

Liverpool John Moores University

Title: Design Principles
Status: Definitive
Code: **4173CSD** (125580)
Version Start Date: 01-08-2021

Owning School/Faculty: Engineering
Teaching School/Faculty: Engineering

Team	Leader
Adam Papworth	Y

Academic Level: FHEQ4
Credit Value: 20
Total Delivered Hours: 55
Total Learning Hours: 200
Private Study: 145

Delivery Options

Course typically offered: Semester 1

Component	Contact Hours
Lecture	11
Practical	33
Workshop	11

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Future Focus e-learning task	Self Aware	Self Awareness Statement	10	
Report	NPD Report	NPD Report	30	
Artefacts	Models	Concept Product Models	60	

Aims

This module aims to equip students with tools to enable the successful completion of a concept model using fundamental design theories and practices. The module will help identify and reflect upon personal achievements and develop teamwork. The creative and imaginative approaches to problem solving will be distilled through a

concept model and 3D design techniques.

Learning Outcomes

After completing the module the student should be able to:

- 1 Identify and reflect upon the following aspects of personal development: strengths and weaknesses, motivations and values, ability to work with others.
- 2 Apply creative and imaginative approaches in problem solving and the development of designs.
- 3 Create a concept model through iterative development of aesthetic forms using hand modelling techniques

Learning Outcomes of Assessments

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

Self Awareness	1	
NPD Report	1	2
Concept Product Models	3	

Outline Syllabus

The module focuses on creation and ideation skills and techniques.

- *Study of aesthetics*
- *Introduction to 3D design (e.g. the disciplines of architecture, landscape architecture, industrial design & spatial design)*
- *The basic elements of design (visually and conceptually)*
- *2D and 3D modelling exercises using various materials & tools.*
- *Discovery through experimentation*
- *Developing aesthetic judgment*
- *Critical self-evaluation*

The New Product Design process starts with an initial idea or inspiration, which will be sourced from the discovery phase in which user needs are identified. Activities will include:

- *Market research*
- *User research*
- *Managing information*
- *Design research groups*

As part of the LJMU CareerSmart programme, students will explore their development as a designer; reflect on where you have come from, how you will develop while at LJMU and where you ultimately see yourself positioned in your profession in the future.

Learning Activities

This module will be delivered through an integrated series of lectures, workshop sessions and guided design activities. The learning activities are to be student focused and develop the students' design knowledge through experiential learning.

Notes

This module is delivered using a variety methods including lectures and hands-on workshop sessions.