

Engineering Research Project

Module Information

2022.01, Approved

Summary Information

Module Code	6107BEUG
Formal Module Title	Engineering Research Project
Owning School	Civil Engineering and Built Environment
Career	Undergraduate
Credits	24
Academic level	FHEQ Level 6
Grading Schema	40

Teaching Responsibility

LJMU Schools involved in Delivery
Civil Engineering and Built Environment

Learning Methods

Learning Method Type	Hours
Lecture	18

Module Offering(s)

Display Name	Location	Start Month	Duration Number Duration Unit
SEP-CTY	CTY	September	28 Weeks

Aims and Outcomes

Aims	To enable students to complete a substantial piece of individual work and build on their expertise in a Civil Engineering subject. To develop students research, time management, presentation and written communication skills.
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After completing the module the student should be able to:

Learning Outcomes

Code	Number	Description
MLO1	1	Identify a research question, problem or hypothesis and establish aims and objectives to support the investigation.
MLO2	2	Collate, and appraise existing knowledge in an Engineering field relevant to your programme and present a critical evaluation in the form of a literature review.
MLO3	3	Develop and refine a research and data collection strategy appropriate to the research question / problem posed.
MLO4	4	Source, collect, and analyse relevant and original qualitative and / or quantitative data.
MLO5	5	Conduct an appropriate practical and/or laboratory programme to validate theoretical research.
MLO6	6	Synthesise, analyse and critically evaluate the research findings using reasoned and logical arguments within a structured written framework.
MLO7	7	Present the outcomes and methodology of your research

Module Content

Outline Syllabus	1. Introduction to the Dissertation - The selection of a Research Topic and formulation of a research question.- Establishing a research aim and setting / tailoring objectives to fulfil that goal- The structure and purpose of a dissertation2. Research Approaches and Strategies- The Inductive versus Deductive Approach- Qualitative and Quantitative Research- Data Collection Strategies (Interviews, Field Tests, Lab Tests, Surveys, Questionnaires, Case Studies)- The Knowledge Database. Effective Literature Searching and Literature Reviews3. Data Collection and Analysis - Data Collection Tools including Bristol on-line surveys- Qualitative and Quantitative Data Analysis - Data Analysis tools including SPSS and NVivo
Module Overview	
Additional Information	The dissertation enables students to personally select, and complete an in-depth study on, a topic related to Civil Engineering. The module develops students' practical research skills and enhances their knowledge and expertise in Civil Engineering. As the completion of a dissertation is principally student-led the module offers the opportunity to further develop time management, presentation and communication skills.

Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Module Learning Outcome Mapping
Report	Report	5	0	MLO1
Presentation	Presentation	10	0	MLO7
Dissertation	Dissertation	85	0	MLO2, MLO3, MLO4, MLO5, MLO6

Module Contacts

Module Leader

Contact Name	Applies to all offerings	Offerings
Patryk Kot	Yes	N/A

Partner Module Team

Contact Name	Applies to all offerings	Offerings
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