

Liverpool John Moores University

Title: Modelling Workshop I
Status: Definitive
Code: **4006PDE** (120081)
Version Start Date: 01-08-2016

Owning School/Faculty: Electronics and Electrical Engineering
Teaching School/Faculty: Electronics and Electrical Engineering

Team	Leader
Jamie Finlay	Y

Academic Level: FHEQ4 **Credit Value:** 10 **Total Delivered Hours:** 72
Total Learning Hours: 100 **Private Study:** 28

Delivery Options

Course typically offered: Standard Year Long

Component	Contact Hours
Practical	24
Workshop	48

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Portfolio	WS port	Workshop Portfolio	50	
Portfolio	Models	Models	50	

Aims

Introduce design modelling and provide the practical skills necessary to produce physical 3D models.

Learning Outcomes

After completing the module the student should be able to:

- 1 Safely carry out a range of basic workshop procedures using standard processes.
- 2 Use basic measuring, cutting, joining and finishing techniques to develop 3D models using a range of materials and techniques
- 3 Identify the most appropriate modelling materials and techniques to model a given design

Learning Outcomes of Assessments

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

Workshop portfolio	1	
Models	2	3

Outline Syllabus

Module introduction

Module guide; aims; learning outcomes; assessment and marking schemes. Outline syllabus; module timetable and student feedback.

General content:

This module introduces the student to the skills needed for model making. It offers instruction and technical support to produce models in different materials using computer aided modelling techniques. It also enables the practice of accurate measuring and transferring of measurements between different scales. This exploration of a product through 3D physical modelling also introduces the students to good workshop practice. The module will be taught through practical workshops in the studio and be supported by lectures and seminars. Topics covered include:

Health and safety:

General workshop practice. Health and safety at work act; risk assessment; COSHH.

Basic engineering workshop procedures and processes:

Reading engineering drawings. Practical workshop skills. Tolerances & fits. Measurement and inspection.

Modern modelling techniques:

CNC routing; rapid prototyping.

Learning Activities

This is a studio based, practical module where students are taught the basic modelling skills required for their programme of study.

Notes

This module is delivered using a variety methods including lectures, seminars, tutorials and practical sessions. The module will be delivered from a engineering and product design perspective.