COVENANT UNIVERSITY

COURSE COMPACT

2014/2015 ACADEMIC SESSION

College: College of Science and Technology
Department: Building Technology
Programme: Building Technology
Course: DESIGN OF REINFORCED CONCRETE STRUCTURES 2
Code: BLD 412
Units: 2
Course Lecturer: Mr. Ignatius O. Omuh
Semester: Alpha Semester

Time:
Location:

BRIEF OVERVIEW OF THE COURSE

This course continues to expose the students to the concept of reinforced concrete design and the requirements and considerations in the limit state method of reinforced concrete design. The students are exposed to the basic principles of design and the design of some reinforced concrete structural elements.

COURSE OBJECTIVE

To expose students to the design of Reinforced Concrete structures using the Limit State design method according to the requirements of BS 8110.

METHOD OF LECTURE DELIVERY

There will be lectures each week and students will be given series of assignments that they are expected to work on individually and submit. After submission of assignments, the questions will be studied together in a tutorial class. Tests, and short quizzes will be used to obtain feedback from students.

COURSE OUTLINE

Week

1. BS 8110, Euro code 2 and relevant euro codes
2. Further analysis of concrete sections
3. Designing and detailing of one-way spanning slab I
4. Designing and detailing of one-way spanning slab II
5. Designing and two-way spanning slabs I
6. Designing and two-way spanning slabs II
7. Design of reinforced staircases,
8. Principles, design, and detailing of reinforced concrete beams,
9. Design of axially loaded columns I
10. Design of uniaxially loaded columns II
11. Design of reinforced concrete footings
12. Design of reinforced concrete footings I
13. Design of reinforced concrete footings II
14. Revision

STRUCTURE OF THE PROGRAMME/METHOD OF GRADING
Continuous assessment test 15 marks
Assignment 15 marks
Examinations 70 marks
Total 100 marks

GROUND RULES AND REGULATIONS

Penalties for late submission of assignments are as follows:

1. 75% attendance will be taken seriously without which the students will not be allowed to write examinations
2. The submission of assignments will be within the lifeline for submission, otherwise the students will be penalised

Students are strongly advised to ensure that assignments are submitted by the relevant deadline.

Contemporary issues/ Industry relevance

The course provides estimating skills which are currently used for construction cost management in the Nigerian construction industry.

Recommended Reading Text

1. The Design of Structures- Chanakya Arya
2. Reinforced Concrete Design; Theory and Examples- Mcginley and Choo (2nd Ed.)