# FACULTY OF ENGINEERING SCIENCE AND THE BUILT ENVIRONMENT

Unit title:	Construction Management and Law	
Unit number:	BCE/2/118	
Unit value:	1.0	
Unit co-ordinator:	Barry Symonds	
Contact time:	Lectures	39 hours
	Tutorials	13 hours
Private study time:	98 hours	
Unit pre-requisites:	None	

## SHORT DESCRIPTION

This unit provides the opportunity for students to extend their knowledge of Building and Civil Engineering contracts, programming, measurement and contract procedures to civil engineering. Students will appreciate the operational requirements of the civil engineering sector which permit fuller understanding of the need for a separate system of measurement. Estimating and contract procedure is observed relative to civil engineering and the role and duties of the Engineer are explained in a contractual and commercial environment. Contract law and tort are examined in relation to these aspects.

## AIMS

- To give the student an introduction to and understanding of the basic principles of administration and management in the construction industry.
- To give students an introduction to and understanding of the basic principles of administering and managing a construction project.

#### LEARNING OUTCOMES

The student should be able to understand and appreciate: -

- the logical significance of contract
- Building and Civil engineering Contracts
- Project and Contract administration and management
- and prepare construction sequence and programming
- and prepare Specifications, Quantities, Tendering and Estimating
- understand the importance of quality management procedures

### TRANSFERABLE SKILLS

- BECOME MORE AWARE OF THEIR RESPONSIBILTY AS AN ENGINEER
- DEVELOP THE ABILITY TOPREPARE FORMAL DOCUMENTS
- UNDERSTAND MORE FORMAL WAYS OF COMMUNICATING DESIGN DECISSIONS
- GAIN MECHANICS FOR PLANNING AND TRACKING PROGRESS
- APPLY NUMERACY IN ACCOUNTANCY PROCESSES
- DEVELOPMENT OF RESPONSIBLE ATTITUDES IN THEMSELVES AND TO THEIR PROFESSIONAL COLLEAGUES

# TEACHING AND LEARNING PATTERN

Lectures by experienced engineers with appropriate handouts. Tutorials, seminars and group role-plays intended to put contract problems into simulation exercises and encourage discussion and debate.

# **INDICATIVE CONTENT**

The Unit will address the following topics:

- Business environment, covering project and corporate management
- Principles of a simple contract
- Quantity surveying techniques
- Specifications
- Construction procurement methods
- Civil engineering contracts
- Planning techniques for construction contracts
- Law, lawyers, adjudicators, courts and procedures
- Law of contract and roles of the parties in a civil's contract
- Tender documentation
- Construction insurance
- Health and Safety
- Historical Project Failures

### ASSESSMENT METHOD

## Continuous Assessment - 100%

Written coursework during the unit consisting of elements of work covering in parts:

The Duties and Responsibilities of the Engineer The Duties and Obligations of the Contractor Conditions of Contract Detailed Construction Sequence and Programming Bills of Quantities and Specification

## **INDICATIVE SOURCES**

**Essential** 

Civil Engineering Procedure, 5<sup>5h</sup> Edition, ICE 1996 Civil Engineering Standard Method of Measurement, 3<sup>rd</sup> Edition, Thomas Telford 1991

Core

ICE Conditions of Contract, 7<sup>Th</sup> Edition. ICE 1999

#### Background

Harris F and McCaffer R, Modern Construction Management, 5<sup>th</sup> ed Blackwell 2001 Walker A, Project Management in Construction, BSP Professional 1989 Wearne SH, Civil Engineering Contracts, Telford 1989 Atkinson C, Civil Engineering Contract and Administration, 2<sup>nd</sup> ed, Stanley Thomas Ltd 1991 Marks RJ (et al), Aspects of Civil Engineering Contract Procedure, 3<sup>rd</sup> ed, Pergamon 1987 McCaffrey RG (et al), CSMM3 in Practice, Macmillan 1989 Seeley IM, Civil Engineering Quantities, Macmillan, 2001 Tweeds (ed), Taking off Quantities: Civil Engineering, E&FN Spon (Chapman Hall, 1998