YEAR THREE

SEMESTER ONE

QUS 3101 Construction Technology III

Hours Per Week	Hours per Semester	Weighted Total Mark	Weighted Exam Mark	Weighted Continuous Assessment	Credit Units

LH	PH	TH	CH	WTM	WEM	WCM	CU
4	0	4	60	100	60	40	4

Course description

This course focuses on Functional requirements and building techniques of tall building structures

Objective(s)

1. To give students knowledge about the components of a building, construction and integration of construction members

2. To give students the pre-requisite skills in producing and interpreting drawings.

3. To help students understanding the principles of architectural detailing. **Course contents**

1. Foundation systems [20 CH]

1.1 Pad foundations

1.2 Raft foundations

1.3 Deep strip foundations

1.4 Grillage foundations

1.5 Combined foundations

1.6 Pile foundations

1.7 Special foundations

2. Structural steel and concrete [20 CH]

2.1 Trusses

2.2 Steel members; girders, stanchions etc

2.3 Insitu, Pre-stressed and pre-cast concrete construction.

3. Enclosure systems [20 CH]

3.1 Metal

3.2 Glass

3.3 Cladding and curtain walling

3.4 Ceiling and partitions

Learning outcomes.

On completion of the course, students will be able to understand and interpret various components of tall structures, be acquainted with the construction technology and detailing.

Method of delivery.

The course will be conducted through a mixture of lectures, group discussions and reading assignments. Basic lecture materials and data will be provided by the Lecturer and this will be supplemented by individual reading effort by students.

Method of assessment.

Assessment will be done through continuous coursework and final written examination. Continuous assessment will include assignments and classroom tests. A final examination will be offered at the end of each semester and will carry 60% of the total mark. Coursework will carry a total of 40% will be divided into: assignments 20%, and written tests 20%.

Reference books and materials.

1. Rangwala, S.C 1978. ***Building Construction*** 4th Edn. Charotar Book Stall. Anand Press, India

2. Barry R., 1979. ***The Construction of Buildings*** Vols 3 and 4. Crosby Lockwood Staples, London

3. Esmond R,1988. ***Understanding Buildings.*** Longman Scientific and Technical, London

4. Foster J.S. 1977. ***Structures and Fabrics*** Parts II. B.T. Batsford, London

5. Everett A., 1977. ***Finishes.*** B.T. Batsford, London

6. Chudley: 1976. ***Construction Technology*** (Vols.3 and 4 New York Longman, London.

7. Fullerton, R.L. 1979. ***Building Construction in Warm Climate.*** Vol. 1, Oxford University Press, London

10. Ching, F. 1975. ***Building Construction Illustrated.*** Van. Nostrand Reinhold, New York,

11. Mackay W.B. 19754. ***Building Construction*** (Vols. III and IV. Longman, London.