



THE FEDERAL UNIVERSITY OF TECHNOLOGY, AKURE

Department of Quantity Surveying

QSV 201 – Principles of Measurement & Description I

COURSE PARTICULARS

Course Code: QSV 201

Course Title: Principles of Measurement and Description I

No. of Units: 3

Course Duration: Two hours of lecture and one hour of tutorial per week for 15 weeks.

Status: Compulsory

Course Email Address: qsv201@futa.edu.ng

Course Webpage:

<http://www.qsv.futa.edu.ng/courseschedule.php?coursecode=QSV%20201>

Prerequisite: NIL

COURSE INSTRUCTORS

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COURSE DESCRIPTION

This is a course designed for students in quantity surveying and other allied disciplines. That is, the Architecture, Building and Estate Surveying students will be given the opportunity to understand the rudiments of building measurement. The main focus of the course is to impact to the students the major traditional functions of a quantity surveyor in the ways they

communicates/interacts with other construction professionals in the construction industry, principles of building measurement and the preparation of the bill of quantity. Topics to be covered include the introduction to the methods of communication in the construction industry, applied mensuration and bill preparation process with emphasis on the communication in the construction industry, the use of the Building and Engineering Standard Methods of Measurement (BESMM 3), bill preparation processes and the measurement of simple building foundation.

COURSE OBJECTIVES

The objectives of this course are to:

- introduce students to the methods of communication in the construction industry;
- introduce students to the use of the standard methods of measurement (SMM/BESMM);
- understands the mechanics of building measurement and processes involved in preparing a typical bill of quantity; and
- provide students with the knowledge and skills of measuring a simple strip foundation of buildings.

COURSE LEARNING OUTCOMES / COMPETENCIES

Upon successful completion of this course, the student will be able to:

(Knowledge based)

- explain the methods of communication in the construction industry in terms of the professionals involved, instruments used and flow of communication;
- understands how the SMM is being used for determining the quantity of building items and their descriptions;
- explain the processes and formats that can be employed for the preparation of a typical bill of quantity; and
- measure all the items involved in the construction of a simple foundation.

GRADING SYSTEM FOR THE COURSE

This course will be graded as follows:

Class Attendance	5%
Assignments	20%
Test(s)	15%
<u>Final Examination</u>	<u>60%</u>
<u>TOTAL</u>	<u>100%</u>

GENERAL INSTRUCTIONS

Attendance: It is expected that every student will be in class for lectures and also participate in all practical exercises. Attendance records will be kept and used to determine each person's qualification to sit for the final examination. In case of illness or other unavoidable cause of absence, the student must communicate as soon as possible with any of the instructors, indicating the reason for the absence.

Academic Integrity: Violations of academic integrity, including dishonesty in assignments, examinations, or other academic performances are prohibited. Students are not allowed to make copies of another person's work and submit it as your own; that is plagiarism. All cases of academic dishonesty will be reported to the University Management for appropriate sanctions in accordance with the guidelines for handling students' misconduct as spelt out in the Students' Handbook.

Assignments and Group Work: Students are expected to submit assignments as scheduled. Failure to submit an assignment as at when due will earn a zero for that assignment. Only under extreme circumstances, for which a student has notified any of the instructors in advance, will late submission of assignments be permitted.

Code of Conduct in Lecture Rooms: Students should turn off their cell phones during lectures. Students are prohibited from engaging in other activities (such as texting, watching videos, etc.) during lectures. Food and drinks are not permitted as well.

READING LIST

- ¹Willis A., Trench, W. & Lee, S. (2005). *Willis's Elements of Quantity Surveying*. 10th Edition. Blackwell Publishing, Great Britain.
- ⁴Cartlidge, D. (2009). *Quantity Surveyor's Book*. 1st Edition. Elsevier Butterworth-Heinemann Publishing, Oxford.
- ²Nigerian Institute of Quantity Surveyors (2008). *The Building and Engineering Standard Methods of Measurement 3 (BESMM3)*. 3rd Edition. Graphic 59 Limited, Lagos.

Legend

- 1- Available in the University Library
- 2- Available in Departmental/School Libraries
- 3- Available on the Internet.
- 4- Available as Personal Collection
- 5- Available in local bookshops.

COURSE OUTLINE

Week	Topic	Remarks
1 & 2	Introduction to the methods of communication of data within the construction industry and their relationship to the design and construction process <ul style="list-style-type: none"> • Communication process • Instruments for communication 	Students will be taught how communication is being created, transferred, professionals involved and the instruments used for any construction project.
3	Mechanics of construction measurement	Students will be taught the principles guiding how to measure construction works and constructing a dimension/taking off sheet.
4 & 5	Introduction to the use of standard methods of measurement of construction works	At the start of the lecture, students will be taught how to use the BESMM as they will be required to bring a copy of it to class. Then, they will be requested to demonstrate how a simple item-description can be written.
6	Bill preparation process	Lecture will involve showing students the step-by-step procedure of preparing the bill of quantity.
7 & 8	Bill formats	Students will be taught the different formats of producing/preparing the bill of quantity.
		MID-SEMESTER TEST
9 & 10	Applied mensuration	Students' knowledge will be refreshed in calculating the perimeter, area, volume, etc of simple building shapes. Students will be required to visit nearby construction sites to familiarise themselves with the construction of a simple foundation.

11 - 14	Measurement of simple substructural works	<p>Students will be shown simple shaped designs (plan & section) and taught how a simple strip foundation can be measured. At the start of each lecture, students will be requested to draw out their own dimension sheets.</p> <p>For assignment purpose, students will be given designs to measure.</p>
15	REVISION	<p>This is the week preceding the final examination. At this time, evaluation will be done to assess how far the students' expectations for the course have been met.</p>