

Liverpool John Moores University

Title: Group Design Project
Status: Definitive
Code: **7000FETGDP** (128081)
Version Start Date: 01-08-2021

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

Team	Leader
Muhammad Ateeq	Y

Academic Level: FHEQ7 **Credit Value:** 60 **Total Delivered Hours:** 33
Total Learning Hours: 600 **Private Study:** 567

Delivery Options

Course typically offered: Semester 1

Component	Contact Hours
Seminar	22
Tutorial	11

Grading Basis: 50 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Report	Task 1	Initial Design Specification (1,500 words)	10	
Report	Task 2	Month 1 Progress Report (2,500 words)	20	
Report	Task 3	Design Completion & Delivery Report (15,000 words)	50	
Presentation	Task 4	Business Case Pitch (20 minute presentation)	20	

Aims

The Group Design Project aims to apply engineering, technology and scientific knowledge to a real-world design problem.

Learning Outcomes

After completing the module the student should be able to:

- 1 Critically analyse customer requirements and apply scientific principles and methodology to develop product specifications
- 2 Plan and manage design work and processes within a team and apply relevant project management techniques to ensure that design solutions are derived on time to meet customer need.
- 3 Apply advanced problem-solving skills, engineering knowledge and understanding to develop rigorous and creative solutions and to analyse and evaluate them in terms of functionality, sustainability, environmental, economic and social impact.
- 4 Work flexibly and effectively within a group and be able to adapt to changing requirements.
- 5 Demonstrate effective written and oral communication skills and an ability to confidently present work to a variety of audiences.

Learning Outcomes of Assessments

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

Initial Design Specification	1	4		
Month 1 Progress Report	2	4		
Completion & Delivery Report	2	3	4	5
Business Case Pitch	4	5		

Outline Syllabus

Detailed ideas will be explored and developed through design, experimentation, computer modelling and/or manufacture. The Group Design Project will encompass the wider aspects of social, economic, political, legislative, environmental, cultural, ethical and sustainability issues required in the modern environment.

Students will work in groups and will meet regularly with an academic supervisor and any internal or external stakeholders. Groups will develop an effective team-working ethic and project management skills. They will present their work through regular meetings with their supervisor and prepare and submit progress reports and oral presentations.

Establishment of an effective team, managed through regular consultation with an academic supervisor.

Establishing project requirements in conjunction with an external or internal client. Project planning and control to ensure an efficient, timely and effective outcome which meets client expectations.

Design, delivery and execution of a technical design project, according to a managed plan.

Presentation of design solutions in a concise and professional way to an audience including the client, peers and academic staff.

Learning Activities

This module will be student centred and led, but will be supported by regular advice and tutorial activities with an academic supervisor.

Notes

The project provides the opportunity to conduct a major learning activity on a relevant engineering, technology or science-based topic. The project requires the group to demonstrate a good team-working ethic, excellence in project management, engineering and technology application and critical evaluation and presentational skills within a team working environment.

Assignment 1 and Assignment 2 will be tutor assessed. Individual contributions will be identified within the body of each of those reports.

Assignment 4 will be tutor assessed, with each group member responsible for demonstrating their contribution.

Assignment 3 will be tutor and peer assessed. Individual members will be responsible for an equitable contribution to the final report. Peer assessment will be graded based upon pre-published criteria submitted as an addendum to the approval documents. (Acknowledgements Cornell University).