

CE 101 Engineering Knowledge

Co-ordinator: Ms A.L. Ahearn (Room 321), a.hearn@imperial.ac.uk

Lecturers:	Ms Ahearn (Induction course); Dr McIntyre (Dept Careers Adviser) and Ms McEwen (Careers Service); Dr Wing (Industrial Liaison Tutor/Computing Officer); Dr Tsang (ICE Liaison Officer), Dr Onof (Year Abroad Scheme/Maths test), Professor Wise and Mr McCann (Creative Design buddy scheme event); Prof Cash (Maths test)
Structure:	Various timetabled events throughout the year which support students' learning skills or develop students' understanding of the engineering profession.
Links:	All the sessions serve to prepare students to undertake university studies in civil and environmental engineering.

Aims

The Engineering Knowledge Course is intended to allow students to adjust from their previous educational experiences so that they are in a position to develop themselves as learners, student engineers and tackle their first year subjects with meaning.

SYLLABUS

When studying engineering, you "engineer" knowledge about engineering, about how to learn engineering and about how to be an engineer. This module aims to support you as you take responsibility for your own learning about engineering. Various members of staff run one-off events which are timetabled. The events include:

Induction activities: in week 1, students are given a chance to meet and work with each other without worrying about working for marks. Teamwork and problem solving are emphasised. A preliminary maths test is held to diagnose student needs for maths tuition. Introduction sessions are provided on the Year Abroad Scheme and the professional institutions.

Buddy scheme: created through liaison between staff and students representatives, the new-look buddy scheme lets second year students pass on their skills and tips to first year students. (This is run in conjunction with student representatives and City and Guilds).

Learning to Learn: Class time is given to examination of the College's learning guide for students: this is followed up in CE108 Context 1 and in the use of progress files.

Careers workshop: helps students sort out their ideas about vacation employment, an activity that can make a huge difference to student performance and learning.

Library resources: Civil Engineering library talk and digital resources tutorial: students are shown where/how to access information, from books and the web, plus the essential skills of referencing information sources and avoiding plagiarism.

Computing accounts and email: students are allocated their accounts and told "the rules" for keeping their computing privileges.

Site visits: We will strive to arrange visits to a real construction site (but this is subject to weather, safety, building schedules and co-operation from contractors).

Personal Development Planning (PDP): students are introduced to PDP and the College's website "IC Employability" where students can obtain templates for creating their own PDP file.

Assessments: Only the site visits will be assessed (their marks will attach to CE108 Engineering in Context 1). The course is supportive of student learning but is not examinable. It is intended that students should take responsibility for their own learning and reflect on how they could or should change their approach to their studies in light of the things they hear/see/do on the Engineering Knowledge course.

Learning Outcomes

The most valuable benefits from the module will be:

- Clarifying administrative detail (e.g. timetables, computer accounts)
- Meeting experienced students and working with them (Creative Design buddy workshop)
- Discovering what the staff mean when they expect "teamwork"
- Experiencing a range of activities that build your understanding of 'what engineering is' and 'how to gain knowledge about engineering'.

At the end of various events in the module, students should be able to:

- (a) Make use of the Learning to Learn booklet and outline a strategy for university level learning;
- (b) Identify the peer support systems available to students;
- (c) Identify suitable people to ask for help on administrative, academic, pastoral, careers and computing concerns;
- (d) Make initial decisions concerning learning strategies, careers strategies, personal development planning and extracurricular activities;
- (e) Describe the function of the ICE, CivSoc and other relevant professional institutions in the life of an engineering student;
- (f) Recognise the differences and common ground between academic engineering science, design consultancy and the work of engineering contractors.

