

# CA3747: BUILDING MANAGEMENT

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## Effective Term

Semester A 2022/23

## Part I Course Overview

### Course Title

Building Management

### Subject Code

CA - Civil and Architectural Engineering

### Course Number

3747

### 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

CA2745 Engineers and Society or CA1166 Professionals and Society Students must have attempted (including class attendance, coursework submission, and examination) the precursor course(s) so identified.

### Equivalent Courses

BC3747/BC3747P Building Management

### Exclusive Courses

Nil

## Part II Course Details

### Abstract

This course aims to provide students with knowledge in building engineering project management and facilities management issues related to building engineering.

### Course Intended Learning Outcomes (CILOs)

	CILOs	Weighting (if app.)	DEC-A1	DEC-A2	DEC-A3
1	discover and evaluate the managerial and technical decision making processes involved in the management of complex building engineering projects;		x		
2	apply the managerial and technical decision making to different client demands and to optimize the management of resources in the context of building management;			x	
3	apply the planning and control techniques in the management of complex building engineering projects;			x	
4	appraise and explain the principles and operations of human resources management involved in building engineering projects;		x	x	
5	compare and communicate the essential elements of facilities management maintenance management, risk management, quality management and information management.			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	Lectures	1. introduction of managerial and technical decision making processes involved in the management of complex building engineering projects; 2. introduction of different client demands and to optimize the management of resources in the context of building management; 3. apply planning and control techniques in the management of complex building engineering projects; 4. introduction of the principles and operations of human resources management involved in building engineering projects; 5. appreciate the essential elements of facilities management maintenance management, risk management, quality management and information management.	1, 2, 3, 4, 5
2	Tutorials	In class discussion of the techniques, theories and methods, and apply for managerial problems.	1, 2, 3
3	Scenario Tutorials	Case studies on the real case problems.	4, 5

**Assessment Tasks / Activities (ATs)**

ATs	CILO No.	Weighting (%)	Remarks (e.g. Parameter for GenAI use)
1	Coursework	1, 2, 3, 4, 5	30
2	Mid-term Exam	1, 2, 3, 4, 5	20

**Continuous Assessment (%)**

50

**Examination (%)**

50

**Examination Duration (Hours)**

2

**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**

Coursework

**Criterion**

ABILITY to APPLY management of complex building engineering project; management of resources in the context of building management; operations of human resources management; and facilities management, maintenance management, risk management, quality management and information management.

**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**

Mid-term Exam

**Criterion**

ABILITY to APPLY the planning and control techniques in the management of complex building engineering projects.

**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**

ABILITY to APPLY management of complex building engineering project; management of resources in the context of building management; operations of human resources management; and facilities management, maintenance management, risk management, quality management and information management.

**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**

System analysis and design, Human resources management, Leadership, Decision making, Delegation, Responsibility and Motivation, Management by objectives, Quality management, Risk management, Information management, Communication and feedback mechanisms, Planning and control, CPM, Budget control, Resources leveling and optimization, Work measurement, Work study, Incentive scheme, Facilities management, Maintenance management.

**Reading List****Compulsory Readings**

Title	
1	Nil

**Additional Readings**

Title	
1	Burke, R. 2003, Project Management - Planning & Control Techniques, 4th ed., Wiley, England. [ HD69.P75 B87 2003]
2	Fellows, R. 2002, Construction management in practice, 2nd ed., Blackwell Science, Oxford. [ HD9715.A2 C648 2002]
3	Haplin, D.W. and Woodhead, R.W. 1998, Construction Management, 2nd ed., Wiley, New York [HD9715.U52 H324 1998]
4	Harris, F. & McCaffer, R. 2001, Modern Construction Management, 5th ed., Blackwell Science, Malden. [HD9715.A2 H35 2001]
5	Hills, M. J. 2001, Building Contract Procedures in Hong Kong, Longman, Hong Kong. [KNR85.4.B84 H55 1995]
6	Langford, D., Hancock, M. R., Fellows, R. & Gale, A.W. 1995, Human Resources Management in Construction, Longman Scientific & Technical, Harlow. [HD9715.A2 H84 1995]
7	McCabe, S. 1998, Quality Improvement Techniques in Construction. Longman, Harlow. [TH438 .M425 1998]

8	Oxley, R. and Poskitt, J. 1996, Management Techniques applied to the Construction Industry, 5th ed., Blackwell Science, Oxford. [TH438 .O95 1996]
9	Pilcher, R. 1992, Principles of Construction Management, 3rd ed., McGraw-Hill Book, London. [TH438 .P47 1992]
10	Rogers, M. 2001, Engineering Project Appraisal, Blackwell, Oxford. [TA183 .R55 2001]
11	Schexnayder, C.J. and Mayo, R. E. 2004, Construction Management Fundamentals, McGraw-Hill, New York. [HD9715.A2 S363 2004]
12	Tang, S.L., Poon, S.W., Ahmed, S.M. and Wong, F.K.W. 2003, Modern Construction Project Management. HKU Press, Hong Kong. [TH438 .M56 2003]
13	<a href="http://www.pmi.org/">http://www.pmi.org/</a>