidly through drawing, calculation, and in writing; d. present ideas and arguments verbally in formal presentations and informal discussions, and negotiate informally with peers, function effectively in multi- disciplinary teams and take responsibility for an agreed area of a shared activity. e. recognize the need for, and to engage in life-long learning.
Subject Synopsis/ Indicative Syllabus	Students will be required to participate in the formulation of a conceptual solution to an environmental engineering problem, appraisal of the feasible schemes and then carry out the design of the selected scheme. For example, the design of a wastewater treatment plant or sewer system for a new town development.
Teaching/Learning Methodology	**Time Allocation** The project will last for one term and the number of contact hours is 52. In general, students are expected to spend four 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 is 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, Schedule and Procedures for the Design c) Stage III - Design for the Selected Scheme in details d) Stage IV - Report and Drawing Preparation **Group Sizes/Accommodation** Students will be divided into 6 groups, and two class rooms will be arranged for group discussion and general drawing work.

Supervision

The supervising team consists of an academic staff and two visiting lectures. The academic staff and visiting lecturers with practical engineering design experience, 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				
		a	b	c	d	e
1. Project Presentation	50	√	√	√	√	√
2. Project Report	50	√	√	√	√	
Total	100					

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

Explanation of the appropriateness of the assessment methods in assessing the intended learning outcomes:

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

Student Study Effort Required

	Average hours per week
Class contact:	
▪ Consultation/Group Meetings	3.4 Hrs.
▪ Project Presentation and Feedback	0.6 Hrs.
Other student study effort:	
▪ Self Study and Project Works	8 Hrs.
Total student study effort	12 Hrs.

Reading list and references

To be provided by the project supervisor.