CA3410: CONSTRUCTION MANAGEMENT FOR ARCHITECTS

Effective Term
Semester A 2022/23

Part I Course Overview

Course Title
Construction Management for Architects

Subject Code
CA - Civil and Architectural Engineering
Course Number
3410

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
SE3411 Construction Management for Architects

Exclusive Courses
CA3411 Construction Management I

Part II Course Details

Abstract

This course aims to provide students with the knowledge on the general management principles and theories in the construction industry. Topics including planning and scheduling techniques, principle management, management of resources in a construction project, IT applications in the construction process.

Course Intended Learning Outcomes (CILOs)

	CILOs	Weighting (if app.)	DEC-A1	DEC-A2	DEC-A3
1	Apply scheduling, planning, resource allocation, resource leveling, and cost control in managing construction projects;			x	
2	Adopt computer package (e.g. Primavera) to substantiate the learning process of construction project.			x	
3	Explain the features of an organization and the environment in which it operates;			x	
4	Develop students' awareness of the nature of organization and managerial processes of construction project;			x	
5	Explore the roles of architects, construction managers and etc;		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.

Teaching and Learning Activities (TLAs)

	TLAs	Brief Description	CILO No.	Hours/week (if applicable)
1	Lecture	Explain the key principles, theories and tools for construction management.	1, 2, 3, 4, 5	
2	Project /Tutorial	Require the students to discuss the concepts and solve the problems in construction management individually or in a group basis in the tutorial class.	1, 2, 3, 4, 5	

Assessment Tasks / Activities (ATs)

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

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

Mid-term test

Criterion

CAPACITY to DISCUSS the roles, function and responsibilities of an Architect. ABILITY to USE the scientific techniques in solving the planning and control of 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 project management and DISCUSS the roles, functions and responsibilities of an Architect. ABILITY to USE the scientific.

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
Principles of construction management: basis of management, organization structure, managerial qualities, construction management, construction supervision. Project scheduling, planning, and control: traditional planning techniques; CPM network based planning; resource allocation and levelling; project control; computers applications for planning construction projects.

Reading List

Compulsory Readings

	Title
1	Nil

Additional Readings

	Title
1	Harris, F. & McCaffer, R., Modern Construction Management, 4th Edition, Blackwell Science.
2	Stoner, J.A.F. & Freeman, R.E., Management, 5th Edition 1992, Prentice Hall.
3	Mawdesley, M., Askew, W. and O'Reilly, M., Planning and Controlling Construction Projects, 1997, Longman.
4	Ballie, D.S. & Paulson, B.C., Professional Construction Management, McGraw Hill, 1992.
5	Callahan, M.T., Quackenbush, P.G. & Rowings, J.E., Construction Project Scheduling, McGraw Hill, 1992.
6	C.I.O.B., The Practice of Site Management - Volumes 1-3, 1980.
7	Dawson, S., The Financial Effects of New Share Issue Prices, Hong Kong Manager, December 1984.
8	Fryer, B., The Practice of Construction Management, 3rd Edition, BSP Professional Books, 1997.
9	Leung, R.K.L., Capital Practices in Hong Kong, Hong Kong Baptist College Academic Journal, 1986.
10	Murdoch, J. & Hughes, W., Construction Contracts Law and Management, 1st Edition, E & F N Spon, 1992.
11	Oxley, R & Poskitt, J., Management Techniques Applied to the Construction Industry, 5th ed, Blackwell Science, 1996.
12	Pinches, G.E., Essential of Financial Management, 2nd Edition, Harper & Row, 1987.
13	Tsui, J., Corporate Dividend Policy, Hong Kong Society of Accountants Newsletter, January 1988.
14	Upson, Alan, Financial Management for Contractors, 1987, B.S.P. Professional Books, Oxford.