

Liverpool John Moores University

Title: Engineering Application B
Status: Definitive
Code: **5505MTC** (125785)
Version Start Date: 01-08-2019

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

Team	Leader
Russell English	Y

Academic Level: FHEQ5 **Credit Value:** 20 **Total Delivered Hours:** 22
Total Learning Hours: 200 **Private Study:** 178

Delivery Options

Course typically offered: Non Standard Year Long

Component	Contact Hours
Online	6
Tutorial	16

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Report	AS1	Professional Development Work Based Learning Case study	50	
Portfolio	AS2	Project Management Work Based Learning Case study	50	

Aims

To enable students to undertake an investigation into their companies environmental policies and procedures and to develop their skills in project management and team work using work based projects.

Learning Outcomes

After completing the module the student should be able to:

- 1 Critically evaluate the effectiveness of an organisations policies and procedures for environmentally friendly and sustainable manufacture, their compliance with environmental legislation and how the policies and procedures could be enhanced.
- 2 Apply the principles of project management to execute a group project.
- 3 Critically evaluate the effectiveness of a team in executing a group project and recommend how the performance could have been improved
- 4 Describe the role of a professional engineer in meeting professional standards and their obligations to society and to protect the environment.

Learning Outcomes of Assessments

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

Professional Development WBL	1	4
Project Management WBL	3	2

Outline Syllabus

WBL Professional Development

Determine how an organisation and a professional engineer meets their corporate and social responsibilities, delivers economic, social and environmental benefits to its stakeholders and how an organisations procedures and practices could be enhanced.

WBL Project Management

Use of project management knowledge and skills developed from the module 'Business and Project Management' in a group project to develop the skills required to be an effective member of a team. The project group will be given a project that will be a feasibility study (eg reducing plastic packaging in the food industry, how to address a particular skills shortage in a manufacturing sector) and each group member must submit a portfolio on the outcome of the project and its execution.

Learning Activities

The professional development study will be delivered through work based learning in the form of a case study based in the students place of work. In the 'project management' group project, the students will be required to organise the execution of their project through communications from the individual places of work and by organising group meetings at campus based study days. Teams will be formed with three to four members, with the members of each team employed in different companies or in different work place locations. Case study and project work will be supported by tutorials to provide guidance to ensure that each student is able to meet the learning outcomes of the module. Individual portfolios will enable each student to demonstrate their achievement of learning outcomes. The portfolio will include a report written by the student and designed to be read by a companies

executive on the outcome of the project or study with recommendations.

Notes

The module is designed to help develop the student as a professional engineer and to meet the requirements for an Incorporated Engineer specified in UKSPEC and the Apprenticeship Standard for Product Design and Development.

The module is delivered over the summer and semester 1 as a non-standard year long module. The professional development activity should take place over summer, whereas the group 'project management' activity should be undertaken in semester 1 (following the 'Business and Project Management' module completion).