CMG 1101 Geophysical Environment

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
3	0	3	45	100	60	40	3

Rationale/Course Description

The course presents the elements of the physical environment which is modified by the construction processes. The key elements considered include geology, ecology and climatology.

Objectives/Aims

- To enable the student understand the influence of physical environment in construction
- To provide knowledge of the development and formation of different elements in the physical environment
- To explain the need and practices for maintaining acceptable environmental standards.

Course Outline

1. Geology [15 CH]

1.1 Man's structured environment

1.2 Origin and development of earth's surface

1.3 Materials (water, stone, sand , clay, minerals)

1.4 Theory related to building construction

2. Ecology [15 CH]

2.1 Basic concepts of ecology

2.2 Factors influencing the distribution and abundance of organisms

2.3 Population control and ecological energetic

2.4 Relating concepts and theories to human population ecology

3. Climatology [15 CH] 3.1 Introduction to meteorology and climatology

3.2 Meteorological parameters (radiation, temperature, humidity, precipitation)

3.3 Synoptic climatology (modification of climate by man, air pollution, climate change)

Learning Outcomes

The course will provide an understanding of the elements of the physical environment in relation to construction processes and the challenges of challenges of sustainable environmental management in construction.

Method of Teaching/Delivery

The course will be conducted through lectures and tutorials. The course tutor will provide basic materials to be supplemented by individual reading effort of students

Assessment Method

Assessment will be done through continuous assessment including assignments and tests contributing 40%. The final exam will contribute 60%.

Reading/reference materials

1. McLean, A C; Gibble, C D (1992). ***Geology for Civil Engineers.*** Chapman and Hall. London

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