



UNIVERSITI TEKNOLOGI MARA

BCM413: BUILDERS QUANTITIES AND ESTIMATING I

Course Name (English)	BUILDERS QUANTITIES AND ESTIMATING I APPROVED
Course Code	BCM413
MQF Credit	3
Course Description	the general aim of this course is to introduce the principles of measurement, description of items, the interpretation and the understanding of standard method of measurement of building works(SMM) and the documentation use in tendering. The second part, which is estimating introduces the tendering process, contract system and the different methods of estimating and focuses on the process of building unit rates of the building trades
Transferable Skills	Measuring and costing skill Estimating skill
Teaching Methodologies	Lectures, Tutorial
CLO	CLO1 Determine appropriate quantities and cost CLO2 Use principle in measurement CLO3 Use method in estimating
Pre-Requisite Courses	No course recommendations
Topics	
1. Documentation 1.1) The various documents in common use, drawings, schedules, specification, bill of quantities and schedule of rates. 1.2) The structure and parts of the various format in which the document may appear. 1.3) The purpose, usage and importance of each document related to value and cost.	
2. Measurement 2.1) Methods of recording measure both from drawings and site. 2.2) Rules and principles of measurement as defined in SMM. 2.3) Methods of processing measurement for pre and post contract. 2.4) Measurements of building trades 2.5) Introduction to Quantity Surveying, SMM and measurements. 2.6) Measurement of work below floor level finish 2.7) Measurement of super structure 2.8) Measurement of wall	
3. Computer application in measurement works 3.1) This topic will be covered in tutorial	
4. Introduction to Estimating 4.1) Interpretation and importance of estimating, the parties involved, roles and responsibilities of an estimator, types of estimates, cost estimates format. 4.2) 4.3) This topic will be covered in tutorial	
5. Estimating Practice & Process 5.1) Pre-selection, decision to tender, project appreciation, programming the estimates, collection and calculation of cost information, estimating the direct costs, calculating on-costs, completing cost estimates, final review and estimates reports, tender submission and action after submitting a tender.	
6. Contract and Tender 6.1) Types of contract, tender and quotation.	

7. Tendering Process.

7.1) Preparation of tender documents, content of Tender Document, calling of tenders, tender analysis and report, selection of contractors

8. Method of Estimating

8.1) Volumetric, floor area, unit rates, storey enclosure, approximate estimate and bill of quantities.

8.2)

8.3) This topic will be covered in tutorial

9. Estimating Cost

9.1) Cost of building materials, labour, plant and equipment, administration and profit.

10. Building up rates and quantifying of materials for:

10.1) Machineries and plant

10.2) Excavation work

10.3) Piling

10.4) Concrete work

10.5) Reinforcement

10.6) Formwork

10.7) Brickwork

Assessment Breakdown	%
Continuous Assessment	50.00%
Final Assessment	50.00%

Details of Continuous Assessment	Assessment Type	Assessment Description	% of Total Mark	CLO
	Assignment	PART A	15%	CLO2
	Assignment	PART B	15%	CLO3
	Test	PART A	10%	CLO2
	Test	PART B	10%	CLO3

Reading List	This Course does not have any book resources
Article/Paper List	This Course does not have any article/paper resources
Other References	<ul style="list-style-type: none"> • n/a Abdullah A, A.Rashid,K 2003, <i>Pengukuran Kuantiti Bangunan</i>, Pearson Prentice Hall, Malaysia • n/a Ashworth A 2007, <i>Willi's Practice and Procedure For The Quantity Surveying</i> • n/a Peurifory, Robert L., Oberlender, Garold D., 2002, <i>Estimating Construction Costs</i>, McGraw-Hill, Boston