

## Liverpool John Moores University

Title: Design & Project  
Status: Definitive  
Code: **4503NCCG** (129397)  
Version Start Date: 01-08-2021

Owning School/Faculty: Engineering  
Teaching School/Faculty: Nelson Campus

Team	Leader
Christian Matthews	Y

**Academic Level:** FHEQ4  
**Credit Value:** 20  
**Total Delivered Hours:** 49  
**Total Learning Hours:** 200  
**Private Study:** 151

### Delivery Options

Course typically offered: S1, S2, Sum, NS2 (S2 for Jan)

Component	Contact Hours
Lecture	24
Tutorial	25

**Grading Basis:** 40 %

### Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Report	Proj Rep	Project Report	60	
Presentation	Pres	Presentation (20 Minutes + Q&A)	40	

### Aims

*The aims of this module are twofold:  
To introduce students to the methodical steps that engineers use in creating functional products and processes; from a design brief to the work, and the stages involved in identifying and justifying a solution to a given engineering need. On successful completion of this module students will be able to prepare an engineering design specification that satisfies stakeholders' requirements, implement best*

*practice when analysing and evaluating possible design solutions, prepare a written technical design report, and present their finalised design to a customer or audience. To enable students to conceive, plan, develop and execute a successful engineering project, and produce and present a project report outlining and reflecting on the outcomes of each of the project processes and stages.*

## **Learning Outcomes**

After completing the module the student should be able to:

- 1 Create a plan for a design solution and implementation project to meet a realistic stakeholder brief
- 2 Formulate possible technical solutions to address design specification.
- 3 Conduct project activities to generate outcomes which provide a solution to the identified brief
- 4 Produce a report covering the selected design solution, and the progress and outcomes of the project
- 5 Present an evaluation of your design and project outcomes to a technical audience

## **Learning Outcomes of Assessments**

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

Project Report	1	2	3	4
Presentation	5			

## **Outline Syllabus**

*Analysis of engineering problems  
Customer and stakeholder requirements and expectations  
Development of design specification  
Design processes  
Development and assessment of potential solutions  
Project execution, tracking and monitoring  
Success criteria and evaluation  
Ethical considerations in Engineering projects  
Presentation to different audiences*

## **Learning Activities**

### Lectures

The theoretical underpinning of this module is taught formally by means of interactive lectures to small groups of up to 20 students

### Group Tutorials

The bulk of the module will be made up of group tutorial support and supervision by staff of students' evolving project work.

### Independent Study

Students are expected to undertake personal reading and research into topic areas that have been stimulated from the lectures and seminars. This reading will enhance their academic work and enable valid contribution to lectures and seminars.

### VLE support

This will provide links to academic web-sites and on-line journals, facilitate group discussion outside of the classroom, access to outline lecture notes, and provide students with assessment details.

### Notes

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