

## Liverpool John Moores University

Title: PROFESSIONAL ENGINEERING  
Status: Definitive  
Code: **5502NCCG** (129435)  
Version Start Date: 01-08-2021

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

Team	Leader
Christian Matthews	Y

**Academic Level:** FHEQ5      **Credit Value:** 20      **Total Delivered Hours:** 60  
**Total Learning Hours:** 200      **Private Study:** 140

### Delivery Options

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

Component	Contact Hours
Lecture	60

**Grading Basis:** 40 %

### Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Report	Assignment	Group Assignment	60	
Presentation	Pres.	Individual Presentation (15 mins +Q&A)	40	

### Aims

*The aim of this module is to provide students with the professional standards for engineers and to guide them on how to develop the range of employability skills needed by professional engineers. Among the topics included in this module are: engineering strategy and services delivery planning, the role of sustainability, engineering management tools, managing people and becoming a professional engineer. On successful completion of this module students will be able to construct a coherent engineering services delivery plan to meet the requirements of a sector-*

*specific organisation or business. They will display personal commitment to professional standards and obligations to society, the engineering profession and the environment.*

## **Learning Outcomes**

After completing the module the student should be able to:

- 1 Evaluate the risk evaluation theories and practices associated with the management of projects for the production of current and developing technology.
- 2 Produce an engineering services delivery plan that meets the requirements of a sector-specific organisation.
- 3 Develop effective leadership, individual and group communication skills.
- 4 Develop personal commitment to professional standards and obligations to society, the engineering profession and the environment.

## **Learning Outcomes of Assessments**

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

Group Assignment	1	2	3
Individual Presentation	4		

## **Outline Syllabus**

*Strategic planning and deployment, engineering strategy and services delivery planning, the role of sustainability and supply chain management, new product development strategies, legal obligations and corporate responsibility.*

*Engineering relationships: the relationship between engineering and financial management, marketing, purchasing, quality assurance and public relations.*

*Engineering management tools: problem analysis and decision-making, risk management, change management, performance management, product and process improvement, project management and earned value analysis.*

*Managing people: effective leadership styles, techniques to effectively manage teams, communication and listening skills, negotiating skills, human error evaluation, coaching and mentoring.*

*Becoming a professional engineer: engineering social responsibility, importance of being active and up to date with the engineering profession, new developments and discoveries, methods of Continuing Professional Development (CPD)*

## **Learning Activities**

### **Lectures**

These will not normally be traditional didactic lectures in which the student plays little active part, but will be delivered in small groups of up to 20 students in which their interaction with their tutor is a key ingredient of their learning experience.

Students will receive approximately 30 hours of taught material, supported by in-

class exercises and discussions designed to help student assimilate learning and to provide early informal feedback on their progress.

#### 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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