Subject Description Form

Subject Code	CSE40484
Subject Title	Design Project for Environmental Engineers
Credit Value	3
Level	4
Pre-requisites / Exclusion	Pre-requisites: All CSE core subjects at 300-399 or 30000-39999 level Exclusion: CSE484
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 e. negotiate informally with peers, function effectively in multi-disciplinary teams and take responsibility for an agreed area of a shared activity.
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 39. 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 an academic staff and a visiting lecture. The visiting lecturer, who is 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 %							

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	25%	5%	30%

	Meetings	6%	4%	10%
	Presentation for Scheming 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	Class contact:	
	▪ Consultation Meetings	2.54 Hrs. / week
	▪ Project Presentation and Feedback	0.46 Hrs. / week
	Other student study effort:	
	▪ Self Study and Project Works	6 Hrs. / week
	Total student study effort	9 Hrs. / week