CA3417: MANAGEMENT FOR CONSTRUCTION

Effective Term
Semester B 2024/25

Part I Course Overview

Course Title
Management for Construction

Subject Code
CA - Civil and Architectural Engineering
Course Number
3417

Academic Unit
Architecture and Civil Engineering (CA)

College/School
College of Engineering (EG)

Course Duration
One Semester

Credit Units
3

Level
B1, B2, B3, B4 - Bachelor's Degree

Medium of Instruction
English

Medium of Assessment
English

Prerequisites
Nil

Precursors
Nil

Equivalent Courses
Nil

Exclusive Courses
Nil

Part II Course Details

Abstract

The course aims to apply various management techniques in complicated construction projects in the area of time, cost, quality, safety, and environment for designing, planning, organizing complicated construction projects in the industry.

Course Intended Learning Outcomes (CILOs)

	CILOs	Weighting (if app.)	DEC-A1	DEC-A2	DEC-A3
1	Describe job natures to different stakeholders in construction team	20	x		
2	Explain project cost and cash flow	20		x	
3	Design an optimistic programme	20		x	
4	Describe principals to control and monitor the quality of construction projects;	20		x	
5	Explore the Construction Management in real cases	20		x	

A1: Attitude
Develop an attitude of discovery/innovation/creativity, as demonstrated by students possessing a strong sense of curiosity, asking questions actively, challenging assumptions or engaging in inquiry together with teachers.

A2: Ability
Develop the ability/skill needed to discover/innovate/create, as demonstrated by students possessing critical thinking skills to assess ideas, acquiring research skills, synthesizing knowledge across disciplines or applying academic knowledge to real-life problems.

A3: Accomplishments
Demonstrate accomplishment of discovery/innovation/creativity through producing /constructing creative works/new artefacts, effective solutions to real-life problems or new processes.

Learning and Teaching Activities (LTAs)

	LTAs	Brief Description	CILO No.	Hours/week (if applicable)
1	Lecture	Students will gain conceptual overview of construction management (including construction planning, control and programming technique, cost control and cash flow management, organisation structure, human resource management, quality control, health and safety management, environment management) in lectures.	1, 2, 3, 4, 5	

2	Project	Students will work in groups to consolidate their learnings to investigate real cases of construction management problems in construction industry	1, 2, 3, 4, 5	

Assessment Tasks / Activities (ATs)

	ATs	CILO No.	Weighting (%)	Remarks (e.g. Parameter for GenAI use)
1	Mid-term Test	2, 3, 4	25	
2	Assignment	1, 5	25	

Continuous Assessment (%)

50

Examination (%)

50

Examination Duration (Hours)

3

Additional Information for ATs

To pass a course, a student must obtain minimum marks of 30% in both coursework and examination components, and an overall mark of at least 40%.

Assessment Rubrics (AR)

Assessment Task

Mid-term Test

Criterion

CAPACITY to DISCUSS the roles, functions and responsibilities of project managers; ABILITY to USE the scientific techniques in solving the planning and control problems.

Excellent (A+, A, A-)

High

Good (B+, B, B-)

Significant

Fair (C+, C, C-)

Moderate

Marginal (D)

Basic

Failure (F)

Not even reaching marginal levels

Assessment Task

Assignment

Criterion
ABILITY to APPLY suitable techniques to plan a construction project.

Excellent (A+, A, A-)
High

Good (B+, B, B-)
Significant

Fair (C+, C, C-)
Moderate

Marginal (D)
Basic

Failure (F)
Not even reaching marginal levels

Assessment Task
Examination

Criterion
CAPACITY to RELATE and EXPLAIN the management theories and principles to construction management; DISCUSS the roles, functions and responsibilities of construction professionals; ABILITY to USE the scientific techniques in solving the planning and control problems.

Excellent (A+, A, A-)
High

Good (B+, B, B-)
Significant

Fair (C+, C, C-)
Moderate

Marginal (D)
Basic

Failure (F)
Not even reaching marginal levels

Part III Other Information

Keyword Syllabus
Organsiational structure, project team, leadership, Cost Control; Project Planning, Quality Management; Risk Management, Health and Safety Management, Environmental Management

Reading List

Compulsory Readings

	Title
1	Nil

Additional Readings

	Title
1	Fewings P. (2005) "Construction Project Management: An Integrated Approach", N.Y.: Taylor and Francis,
2	Burke R. (1990) "Project Management", 3rd edition, England: John Wiley and Sons Ltd.
3	Gould F.E., Joyce N.E. (2003) "Construction Project Management", 2nd edition, Upper Saddle River, N.J.: Prentice Hall.
4	Walker A. (1996) "Project Management in Construction", 3rd edition, Blackwell Science, England.
5	Royal Institute of British Architects (1991) "Architect's Handbook of Practice and Management", 5th edition, RIBA, London.
6	Harris, F. & McCaffer, R. (2006), 'Modern Construction Management', 6th ed, Blackwell Science. (HD9715.A2 H35)
7	Fryer, B. (1990), 'The Practice of Construction Managementt', 3rd ed, BSP Professional Books, (TA190 .F79)
8	British Institute of Facilities Management, http://www.bifm.org.uk/bifm/home
9	The Hong Kong Institute of Facilities Management , http://www.hkifm.org.hk/public_html/
10	Facilities Management Association of Australia , http://www.fma.com.au/cms/index.php