UNIVERSITI TEKNOLOGI MARA

BCM453: BUILDERS QUANTITIES AND ESTIMATING II

Course Name (English)	BUILDERS QUANTITIES AND ESTIMATING II APPROVED
Course Code	BCM453
MQF Credit	3
Course Description	This course provides in-depth understanding and ability to measure and estimate for building works. The measurement part will comprise the principles of measurement for doors, windows, roof and finishes and mechanical and electrical services. The estimating part covers wood works, steel works, roofing, plastering, finishes, painting, glazing work, mechanical and electrical services, preliminaries, prime cost, provisional sum and pro rata.
Transferable Skills	Measuring and costing skill Estimating Skill Information Management skill
Teaching Methodologies	Lectures, Tutorial
CLO	CLO1 Measure quantities from drawings and site measurement CLO2 Compute quantities from drawings and site measurement CLO3 Apply methods of estimating to obtain accurate estimates for building trades
Pre-Requisite Courses	No course recommendations

Topics
1. Overview 1.1) Understanding the nature and significance of quantity surveying in tendering documents. 1.2) Understand the principles and uses of the SMM. 1.3) Interpreting drawings. 1.4) Abstracting quantities.
2. Measurement 2.1) Measurement of doors 2.2) Measurement of windows 2.3) Measurement of roof 2.4) Measurement of floor finishes 2.5) Measurement of wall finishes 2.6) Measurement of ceiling 2.7) Measurement of painting 2.8) Measurement of mechanical and electrical works: water supply and sanitary fittings, soil & waste pipe, electrical & air conditioning
3. Building up rates and quantifying of materials for: 3.1) Woodwork 3.2) Steelwork 3.3) Roofing : trusses, covering & drainage 3.4) Plastering 3.5) Finishes : wall & floor 3.6) Painting 3.7) Glazier 3.8) Mechanical and electrical works: water supply and sanitary fittings, soil and waste pipe, electrical and air-conditioning.
4. Preliminaries 4.1) 1. Definition 4.2) 2. Items to be Priced 4.3) 3. Calculation for preliminaries items 4.4) 4.Factors that influenced the costs

5. Prime Cost and Provisional Sum 5.1) 1. Definition 5.2) 2. Relationship between the respective parties
6. Pro Rata 6.1) 1. Definition

Assessment Breakdown	%
Continuous Assessment	50.00%
Final Assessment	50.00%

Details of Continuous Assessment

Assessment Type	Assessment Description	% of Total Mark	CLO
Assignment	n/a	25%	CLO2
Assignment	n/a	25%	CLO3

Reading List

Recommended Text

- **Ashworth, A, 2007, *Willis's Practice and Procedure For The Quantity Surveying, 12th Edition*, 12 Ed.**
- **Oberlender, G 2002, *Estimating Construction Costs***
- **Atton,W 1992, *Estimating Applied for Building*, 5th Ed., Godwin**
- **Seeley,I.H 1988, *Building Quantities Explained*, 4th Ed., Macmillan London**

Article/Paper List

This Course does not have any article/paper resources

Other References

- **book Abdullah,A.,A.Rashid 2003, *Pengukuran Kuantiti Bangunan*, Prentice Hall, Malaysia**
- **book Ashwoth,A 2007, *Willi's Practice and Procedure for the Quantitiy Surveying***
- **book Peurifory, Robert L,Oberlender, Garold D 2002, *Estimating for Building & Civil Engineering* , Butterworth Heinemann**
- **book Seeley, Ivor H 1997, *Quantitiy Surveying Practice***