

Model Making and Engineering Practice

Module Information

2022.01, Approved

Summary Information

Module Code	4166PDE
Formal Module Title	Model Making and Engineering Practice
Owning School	Engineering
Career	Undergraduate
Credits	20
Academic level	FHEQ Level 4
Grading Schema	40

Teaching Responsibility

LJMU Schools involved in Delivery
Engineering

Learning Methods

Learning Method Type	Hours
Lecture	11
Practical	33
Workshop	36

Module Offering(s)

Display Name	Location	Start Month	Duration Number Duration Unit
JAN-CTY	CTY	January	12 Weeks

Aims and Outcomes

Aims	Introduce design modelling and provide the practical skills necessary to produce physical 3D models.
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After completing the module the student should be able to:

Learning Outcomes

Code	Number	Description
MLO1	1	Create a model by hand using basic materials to a quality finish.
MLO2	2	Demonstrate proficiency in use of basic machine tools to produce a model.
MLO3	3	Recognise industry standard safe codes of practice

Module Content

Outline Syllabus	This module introduces the student to the skills needed for model making. It offers instruction and technical support to produce models in different materials. 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. On completion of the module, the students will be able to:- Understand manual methods of model making using different materials (e.g. wood, clay and polymers)- Identify material properties and select the appropriate modelling method- Recognise how form and texture influences a model's design approach- Use rapid prototyping and machine technologies in the creation of prototype models- Apply basic human factor / ergonomics knowledge to a prototype model-making processHealth 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.
Module Overview	This module will introduce you to design modelling and provide the practical skills necessary to produce physical 3D models.
Additional Information	This module is delivered using a variety methods including lectures and practical sessions. The module will be delivered from a engineering and product design perspective.

Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Module Learning Outcome Mapping
Essay	A portfolio of models	100	0	MLO1, MLO2, MLO3

Module Contacts

Module Leader

Contact Name	Applies to all offerings	Offerings
Adam Papworth	Yes	N/A

Partner Module Team

Contact Name	Applies to all offerings	Offerings
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