CMG 8106 Advanced Materials of Construction

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

Course Description
The course in geared at taking the student through the advanced materials of construction.

Objectives/Aim
- To enable the student understand the different advanced materials of construction and their application.

Course Outline

1. Glass [6 CH]
2. Ceramics [7 CH]
3. Intermetallics [6 CH]
4. Composites [7 CH]
5. Polymers [6 CH]
6. Alloys [7 CH]
7. Plastics and rubbers [6 CH]

Learning Outcomes
The student will be able to:
- Understand the different advanced construction materials and their use.
- Understand the advantages and disadvantages of different technologies in construction.

Method of Teaching/Delivery
The course will be conducted through lectures, tutorials and assignments. Basic lecture materials provided by the Lecturer will be supplemented by individual reading effort by students.

Assessment Method
Continuous assessment through assignments and tests, and final written examination. The final examination carry 60% of the total mark., while continuous assessment will carry a total of 40%.

Reading/ Reference Materials

- Jackson N. and Dhir, R. (2006) Civil Engineering Materials, Palgrave, London.
- Illston, J. Inwoodie, J.M. and Smith, A.A. ***Concrete. Timber and Metals.*** Pitman, London.

- Neville, A.M. (1975), ***Properties of Concrete.*** Pitman, London
- Everett, A. 1975. ***Materials. Mitchell's Building Construction*** B.T. Batsford Ltd, London and Sydney.

Schoner, W. Brunner, M.Y./Sway, A. (1987), ***Building Materials***. ***Separate Manuscripts: General Introduction, Steel, Mineral Binders, Concrete, Bricks and Blocks, Timber***, - Publications of Faculty of Engineering, University of Dar Es Salaam.