

Liverpool John Moores University

Title: Services Engineering Professional Project
Status: Definitive
Code: **6129BEUG** (119664)
Version Start Date: 01-08-2019

Owning School/Faculty: Built Environment
Teaching School/Faculty: Built Environment

Team	Leader
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Academic Level: FHEQ6 **Credit Value:** 24 **Total Delivered Hours:** 48
Total Learning Hours: 240 **Private Study:** 192

Delivery Options

Course typically offered: Standard Year Long

Component	Contact Hours
Lecture	12
Tutorial	12
Workshop	24

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Report	AS1	This report, completed in teams, enables the developmental stages of the project from appraisal through to concept design to be assessed.	30	
Artefacts	AS2	This work, completed individually, enables the detailed development of allocated aspects of the project to be assessed.	30	
Presentation	AS3	The presentation, undertaken individually, allows	10	

Category	Short Description	Description	Weighting (%)	Exam Duration
		communication skills to be assessed, and requires students to critically evaluate their own design solution against alternatives.		
Portfolio	AS4	This work, completed in teams, is the documentation of the strategies and procedures by which the project was managed and an analysis of the resultant professional development.	30	

Aims

To enable the student to work both collaboratively and individually on realistic projects that facilitate the development and integration of a range technical and professional skills in the context of building services engineering.

Learning Outcomes

After completing the module the student should be able to:

- 1 Work as part of a team to critically evaluate the requirements, risks, and implications of a clients brief for a building services engineering project.
- 2 Work as part of a team to produce, and critically evaluate, conceptual designs for building services engineering solutions to a client's brief, taking into account the key risks including sustainability, Health and Safety and economics.
- 3 Apply building services engineering technology and management procedures to progress conceptual designs into detailed solutions to a client's brief, taking into account all applicable details e.g. calculations, drawings, sustainability, Health and Safety, costing, contractual and programming issues.
- 4 Critically evaluate their own and alternative designs, and demonstrate presentation skills.
- 5 Produce documentation to demonstrate how the project was organised and managed professionally and effectively within the team.
- 6 Critically evaluate the skills and competences demonstrated in the completion of the project against the relevant competence criteria of appropriate professional institutions.

Learning Outcomes of Assessments

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

Team project	1	2
Individual project	3	
Individual presentation	4	
Management portfolio	5	6

Outline Syllabus

The philosophy of engineering design and the wider issues relating to the economic, financial, political, social and environmental aspects of design.

Interpreting and assimilating the project brief, client familiarisation, scope and requirements of the project, identification of legislative, health & safety and other constraints.

Development and review of designs through to concept stage.

Use of software as analytical, design and management tools. Selection and development of detailed solutions to set tasks, review, critical analysis and presentation of design solutions.

Techniques for project management, planning, time management, work allocation, progress review, standards and quality control, record keeping and documentation.

Personal professional development review. Development Planning.

Learning Activities

Lectures, tutorials, seminars, and design studio sessions during which students will work in teams which will act as a firm of consulting engineers and will be given a design brief by a member of staff, who will act as client.

Notes

This module brings together the students' learning throughout their study and further develops the project work undertaken at levels 4 and 5. The module requires the students to demonstrate professional standards both in the production of solutions to building services engineering projects and in the management of the process by which the solutions are developed in a team situation. Additionally, students will reflect on their professional development against the competence standards published by appropriate professional institutions.