Liverpool John Moores University

Title:	MULTIDISCIPLINARY PROJECT
Status:	Definitive
Code:	**5510ICBTCE** (128423)
Version Start Date:	01-08-2021
Owning School/Faculty:	Civil Engineering and Built Environment
Teaching School/Faculty:	ICBT, Colombo

Team	Leader
Alison Cotgrave	Y

Academic Level:	FHEQ5	**Credit Value:**	15	**Total Delivered Hours:**	45
Total Learning Hours:	150	**Private Study:**	105		

Delivery Options
Course typically offered: S2 and Non Std S2 (S2 for Jan)

Component	Contact Hours
Lecture	30
Workshop	15

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Portfolio	AS1	Portfolio of Model and associated material	50	
Report	AS2	Report (2500 words)	40	
Presentation	AS3	Presentation	10	

Aims

This unit provides learners with an understanding of the principles and application of project management in civil engineering. Learners will also gain an understanding of tendering and procurement techniques applied to civil engineering projects.

Learning Outcomes

After completing the module the student should be able to:

1 Practice project management and understand the relationship between project managers and clients in complex civil engineering projects.
2 Apply tendering and procurement procedures for civil engineering projects by producing construction programmes and cash flow diagrams for a medium sized construction project.
3 Produce a site layout plan and prepare Health & Safety documentation for a medium sized construction project.
4 Work professionally in a team environment and communicate effectively and professionally through written documentation and oral presentation.

Learning Outcomes of Assessments

The assessment item list is assessed via the learning outcomes listed:

Portfolio of material	2	3	
Report	1	3	4
Presentation	1	3	4

Outline Syllabus

Project management: definition, historical developments, advantages and disadvantages in practice, review of current literature, research information

Role of project manager: development of project plan, management of project, e.g. project stakeholders, project team, project risk, project schedule, project budget, any issues and conflicts that may arise. Higher quality, e.g. improving standards, achieving quality in building, getting it right first time, best practice

Education training and standards: job requirements, person profile, occupational standards, continuing professional development

Duties and responsibilities of project managers: understanding the client brief, appointing the design team, working with the production team, reports and recommendations

Contractual relationships: coordination and control, project management, responsibilities, e.g. duties, authority, accountability, fees

Client objectives: on time, within budget, high performance, quality outcome

Clients: government, private and commercial

Tender constraints: client objectives and constraints, financial, design influences

Contract documentation: bills of quantities, drawings, specifications,

conditions of contract, information provided (nature, source, validity), collection of additional data

Tendering stages: decision to tender, considerations, tender preparation, strategy and arrangements, stages in open and select tendering, procedures

Contractors invited to tender: 'select list' of contractors, factors involving placement on select list, e.g. quality of workmanship, capacity to carry out the work, ability to work to required deadlines, value for money, prior performance on similar projects

Contractual arrangements: types of contract, e.g. forms and agreements, terms and conditions, schedule of rates, lump sum, design and build, legal responsibilities

Pre-tender and Pre-contract planning including site layout planning. Method statements and sequencing studies. Health & Safety method statements and risk assessments. Production and analysis of precedence diagrams. Production of bar charts using contract programming computer software.

Short term programming and monitoring of work progress. Use of the construction programme as a control mechanism for labour, materials, plant and subcontractors.

Cashflow forecasting for construction projects. Manpower planning issues in construction.

Learning Activities

Students will be supported in their learning, to achieve the above learning outcomes, in the following ways:

By a series of lectures and tutorials and through participation within practical sessions for problem solving.

Self-managed Project Based Learning study related to the industry is the key part of the module

In-class participation and case studies are key features of this module.

A recommended resource list - indicating key reading, internet support and physical learning assistance, is provided to help enable students to undertake self-directed study.

Notes

.