

Liverpool John Moores University

Title: BUILDING ENGINEERING AND DETAILING
Status: Definitive
Code: **7078BEPG** (120411)
Version Start Date: 01-08-2015

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

| Team | Leader |
|-------------------|--------|
| Spencer Kelly | Y |
| Michael Farragher | |

Academic Level: FHEQ7 **Credit Value:** 20.00 **Total Delivered Hours:** 33.00
Total Learning Hours: 200 **Private Study:** 167

Delivery Options

Course typically offered: Semester 2

| Component | Contact Hours |
|-----------|---------------|
| Lecture | 8.000 |
| Practical | 22.000 |
| Tutorial | 3.000 |

Grading Basis: 40 %

Assessment Details

| Category | Short Description | Description | Weighting (%) | Exam Duration |
|--------------|-------------------|--------------------------------|---------------|---------------|
| Report | AS1 | Illustrated Design Report | 80.0 | |
| Presentation | AS2 | Verbal presentation & critique | 20.0 | |

Aims

To enable the student to apply knowledge and understanding from previous and concurrent modules to produce a comprehensive design solution for a large or complex building, that reflects the level of technical and professional expertise expected of a masters graduate in architectural engineering.

Learning Outcomes

After completing the module the student should be able to:

- 1 Research, analyse and evaluate the requirements of the building type and study design precedents in order to inform the outline proposals.
- 2 Develop and present outline proposals that respond to user requirements, site, context, climate and culture.
- 3 Develop detailed design proposals to address a range of factors including technical excellence, environmental performance, control of costs and building performance & maintainability.
- 4 Present the above information, using a variety of techniques, to the professional standard expected of a masters graduate in architectural engineering.

Learning Outcomes of Assessments

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

| | | | | |
|---------------------------|---|---|---|---|
| Illustrated Design Report | 1 | 2 | 3 | 4 |
| Presentation | 4 | | | |

Outline Syllabus

This module is predominantly student-led. Content will be determined by the specific characteristics of the project vehicle and the direction followed by the student. Key lectures will be provided to reinforce previously studied topics including:

*Building engineering & technology,
Environmental performance,
Performance in use and maintainability,
Technical detail and design solutions.*

Learning Activities

This module will be based on the design of a complex live or simulated building project.

The following learning and teaching methods will be employed: site visits and key lectures as appropriate, supervised studio work, practical IT sessions, tutorials and individual critiques. site visits.

Key lectures, plus site visit if required, will provide briefing, background and appropriate information. This may involve guest lecturers or client representatives where necessary.

Some initial preparatory studies may be carried out in small groups depending on the nature of the project.

Students will be expected to maintain a learning journal throughout the module in the form of a portfolio document to record their design process and demonstrate their

skills in critical analysis, synthesis, evaluation and reasoned decision making. The reflective Design Journal will be largely graphical in content containing sketches and annotated drawings with supporting written commentary where appropriate.

The use of critiques as formative assessment will enable students to receive feedback on individual development and progress.

Notes

This module will enable the student to apply knowledge and understanding from previous and concurrent modules to produce a comprehensive design solution for a large or complex building, that reflects the level of technical and professional expertise expected of a masters graduate in architectural engineering.