

QUANTITY SURVEYING COURSES

ND Curriculum and Module Specifications in Building Technology

PROGRAMME: Building Technology ND			
COURSE: Measurement and Specification		Course Code: QUS 102	Contact Hours: 2-0-0
COURSE SPECIFICATION			
WEEK	General Objective 1.0: Understand the purpose of preparing a bill of Quantities using the various methods of processing Dimensions.		
	Specific Learning Outcome	Teacher's Activities	Resources
1-4	1.1 Explain the purpose of preparing bills of quantities. 1.2 Describe the application of computer in producing a bill of quantities. 1.3 State which item works that are normally covered by the preliminary section of the bill. 1.4 Write typical preamble clauses for incorporation into a bill.	<ul style="list-style-type: none"> ▪ Demonstrate the relevance of bills of ▪ Quantities in construction processes. ▪ Show a typically computer produced bill of quantities. ▪ The application of the computer in the production of bill of quantities. ▪ Explain the items. 	<ul style="list-style-type: none"> ▪ Chalk Board.
	General Objective 2.0: Know all the different kinds of schedules required in Producing a bill of quantities.		
5-6	2.1 Prepare schedules of: (a) Doors and windows (b) Finishings 2.2 Prepare drainage schedules 2.3 State the purposes of the schedule of basic rates.	<ul style="list-style-type: none"> ▪ Demonstrate using drawings, bill of quantities and assignments. ▪ Demonstrate using drawings, bill of quantities and assignments ▪ Explain Rates 	<ul style="list-style-type: none"> ▪ Chalk Board , Drawings, BOQ ▪ Chalk Board, Drawings, BOQ
	General Objective 3.0: Know how to write simple specifications to Various work sections.		
7-15	3.1 State the purposes and uses of specification. 3.2 State the sources of information for writing specifications. 3.3 Write clear concise and accurate specification of materials and Workmanship for Sand and Cement. 3.4 Write clear, concise and accurate specification of materials and workmanship for Gravel and concrete work. 3.5 Write clear, concise and accurate specification of materials, and workmanship for Excavation and Earthwork. 3.6 Write clear, concise and accurate specification for materials and workmanship for brickwork, blockwork and masonry 3.7 Write, clear, concise and accurate specification of materials and workmanship for timber woodwork	<ul style="list-style-type: none"> ▪ Show a typical specification work ▪ Explain relevant specification in ▪ Building works. 	<ul style="list-style-type: none"> ▪ Building works. ▪ Building works ▪ Chalk Board.

Assessment: Coursework: 20% Course test: 20% Practical: 0% Examination: 60%

Competency: The students should be able to prepare quantities, schedules and bill of quantities

Reference: 1. Ivor H. Seeley & Roger Winfield "Building Quantities Explained" 5th Edition
 2. Ivor H. Seeley "Building Quantities explained" 3rd Edition

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PROGRAMME. Building Technology ND		Course Code: QUS-201	Contact Hours: 2-0-2
COURSE. Building Measurement and Specifications			
COURSE SPECIFICATION. Theoretical Content			
WEEK	General Objective 1.0: Understand the duties and functions of a Quantity Surveyor	Teacher's Activities	Resources
	Specific Learning Outcome		
1	1.1 State the duties which a quantity surveyor is expected to perform. 1.2 Explain the work of the consultant Quantity Surveyors in relation to the Quantity Surveyor employed by a construction organization.	<ul style="list-style-type: none"> • Invite a practising Quantity Surveyor to explain his duties with a contracting firm and consulting firm. 	<ul style="list-style-type: none"> • Chalk & Board
	General Objective 2.0: Understand the relationship between the Quantity Surveyor and the other members of the construction team		
2	2.1 Describe the relationship between the quantity surveyor and other members of the building team.	<ul style="list-style-type: none"> • Invite professionals in the teams to narrate their function to the students. 	<ul style="list-style-type: none"> • Chalk & Board
	General Objective 3.0: Understand the uses of standard method of measurement for building works		
3	3.1 Explain the historical Background of SMM 3.2 Identify various works section heading and their unit of measurement. 3.3 Explain the standard method of measurement of building works. 3.4 Determine where and when to use the various unit of measurement.	<ul style="list-style-type: none"> • Demonstrate using the building models, sections, and SMM. 	<ul style="list-style-type: none"> • Chalk & Board
	General Objective 4.0: Know how to process dimensions, collecting quantities and preventing them for all works sections, in traditional elemental and annotated bill forms.		
4	4.1 Explain method of booking dimensions and be able to use them where and when necessary. 4.2 Prepare an abstracting sheet using traditional methods. 4.3 Identify the difference between taking-off, abstracting, direct billing, cut and shuffle and billing sheet. 4.4 State the various methods of bills of quantities. 4.5 Explain the primary purpose and other uses of the Bill of Quantities. 4.6 Distinguish between the bill formats – traditional, elemental and operational.	<ul style="list-style-type: none"> • Demonstrates using examples and practical assignments. 	<ul style="list-style-type: none"> • Chalk & Board
	General Objective 5.0: Understand the method of quantities for work involve in simple buildings.		
5	5.1 Take off quantities for simple substructure works. 5.2 Take off quantities for simple wall construction.	<ul style="list-style-type: none"> • Demonstrate using drawing and models use practical assignments. 	<ul style="list-style-type: none"> • Chalk, board • Drawings and • Models

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General Objective 6.0: Know how to take-off quantities for work involved in traditional domestic buildings and simple industrial buildings of not more than two storeys			
6 - 8	6.1 Take off quantities for sub-structural work including undulating sloping sites, stepped foundation and basements. 6.2 Take off quantities for simple wall construction in super structure. 6.3 Take off quantities for all kinds of floor construction. 6.4 Take off quantities for simple roof construction and coverings.	<ul style="list-style-type: none"> ▪ Demonstrates using examples from drawings and models. Use practical assignments. 	<ul style="list-style-type: none"> ▪ Chalk & Board ▪ Drawing and ▪ Models
9 - 12	6.5 Take-off quantities for doors and windows including adjustment to form. 6.6 Take-off quantities for building works for simple re-enforced concrete framework. 6.7 Take-off quantities for building works for simple steel framing and trusses. 6.8 Take off quantities for building works for staircases in timber and concrete. 6.9 Take-off quantities for building works for simple drainage work and external works.		
General Objective 7.0: Know how to produce bills of quantities using various methods			
13	7.1 Prepare bills of quantities using: <ol style="list-style-type: none"> a. The method of abstracting. b. The method of direct billings. 	<ul style="list-style-type: none"> ▪ Use Drainage, take off sheets, and practical assignments. 	<ul style="list-style-type: none"> ▪ Chalk, board. ▪ Drawings and ▪ Models
14	7.2 Describe accurately how to prepare a bill of quantities using the cut and shuffle method.	<ul style="list-style-type: none"> ▪ Use drawings, take-off sheets and practical assignments. 	- do -

Assessment: Coursework: 20% Course test: 20% Practical: 0% Examination: 60%

Competency: The students should be familiar with the members of the team in the construction industry and should be able to prepare quantities and bills for domestic and industrial buildings.

References:

1. T. C. Oworoh "Principles of measurement of Buildings" volume one
2. Ivor H. Sealey "Advanced Building measurement" 2nd Edition macmillan