

Liverpool John Moores University

Title: ADVANCED MEASUREMENTS FOR CONSTRUCTION (AMC)
Status: Definitive
Code: **5503ICBTQS** (126952)
Version Start Date: 01-08-2021

Owning School/Faculty: Civil Engineering and Built Environment
Teaching School/Faculty: ICBT, Colombo

Team	Leader
Alison Cotgrave	Y

Academic Level: FHEQ5 **Credit Value:** 15 **Total Delivered Hours:** 77

Total Learning Hours: 150 **Private Study:** 73

Delivery Options

Course typically offered: Semester 1 and Summer

Component	Contact Hours
Lecture	45
Practical	15
Tutorial	15

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Essay	AS1	Assignment (1500 Words)	30	
Exam	AS2	Examination	70	2

Aims

Aim(s) of the module is to demonstrate an understanding and apply principles of measurements to produce Bill of Quantities of various types & forms of buildings structures, structural elements, internal, external finishing works & related services and also to apply principles of measurements to produce Bill of Quantities of civil engineering works.

Learning Outcomes

After completing the module the student should be able to:

- 1 Identify standard methods & techniques of measurements in building services & external works and civil engineering works.
- 2 Assess various standards & Code of Procedure or the measurement of building services & external works and civil engineering works.
- 3 Demonstrate the knowledge & apply principles & codes of measurement to produce un-priced/priced Bill of Quantities related to building services & civil engineering works.
- 4 Analyse computer based tools & applications of measurements and future of Quantity Surveying practice with advance IT applications for measurement works.

Learning Outcomes of Assessments

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

Assignment	1	4
Examination	2	3

Outline Syllabus

Techniques & methods of taking off measurements from design details: Take-off sheets, abstract sheet, query sheets

*Taking off site measurement (Actual measurement): Joint measurement procedures
Common mistakes & misconceptions of taking off measurements*

Standards & Code of Procedure of measurement of building works, related services & external works and civil engineering works: SMM7/ CESMM3/ NRM2

Use of SMM7/ CESMM3 /NRM2 and take-off measurements

Preparation of complete Bill of Quantities (Priced)

Introduction to computer based tools for taking off measurements: CATO systems

Learning Activities

Students will be supported in their learning, to achieve the above learning outcomes, in the following ways:

By a series of lectures and theoretical approaches together with numerous tutorials to identify and assess standard methods and techniques of measurements in building works, related services & external works and civil engineering works, various standards & code of procedure of taking-off measurement in building works, related services & external works and civil engineering works.

In-class practical sessions and group activities to apply and produce principles & codes of measurement to produce Bill of Quantities related of building & civil engineering works.

Self-managed studies to familiarize methods of taking off measurements from

complex design details, standard codes of taking off measurements, description writing and incorporate schedule of rates to produce Bill of Quantities. Techniques & methods of taking off measurements, Standards & code of procedure of taking off measurements & preparation of Bill of Quantities are some key features of this module. A recommended resource list - indicating key reading, virtual and physical learning assistance, is provided to help enable students to undertake self-directed study.

Notes

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