

Liverpool John Moores University

Title: Design Management
Status: Definitive
Code: **6002PDE** (120089)
Version Start Date: 01-08-2018

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

Team	Leader
Rob Darlington	Y
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Academic Level: FHEQ6 **Credit Value:** 20 **Total Delivered Hours:** 72
Total Learning Hours: 200 **Private Study:** 128

Delivery Options

Course typically offered: Standard Year Long

Component	Contact Hours
Lecture	48
Tutorial	24

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Practice	Prac	Design management theory presentation	30	
Report	Rpt	Design project management report	70	

Aims

Provide an overview of design in business, as well as the principles of design, management and innovation.

Learning Outcomes

After completing the module the student should be able to:

- 1 Demonstrate understanding of design management theory.
- 2 Recognise and follow design and development processes to realise effective design solutions.
- 3 Apply design management principles and effectively manage a design project.
- 4 Negotiate and plan design projects.

Learning Outcomes of Assessments

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

Des man theory presentation	1	2
Des project management report	3	4

Outline Syllabus

Module introduction

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

Provide an overview of design in business, as well as the principles of design, management and innovation.

Strategic innovation and the design/business interface.

Design in business. Design management theory at an operational, functional and strategic level. Ideation and market research. Competitive positioning, business context, new paradigms of innovation, open innovation, management of innovation.

The Design process and configuration control

Design data flows; mapping design processes, communication theory in design.

BS7000 design management standard.

Controlling and documenting the design process. Design feasibility studies. Design criteria checklist prioritisation matrices. Design planning and planning approvals. Design verification. Design reviews. Engineering records.

Design quality and risk management

The quality of design. The concept of value and the voice of the customer (VOC).

Concurrent engineering and quality functional deployment. Value

Analysis/Engineering. (VA/VE). Technical risk management. Failure Modes and Effects Analysis (FMECA). Works query notes, design modifications / amendments and production permits.

Project management

Project breakdown structure (PBS); work breakdown structure (WBS); scheduling techniques (relationship between schedules WBS and PBS); project integration management; Gantt charts; milestones; deliverables; critical path analysis and resource smoothing; execution strategy.

Learning Activities

This module will be delivered through an integrated series of lectures, tutorials, practical sessions, guided design activities and case studies. 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, seminars, tutorials and practical sessions. The module will be delivered from a engineering and product design perspective.