

Module Specification

Module Summary Information

1	Module Title	Engineering Practice
2	Module Credits	20
3	Module Level	4
4	Module Code	ENG4093

5	Module Overview
<p>The module aims to provide the practical and professional skills to enable you to progress to the next module in the practical theme, Practical Skills II, and then on to the second year of an engineering degree. As the theoretical aspects of physical science and maths are delivered in other themes of the first year, the Practical Skills modules concentrate on the practical aspects.</p> <p>The subject material will be delivered in three coherent streams one of which contains predominantly mechanical and electrical laboratory exercises, a second PC-based stream will include use of software to support project planning, communication and analysis and the third, a project space where you have the opportunity to integrate learning from across all elements of the semester.</p> <p>You will develop practical professional engineering skills including skills required for conceiving, designing, implementing and operating engineering solutions.</p> <p>It is anticipated that the module will be delivered as three 3 hour sessions, and will include a very small group tutorial session where you will meet with your tutors in groups of 5 – 10 students.</p> <p>This module will interact with modules in the other two themes in the first year in that it will rely on knowledge of mathematical techniques, and the theoretical underpinning of the engineering principles, design and professional skills theme.</p>	

6	Indicative Content
<p>Professional Skills Health and Safety, Introduction to engineering project (CDIO), Introduction to graphical representation techniques, Project planning, research tools, writing of technical reports and referencing, Presentation skills and preparation, Mathematical modelling tools, CV's and applying for a summer job / internship.</p> <p>Mechanical and electronic labs Young's modulus by bending, Vibration of beams , Strain gauge application , Heat exchanger , Temperature measurement , Tensile testing , Ohms law , Network analysis, RLC circuits , Passive filters, Combination logic circuits</p>	

7	Module Learning Outcomes	
	On successful completion of the module, students will be able to:	
	1	Plan and complete a range of practical labs and activities. Analyse and record data in an appropriate manner.
	2	Develop an understanding of the basic CDIO process.
	3	Work collaboratively in teams with individual accountability to successfully complete projects.

8	Module Assessment		
Learning Outcome			
	Coursework	Exam	In-Person
1-3	40%		60%

9	Breakdown Learning and Teaching Activities	
Learning Activities	Hours	
Scheduled Learning (SL) includes lectures, practical classes and workshops, peer group learning, Graduate+, as specified in timetable	120	
Directed Learning (DL) includes placements, work-based learning, external visits, on-line activity, Graduate+, peer learning, as directed on VLE	0	
Private Study (PS) includes preparation for exams	80	
Total Study Hours:	200	