

Module Information

2022.01, Approved

Summary Information

Module Code	7204BEUG
Formal Module Title	Building Engineering Research and Design Project
Owning School	Civil Engineering and Built Environment
Career	Undergraduate
Credits	60
Academic level	FHEQ Level 7
Grading Schema	50

Teaching Responsibility

LJMU Schools involved in Delivery
Civil Engineering and Built Environment

Learning Methods

Learning Method Type	Hours
Lecture	6
Tutorial	20
Workshop	65

Module Offering(s)

Display Name	Location	Start Month	Duration Number Duration Unit
JAN-CTY	CTY	January	12 Weeks

Aims and Outcomes

Aims	To develop the student's research and conceptual design skills and use these, together with other professional skills expected of a consulting engineer in the solution of an engineering problem presented by a client.
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After completing the module the student should be able to:

Learning Outcomes

Code	Number	Description
MLO1	1	Interpret and assimilate a client's brief and complete a needs analysis to evaluate the scope, requirements, risks, and implications for a building services or architectural engineering project.
MLO2	2	Apply the feasibility and conceptual design process to building services or architectural engineering projects.
MLO3	3	Conduct an appropriate research/independent learning programme relevant to unfamiliar problems within a specific building services or architectural engineering project, synthesise, analyse, critically evaluate and where appropriate apply the research findings.
MLO4	4	Apply the detailed design process to a complex building services or architectural engineering project.
MLO5	5	Work effectively as part of a collaborative professional team.
MLO6	6	Critically evaluate design proposals and the methods by which a project was managed and progressed.

Module Content

Outline Syllabus	The philosophy of engineering design supported by case studies and historical examples. The wider issues relating to sustainability and to the economic, financial, political, social and environmental aspects of design. Client requirement: Needs analysis: Interpretation and assimilation of the project brief, scope and requirements of the project. Risk evaluation: evaluation of the financial, environmental, social, economic and other relevant risks to the project. Feasibility: identification and analysis of possible solutions conceptual design for Building Services Engineering works. Detailed proposal: Development of detailed design. Evaluation: Critical analysis of proposals. Planning and task management: planning, task management, work allocation. Individual research into an aspect related to the design. Application of industry standard software for analysis, simulation, coordination, planning, detailing and presentation
Module Overview	
Additional Information	This module brings together the students' learning throughout their study, and as such synthesises their learning, skill acquisition, and evaluative abilities.

Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Module Learning Outcome Mapping
Centralised Exam	PROJECT APPRAISAL AND ANALYSIS	15	0	MLO1
Report	FEASIBILITY, CONCEPT, DESIGN	45	0	MLO2, MLO4, MLO5
Report	INDIVIDUAL RESEARCH	40	0	MLO3, MLO6

Module Contacts

Module Leader

Contact Name	Applies to all offerings	Offerings
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Partner Module Team

Contact Name	Applies to all offerings	Offerings
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