

Building Engineering Collaborative Project 2

Module Information

2022.01, Approved

Summary Information

Module Code	5221BEUG
Formal Module Title	Building Engineering Collaborative Project 2
Owning School	Civil Engineering and Built Environment
Career	Undergraduate
Credits	20
Academic level	FHEQ Level 5
Grading Schema	40

Teaching Responsibility

LJMU Schools involved in Delivery
Civil Engineering and Built Environment

Learning Methods

Learning Method Type	Hours
Lecture	25
Tutorial	35

Module Offering(s)

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

Aims and Outcomes

Aims	This module aims to bring together different professions as represented by Level 5 students from the built environment disciplines and to enable them to work collaboratively on a BIM (Building Information Modelling) project. It highlights the interdisciplinary nature of the construction and property roles using industry standard software to support the decision making process in a sustainable environment. In addition this module provides a vehicle for Building Services and Architectural Engineering students to develop and refine the skills necessary for the management and successful completion of a significant project. This will include attention to building services systems, function, form and aesthetics of buildings.
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After completing the module the student should be able to:

Learning Outcomes

Code	Number	Description
MLO1	1	Apply negotiating skills in a collaborative environment.
MLO2	2	Apply built environment principles and techniques to a complex construction project by utilising appropriate architectural, engineering and construction software to facilitate the decision making process.
MLO3	3	Reflect upon their developmental learning, performance and or achievement and to plan for their personal, educational and career development.
MLO4	4	Interpret project briefs and assimilate information from a variety of sources in order to define and contextualize the scope and complexity of a project.
MLO5	5	Propose, test and select feasible solutions to specified tasks and problems across a range of building services related subjects.
MLO6	6	Apply, evaluate and justify appropriate solutions to specified tasks and problems across a range of building services related subjects.

Module Content

Outline Syllabus	This module will facilitate the learning process by enabling students to apply previously gained knowledge and theory in a practical context, working collaboratively using a 3D model on a BIM enabled project in order to negotiatedecisions in relation to specific tasks. Within the module itself the following areas will be considered and applied to the project: BIM software technologies, negotiation skills, sustainable design, cost, programme and legal considerations.Assessment will be a group presentation to a panel comprising of academic staff and representatives from industry and peer assessed and a personal development statement linked to PSRB competencies.The module also serves as a vehicle for the application and development of the student's knowledge, skills and understanding developed in other modules of the course. An essential feature of the module is the integration of the various modules within a particular building engineering vocational pathway.The structure and detail of the project calls for:Needs Analysis: Interpreting and assimilating the project brief, client familiarisation, scope and requirements of the project, aims, objectives and targets, identification of legislative and other constraints.Feasibility: Investigation and analysis of possible solutions.Detailed Proposals: Selection and development of detailed solutions to set tasks.Evaluation: Critical analysis of proposals.Planning and task management: Planning, time management, work allocation, progress review, standards and quality control, record keeping and documentation.Evaluation, Presentation & Review: review and evaluation of final outcomes, presentation of outcomes and final documentations via written, verbal, graphical and multi-media presentations
Module Overview	This module aims to bring together different professions from the built environment disciplines and to enable you to work collaboratively on a BIM (Build Information Modelling) project. It highlights the nature of the construction and property roles using industry standard software to support the decision making process in a sustainable environment. In addition, this module will allow you to develop and refine the skills necessary for the management and successful completion of a significant project. This will include attention to building services systems, function, form and aesthetics of buildings.
Additional Information	There are two main themes addressed by this module:1. The module requires production of a suitable work derived project based on industry standard collaboration and application of industry standard software and it is supported by the other modules within the second year programme.Collaborative work is a key theme of the module; the intention being to simulate the experience of the work place and work place activity, endorsed and approved by the involvement of employers and stakeholders as relevant to the workplace generally.2. This module also provides the students with an opportunity to demonstrate their learning from all modules across their programme. The module requires the students to complete a specific building engineering project working within small teams, which should be multi-disciplinary where the mixture of specialisms within a student cohort allow.In this module, the knowledge learning outcomes are K1, K2, K3, K4, K7, the behaviours learning outcomes are B1, B2, B4, B7 and the skills learning outcomes are S1, S2, S7.

Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Module Learning Outcome Mapping
Portfolio	DESIGN PROJECT	50	0	MLO1, MLO2, MLO3
Portfolio	PROJECT MANAGEMENT FOLIO	50	0	MLO4, MLO5, MLO6

Module Contacts

Module Leader

Contact Name	Applies to all offerings	Offerings
Saiful Bhuiyan	Yes	N/A

Partner Module Team

Contact Name	Applies to all offerings	Offerings
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