Liverpool John Moores University

Title:	PRODUCT DESIGN
Status:	Definitive
Code:	**6000TECH** (105312)
Version Start Date:	01-08-2016
Owning School/Faculty:	Electronics and Electrical Engineering
Teaching School/Faculty:	Electronics and Electrical Engineering

Team	Leader
Adam Papworth	Y

Academic Level:	FHEQ6	**Credit Value:**	24	**Total Delivered Hours:**	112
Total Learning Hours:	240	**Private Study:**	128		

Delivery Options
Course typically offered: Standard Year Long

Component	Contact Hours
Lecture	24
Practical	88

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Essay	AS1	Group Reverse Engineering Project	40	
Essay	AS2	Group Leading Design Project	60	

Aims

This module covers the latest product design issues and methods that are driving social and economic change.

Learning Outcomes

After completing the module the student should be able to:

1	Design a product that balances both its aesthetic and ergonomic form with its functionality to produce a desirable product.
2	Design a product that is sensitive to modern social and economic issues.

Learning Outcomes of Assessments

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

CW	1	2
CW	1	2

Outline Syllabus

General:
Types of design; reverse engineering and re-design; the design process; design research / needs recognition; design management; problem definition stage; problem statement; design brief; design specifications / BS7373; ideation loop; design scheme selection; embodiment design; product configuration and architecture; make / buy decisions; material selection; design for manufacture / assembly; design for plastic injection moulding, casting, machining and fabrication.

Design Ethics:
Principles of good design; user centred design; inclusive design; design for security; sustainable design.

Form Design:
Human factors / ergonomics; aesthetics; branding and styling; customerisation; emotional / experience design.

Learning Activities

This module will be taught with a series of lectures and practical design sessions. Case studies of modern examples of good design will be used to inspire the students. This will culminate in a structured design week, in both semesters, where students will focus on the development of their design project.

Notes

This module allows students to explore and investigate some of the most important and relevant aspects of product design. It also allows the students some freedom to choose an area of design that is of particular interest to the group invovled. This will

culminate in a structured design week, in both semesters, where students will focus on the development of their design project.