

## Liverpool John Moores University

Title: ENGINEERING MEASUREMENT  
Status: Definitive  
Code: **6209BEUG** (122647)  
Version Start Date: 01-08-2021

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

Team	Leader
Dianne Marsh	Y
Tom Dowd	
James Hartwell	

**Academic Level:** FHEQ6      **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	10
Workshop	40

**Grading Basis:** 40 %

### Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Report	AS1	MEASUREMENT REPORT	50	
Test	AS2	IN-CLASS TEST	50	

### Aims

*This module consolidates and builds upon the student's learning to date in the fields of measurement and BIM technologies and processes. Students will examine the most effective quantification techniques for complex construction and engineering projects through analysis of and comparison between available measurement protocols.*

## Learning Outcomes

After completing the module the student should be able to:

- 1 Appraise and apply the rules of the standard method of measurement to prepare project documentation related to complex construction, building services and civil engineering projects.
- 2 Evaluate emerging practices of the Quantity Surveyor in relation to sustainable design, and environmental and performance considerations.
- 3 Critically evaluate the BIM protocols, processes and software appropriate to the role of the Quantity Surveyor/Estimator working in a collaborative environment throughout the project life cycle.

## Learning Outcomes of Assessments

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

MEASUREMENT REPORT	1	3
IN-CLASS TEST	2	3

## Outline Syllabus

*Design economics*

*Cost planning*

*Benchmarking*

*Value engineering*

*Building services measurement*

*Large scale and high rise construction projects measurement.*

*Civil engineering measurement*

*Tender documentation for a variety of different procurement options.*

*BIM protocols*

*BIM Processes*

*Application and evaluation of BIM software applicable to the role of the Quantity Surveyor/ Estimator.*

*Development of contract practice skills in relation to pre and post contract management*

## Learning Activities

Lectures and workshops

## Notes

This module will provide students with an understanding of BIM as it relates to the QS and engineering measurement.

