

Liverpool John Moores University

Title: COMPUTER AIDED PRODUCT DESIGN
Status: Definitive
Code: **6068ENG** (106354)
Version Start Date: 01-08-2016

Owning School/Faculty: Maritime and Mechanical Engineering
Teaching School/Faculty: Maritime and Mechanical Engineering

Team	Leader
Andy Pettit	Y

Academic Level: FHEQ6 **Credit Value:** 12 **Total Delivered Hours:** 30
Total Learning Hours: 120 **Private Study:** 90

Delivery Options

Course typically offered: Summer

Component	Contact Hours
Lecture	10
Practical	10
Tutorial	10

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Portfolio	Port		20	
Portfolio	Port		20	
Portfolio	Port		60	

Aims

To provide an introduction to engineering design through an open-ended design project and to develop competence in the application of CAD systems.

Learning Outcomes

After completing the module the student should be able to:

- 1 Develop a product design specification to meet customer requirements
- 2 Select materials and components with an awareness of supply and cost implications.
- 3 Carry out detail design to comply with current standards and codes of practice
- 4 Present designs using a combination of oral and audiovisual techniques
- 5 Specify a chosen design using CAD solid modelling to produce, layout, assembly and detail drawings

Learning Outcomes of Assessments

The assessment item list is assessed via the learning outcomes listed:

Spec and conceptual ideas	1			
Presentation	4			
Final report	2	3	5	

Outline Syllabus

Design methodology.

Product design in relation to materials and processes.

Use of machine elements in design.

Application of solid modelling to component and assembly design.

Design for manufacture.

Learning Activities

A series of lectures, tutorials, case studies and computer-based laboratory work. The students will also work in small teams to produce a design solution

Notes

This module develops engineering design skills.