

Module Specification

Module Summary Information

1	Module Title	Design and Manufacture
2	Module Credits	20
3	Module Level	5
4	Module Code	ENG5101

5	Module Overview
<p>This module develops your research skills, idea generation techniques, and ability to create CAD models and manufactured components.</p> <p>You will also gain the ability to communicate design ideas and practical details, to evaluate and apply both tangible and subjective feedback, and to conceive, design, implement and operate practical solutions to design opportunities.</p>	

6	Indicative Content
<p>Manufacture Health and Safety, CNC Machining, Inspection, Limits, fits and tolerances, CAM systems application.</p> <p>CAD CAD drawings and standards, Component modelling, Assembly modelling.</p>	

7	Module Learning Outcomes
On successful completion of the module, students will be able to:	
1	Apply CAD to the modelling of production-capable parts and the creation of assembly drawings.
2	Evaluate the opportunities and limitations of CAD in the development of new products.
3	Employ CAM simulations and machine tool programmes to create components that form part of a fully justified design solution.
4	Appraise quality issues, tolerances and manufacturing processes through the creation of a CAD-based engineering assembly.

8 Module Assessment			
Learning Outcome			
	Coursework	Exam	In-Person
1-4	70%		30%

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	72
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	128
Total Study Hours:	200