

# CA3417: MANAGEMENT FOR CONSTRUCTION

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## Effective Term

Semester A 2022/23

## 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 DEC-A1 DEC-A2 DEC-A3 app.)			
1	Define job natures to different stakeholders in construction team;		x		
2	Estimate project cost and cash flow;			x	
3	Develop an optimistic programme;			x	
4	Control and montior the quality of construction projects;			x	
5	Explore the Construction Management in real cases			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	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.	1, 2, 3, 4, 5

2	Project	Assign students with specific task, such as real construction management problems in construction industry, student may submit a report with presentation of their task.	5	
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**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

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**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

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**Part III Other Information**

**Keyword Syllabus**

Organsational 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 Management', 3rd ed, BSP Professional Books, (TA190 .F79)
8	British Institute of Facilities Management, <a href="http://www.bifm.org.uk/bifm/home">http://www.bifm.org.uk/bifm/home</a>
9	The Hong Kong Institute of Facilities Management , <a href="http://www.hkifm.org.hk/public_html/">http://www.hkifm.org.hk/public_html/</a>
10	Facilities Management Association of Australia , <a href="http://www.fma.com.au/cms/index.php">http://www.fma.com.au/cms/index.php</a>