

SULTAN QABOOS UNIVERSITY
COLLEGE OF ENGINEERING
Department of Civil and Architectural Engineering

CIVL5995/6 PROJECT I& II- Fall 2013/Spring 2014
Handout No. 1: Problem Statement

Project Title: Extension of facilities in SQU (Phase II)

INTRODUCTION

The design project this year is related to a proposed extension of facilities in SQU. The extension includes teaching blocks, students hostel buildings and faculty residence, shops and restaurants, school for staff kids, etc... as outlined on the attached Sketch CED 01 The sketch shows the existing road system permitting ready access to the university from outside in Al-Khodh town direction. All road layouts must now be revised to provide access to/within the academic area and other facilities in the campus, with priority given to public transport serving the academic area. The aspects of Phase II of the proposed development with which you or members of your design team may be involved includes: site investigation, revised road layouts, the design of students hostels, design of water and sewage distribution networks, and storm drainage system. Further details of the requirements in this respect will follow in subsequent handouts.

Formation of Design Groups:

Students registered for this course should split themselves up into teams of about six students. It is advisable that you will be able to decide on the composition of each team yourselves. It is important when forming the teams that each team contains a representative sample of abilities (based on individual cumulative GPAs); it would not be acceptable, for example, for any team to contain more than two of the top six students or more than two of the bottom six students. There will be a Project Leader for each team.

Project Team Leader: Duties and Responsibilities

The members of each team will be responsible for appointing their Project Leader whose duties and responsibilities will include the following:

1. Initiating and coordinating the work of the team during both the initial planning stages and the subsequent design stages.
2. Submitting a Progress Report to the client's representative every FOUR weeks starting the **sixth** week of the Fall semester.
3. Preparation of a report outlining alternative proposals for road access to all facilities in the area, having due regard to the proposed extensions and developments in the area, together with reasoned justifications for the chosen layout.
4. Preparation of a report outlining alternative proposals for water and sewage network systems, having due regard to the proposed extensions and developments in the area, together with reasoned justifications for the chosen layout.

Tasks of the Individual Members of the Design Team

Each member will be assigned a specific part of the project for which he will be responsible. His task will include conceptual design and the preparation of detail design calculations and working drawings for his specific part of the project, with due regard to any interfaces with other parts of the project.

The parts of the project associated with the individual tasks are summarized below; more detailed information relating to the client's requirements for each part will follow in subsequent handouts:

1. Project environmental impact assessment.
2. Traffic study.
3. Proposing and revising road layout for the proposed development area, including the geometric layout and design of the road network and the paved car parking area to be provided within the area.
4. Preliminary design of items Nos. 6 to 9 (below) & initial cost estimates (in Project I).
5. Design of pavement (structural thickness) is also required for the car parking area and the road network indicated in (5) above.
6. Structural design of Students hostels.
7. Design of Water Distribution Network.
8. Design of Sewage Collection System.
9. Design of a storm drainage system.
10. Cost estimate of the project.