

## Liverpool John Moores University

Title: ARCHITECTURAL ENGINEERING PROJECT 1  
Status: Definitive  
Code: **4217BEUG** (122817)  
Version Start Date: 01-08-2021

Owning School/Faculty: Civil Engineering and Built Environment  
Teaching School/Faculty: Civil Engineering and Built Environment

Team	Leader
Laurence Brady	Y
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**Academic Level:** FHEQ4      **Credit Value:** 20      **Total Delivered Hours:** 50  
**Total Learning Hours:** 200      **Private Study:** 150

### Delivery Options

Course typically offered: Semester 2

Component	Contact Hours
Lecture	20
Workshop	30

**Grading Basis:** 40 %

### Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Report	AS1	FEASIBILITY STUDY AND INITIAL DESIGN PROPOSALS	40	
Portfolio	AS2	DETAILED DESIGN DOCUMENTATION & PRESENTATION	60	

### Aims

*To introduce the fundamental skills needed for the design process;*

*To equip the student with the fundamental tools, including the necessary IT skills necessary to carry out an architectural engineering design project;*

*To develop and refine the student's written, verbal, graphical and presentation skills.*

## **Learning Outcomes**

After completing the module the student should be able to:

- 1 Investigate a range of architectural engineering design solutions for a simple commercial or domestic building.
- 2 Use appropriate CAD and IT packages to produce architectural engineering design documentation.
- 3 Communicate design solutions graphically, verbally and in writing.

## **Learning Outcomes of Assessments**

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

FEASIBILITY STUDY, DESIGN PROP	1	2
DESIGN DOCUMENTATION & PRES	2	3

## **Outline Syllabus**

*Students will be given the construction details of a non-complex commercial or domestic building and will be required to investigate sustainable and practical architectural engineering design solutions. Students will produce feasibility studies, design drawings, schedules, reports and associated documentation related to their design. The architectural engineering aspects should complement the building services systems, building function, building form and aesthetics to provide sustainable, energy efficient and workable solutions.*

## **Learning Activities**

Students will be introduced to the necessary basics of interpreting building drawings and industry standard design methods, including practice with relevant software packages. Students will be taught the theoretical aspects of energy efficient and sustainable engineering solutions for non-complex buildings, and will be given the opportunity to apply these to a real building in conjunction with the necessity for positive building aesthetics.

## **Notes**

The module is delivered through a multi-task project which requires students to produce designs based on the engineering and aesthetic requirements of a non-

complex building. Interdisciplinary working is actively encouraged and facilitated and it is envisaged that students will be working alongside Building Services Engineering students on a complementary design project module.