CIV2203 Civil Engineering Materials

Hours per Semester				Weighted Total Mark	Weighted Exam Mark	Weighted Continuous Assessment Mark	Credit Units
LH	PH	TH	CH	WTM	WEM	WCM	CU
45	30	0	60	100	60	40	4

Course Description

This course deals with the properties, applications and analysis of important materials of construction/civil engineering. It offers coverage on how materials are made or obtained, their physical properties, their mechanical properties, how they are used in construction, how they are tested in the lab, quality control and their strength characteristics; information that is essential for material selection and elementary design. The class work is divided into modules which are subdivided into units and topics taught sequentially. The course also consists of laboratory modules for selected material tests, which provide a practical dimension to the theory acquired through class work. This course therefore forms an essential component in training towards a civil engineering degree.

Objectives

1. To comprehensively discuss examples of principle materials used in Engineering.
2. To emphasise the properties and behaviour of these materials in the construction industry.
3. To enable the student apply the materials within the general context of analysis and design of structures.
4. To enable the student choose materials that will ensure the final product will adequately fulfill the purpose for which it is intended.
5. To promote the awareness of the importance of material behaviour in both design and construction and how this affects engineering decisions.
6. To create awareness of the diverse usage of materials in Civil Engineering structures (roads, bridges, buildings, water supply systems etc)