CMG7101 Construction Economics

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 estimating, economic resources, feasibility studies, cost benefit analysis; and supply and demand.

Objectives/Aims

- To enable the student understand estimation processes, inputs and outputs
- To help the student master the different ways of assessing the viability of construction projects
- To provide an understanding of supply and demand in the construction context

Course Outline

1. Estimating [10 CH]

1.1 The Process
1.2 Inputs and Outputs of Estimating process
1.3 Methods of estimating
1.4 Cash flows

2. Economic resources: identification and allocation [10 CH]

2.1 Economic resources
2.2 Reducible and irreducible factors
2.3 Priority analysis
2.4 Interest
2.5 Net Present Value, Equivalent Annual Cost, Payback Period, Profitability Index

3. Feasibility Studies [10CH]

3.1 Need for feasibility studies
3.2 Parties and processes in feasibility studies
3.3 Feasibility study reports

4 Cost benefit analysis [5CH]

4.1 Cost determination
4.2 Benefits and disbenefits
4.3 Cost benefit ratio analysis

5 Supply and demand [10 CH]

5.1 Supply analysis
5.2 Demand analysis
5.3 Using demand and supply in construction
5.4 Elasticity of demand and supply in construction

5.5 Price Mechanism and allocation of resources
5.6 The role of government in construction demand and supply

Learning Outcomes
The course will help the student to:

- Estimate for civil engineering projects
- Carry out economic assessment and choose projects
- Carry out feasibility studies and write reports
- Analyse the supply and demand 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

Shutt, R. C. (1989) Economics of the Construction Industry, 2nd ed. Longman.
Harris, F. and McCaffer, R. (2001) Modern Construction Management, 5th ed., Blackwell Science.
Brech, E. F. (1971) Construction Management in Principle and Practice, 1st ed., Longman.
Thompson, P. A. (1981) Organisation and Economics of Construction, 2nd ed., McGrawHill.
Sepulveda, J. A., Souder, W. E., and Gottried, B. S. (1984) Engineering Economics, 1st ed., McGrawHill.