

CA2501: INDUSTRIAL TRAINING - BUILDING SERVICES ENGINEERING

Effective Term

Semester A 2022/23

Part I Course Overview

Course Title

Industrial Training - Building Services Engineering

Subject Code

CA - Civil and Architectural Engineering

Course Number

2501

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

CA2507 Industrial Training - Architectural Engineering

Exclusive Courses

CA3504 Industrial Internship

Part II Course Details

Abstract

To provide students with knowledge of principles and techniques in different engineering application technology that including air conditioning systems, electrical installation practice, fire detection and security control systems, Lighting system, Ducting and Welding Practice, Low Voltage switchboard and power monitoring, integral building system and plumbing practice and to enable them to appreciate these basic building engineering methods and fundamental industrial safety in engineering projects.

Course Intended Learning Outcomes (CILOs)

	CILOs	Weighting (if app.)	DEC-A1	DEC-A2	DEC-A3
1	identify relevant engineering theories and principles and to apply them in hands-on training exercises to determine building services system feasibility		x		
2	compare and contrast conceptual design, develop actual work sequences and methods for various electrical and mechanical installations		x		
3	undertake the design, construction, testing and commissioning of building services systems in buildings on the basis of recognize the engineering standards, regulations and practices			x	
4	apply intelligent building control technology effectively on various building services systems. Evaluate new building automation/ intelligent control schemes to achieve a safe, comfort and efficient building environment			x	
5	apply the knowledge and skills for effective trouble shooting, test and commissioning of integral building systems			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	Hands-on exercise in different workshops	Introduction and briefing sessions in workshops	1, 2, 3, 4, 5	

Assessment Tasks / Activities (ATs)

ATs		CILO No.	Weighting (%)	Remarks (e.g. Parameter for GenAI use)
1	Assignment	1, 2, 3, 4, 5	40	
2	Test	1, 2, 4, 5	30	
3	Logbook/Module Report	1, 2, 3, 4, 5	30	

Continuous Assessment (%)

100

Examination (%)

0

Additional Information for ATs

100% attendance is required.

Assessment Rubrics (AR)**Assessment Task**

Assignment

Criterion

1. ABILITY to APPLY the knowledge periodically throughout the training.

Failure (F)

Not even reaching marginal levels

Assessment Task

Test

Criterion

1. ABILITY to DESCRIBE the breadth and depth of their understanding on specific topics

Failure (F)

Not even reaching marginal levels

Assessment Task

Logbook/Module Report

Criterion

1. ABILITY to DESCRIBE the theories and practical knowledge on the topics of the training
2. ABILITY to PRESENT the concepts of different topics learned from the training

Failure (F)

Not even reaching marginal levels

Part III Other Information

Keyword Syllabus

Industrial training on building services related trades at a training centre in Construction Industry Council, City University of Hong Kong, Hong Kong Polytechnic University, Vocational Training Council, or equivalent.

Reading List

Compulsory Readings

Title	
1	Nil

Additional Readings

Title	
1	Chadderton D.V. (2007) Building services engineering, Taylor & Francis, London.
2	Parlour R.P. (1994) Building services : engineering for architects, Integral Publishing.