CE 108   ENGINEERING IN CONTEXT 1
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Lecturers:	Ms Alison Ahearn (ALA), Ms R Harrison, Ms D Boden, Mrs S Holloway and Others
Module Structure:	experiential project-based learning supported by 36 hours teaching including workshops, lectures and computer laboratory sessions.
Links:	see below

Aims
To provide students with a global view of engineering in its non-technical context and practical generic skills in teamwork, communication and learning.

Course Rationale
The course is designed to make students aware of the breadth of civil engineering (beyond maths and physics) and develop generic skills needed by students in their academic work and as professional engineers. To do this, students design and run a project over two terms, using both secondary and primary research methods, investigating an aspect of a non-technical topic: these can include engineering's politics, economics, health and safety, media, environmental impacts, careers, social science, history, social impact or educational issues.

SYLLABUS
The topics to be covered can be categorised as:
          (a) Concepts and Issues affecting Civil Engineers; and
          (b) Professional Skills.
Concepts and issues
include: What is Civil Engineering? What is the difference between studying civil engineering and practising it? What difference do engineers make to the world? How does the world see engineers? How can we discover new knowledge about engineering? What is involved in running a project? How do we learn from experience? What is academic writing and communication?

Professional and academic skills
include: information literacy– learning skills including reflective learning – written communication including academic writing – oral communication– teamworking and leadership – critical thinking (including independent decision making and prioritisation) - observation and investigation skills (research skills) - time management (project management skills).

Learning Outcomes
There are many potential individual learning outcomes from the course as it is based on experiential learning. Students have a high degree of control over their learning as they are masters of their own project. However, major learning outcomes are such that, at the end of the course, students should be able to:

1. Reflect on their learning from their experience of creating and implementing an engineering research project, including identifying their strengths and weaknesses in areas such as learning skills, written and oral communication, academic writing, teamworking, designing research, critical thinking and interpersonal/management skills.

2. Identify their own strengths and weaknesses in the areas described in 1 above, with a view to planning development of these skills;

3. Develop and implement strategies for accessing information and referencing the information appropriately in academic coursework.

4. State clearly the reasons why plagiarism is unacceptable and identify how to avoid it.

5. Discuss a variety of non-technical aspects of engineering

6. Further their peers' understanding of a specific aspect of engineering.

Assessment
Students are assessed on their report in which they write up their original investigative project. Half of the marks are awarded for the student's individual chapter, the other half is a team mark based on the overall team report. Students also submit learning summaries (personal, micro team and macro team learning summaries) and a self-critique of their oral presentations to peers. The learning summaries and self-critiques are not awarded separate marks but may positively influence the mark for the major report, as students can explain their insights gained from even a weak major report. The learning summaries and self-critiques are not used to lower a major report mark.

In addition, students are required to do the online assessment on information literacy, to provide themselves with feedback on their information literacy knowledge and skills. The online assessment may be used to positively influence a mark for a weak major report, but a student's information literacy skills are mainly assessed via the literature survey and referencing evident in the major report.

Assessment for the Risk Assessment module
In addition to the marks awarded for Engineering in Context 1, students are able to earn 8 marks by attending every session of the **Risk Assessment course**. The marks are added to the Context 1 mark (in effect creating an uplift on the Context 1 marks).

Links to other modules
It should be noted that skills are assessed through the evidence provided by the project report: for instance, students who fail to reference their sources of information in their project report are limited to a C grade maximum. The teamworking skills are further tested in the activities undertaken in Creative Design 1 and the Surveying field course, promoted through liaison between the subject coordinators. The course lays a foundation for Engineering in Context II (which adds technical context to the non-technical concepts learned). The teamskills in leadership, timeplanning, organisation and management are tested in the 3rd Year Group Design Project and Constructionarium. Individual project management skills are tested in the Final Year Project undertaken by all 4th year students.