



UNIVERSITI TEKNOLOGI MARA

BCT593: BUILDING MEASUREMENT & ESTIMATING

Course Name (English)	BUILDING MEASUREMENT & ESTIMATING APPROVED
Course Code	BCT593
MQF Credit	2
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	skill in measuring and estimating
Teaching Methodologies	Lectures, Tutorial
CLO	CLO1 Apply various types of tender and estimating methods of construction works CLO2 Estimate the quantities and cost of construction works. CLO3 Display good numerical skills for measurement and estimation of construction works
Pre-Requisite Courses	No course recommendations
Topics	
1. 1.0 Introduction to Construction Measurement 1.1) 1.1 To understand the purposes of construction measurement of building works. 1.2) 1.2 Identify the various types of document use. i.e drawings, schedules, specif	
2. 2.0 Building Measurement 2.1) 2.1 Work Below Lowest Floor Finished (Pad) 2.2) 2.2 Roof	
3. 3.0 Introduction to Construction Cost Estimating 3.1) 3.1 Interpretation and importance of estimating, the parties involved and roles of an estimator	
4. 4.0 Contract and Tender, Tendering Process 4.1) 4.1 Types of Tender and Contract 4.2) 4.2 Pre and Post Tender	
5. 5.0 Method of Estimating 5.1) 5.1 Floor Area Method 5.2) 5.2 Cubic Method 5.3) 5.3 Unit Method 5.4) 5.4 Approximate Quantities 5.5) 5.5 Storey Enclosure Method	
6. 6.0 Building Up rate 6.1) 6.1 Machineries and plant 6.2) 6.2 Excavation work 6.3) 6.3 Concrete work 6.4) 6.4 Formwork 6.5) 6.4 Roof Finishes 6.6) 6.5 Reinforcement	

Assessment Breakdown	%
Continuous Assessment	50.00%
Final Assessment	50.00%

Details of Continuous Assessment	Assessment Type	Assessment Description	% of Total Mark	CLO
	Practical	Measurement	30%	CLO3
	Writing Test	Tender & contract	10%	CLO1
	Writing Test	Estimating	10%	CLO2

Reading List	Recommended Text
	<ul style="list-style-type: none"> • Atton, W. 1992, <i>Estimating Applied for Building</i>, Godwin • Geddes, S. 1996, <i>Estimating for Building & Civil Engineering</i>, Butterworth Heinemann • Hassan, S., D. 2011, <i>Measurement of Civil Engineering Works</i>, UPENA Shah Alam, Malaysia • Abdullah, A., A. Rashid, K. 2003, <i>Pengukuran Kuantiti Bangunan</i>, Pearson Prentice Hall. • Abdullah, A. 2006, <i>Anggaran Kos Kerja Bangunan</i>, Edisi Kedua Ed., Pearson Prentice Hall • Greenhalgh, B., & Squires, G. 2011, <i>Introduction to Building Procurement</i>, Spon Press • Sandra Lee, William Trench and Andrew Willis 2012, <i>Willis's Element of Quantity Surveying</i>, 11th Ed., Wiley Blackwell West Sussex, UK • Sabariah Haji Hassan 2011, <i>Measurement of Civil Engineering Work Based on the Malaysian CESMM</i>, 2011 Ed., UPENA, UiTM Shah Alam Malaysia • Mastura Jaafar, Lim Yoke Mui, Izhan Yahaya 2017, <i>Elementary Estimating For Building Works</i>, PENERBIT UNIVERSITI SAINS MALAYSIA Malaysia [ISBN: 978-983-861-6]

Article/Paper List	This Course does not have any article/paper resources
Other References	This Course does not have any other resources