

# CA3314: SURVEYING STUDIO

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## Effective Term

Semester A 2025/26

## Part I Course Overview

### Course Title

Surveying Studio

### Subject Code

CA - Civil and Architectural Engineering

### Course Number

3314

### 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

BC3314/BC3314F Surveying Studio I

### Exclusive Courses

Nil

## Part II Course Details

### Abstract

The course aims to provide students with knowledge about preparing tender documents and adopting digital technologies in BQ production.

### Course Intended Learning Outcomes (CILOs)

CILOs	Weighting (if app.)	DEC-A1	DEC-A2	DEC-A3
1	apply measurement rules for taking off quantities of real-life projects			x
2	describe the production process of Bills of Quantities (BQ)		x	
3	discuss the types of project information used for tender documents	x		
4	demonstrate communication skills with other construction professionals to seek solutions	x		
5	identify digital technologies for BQ production		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	Lectures	Students will engage in formal lectures to gain knowledge for achieving the CILOs	1, 2, 3, 4, 5
2	Tutorials	Students will engage in tutorial activities to extend their learning by involving in class discussions and exercises	1, 2, 3, 4, 5
3	Projects	Students will participate in assignment projects to produce tender documents by using digital technologies	1, 2, 3, 4, 5

### Assessment Tasks / Activities (ATs)

	ATs	CILO No.	Weighting (%)	Remarks ("-" for nil entry)	Allow Use of GenAI?
1	Assignment	1, 2, 3, 4, 5	60		Yes
2	Mid-term test	1, 2, 3, 4, 5	20		No
3	End-term test	1, 2, 3, 4, 5	20		No

**Continuous Assessment (%)**

100

**Examination (%)**

0

**Minimum Continuous Assessment Passing Requirement (%)**

40

**Minimum Examination Passing Requirement (%)**

0

**Assessment Rubrics (AR)****Assessment Task**

Assignment

**Criterion**

1. Capacity to produce BQ by using digital technologies
2. Ability to prepare tender documents by managing the project information and formulating a logical production process based on students' own exploration from the project

**Excellent (A+, A, A-)**

Exceptional

**Good (B+, B, B-)**

High

**Fair (C+, C, C-)**

Moderate

**Marginal (D)**

Basic

**Failure (F)**

Not reaching marginal level

**Assessment Task**

Mid-term test

**Criterion**

1. Capacity to explore building design for acquiring project information
2. Ability to use measurement techniques for taking-off quantities

**Excellent (A+, A, A-)**

Exceptional

**Good (B+, B, B-)**

High

**Fair (C+, C, C-)**

Moderate

**Marginal (D)**

Basic

**Failure (F)**

Not reaching marginal level

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**Assessment Task**

End-term test

**Criterion**

1. Capacity to present tender documents with a demonstration of the know-how of tender production
2. Ability to respond to technical queries in a professional manner

**Excellent (A+, A, A-)**

Exceptional

**Good (B+, B, B-)**

High

**Fair (C+, C, C-)**

Moderate

**Marginal (D)**

Basic

**Failure (F)**

Not reaching marginal level

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## Part III Other Information

**Keyword Syllabus**

BQ production; Tender documents; Interdisciplinary communication; Digital technologies; Three-dimensional building models

**Reading List**

**Compulsory Readings**

	Title
1	Keung, C.W.C., Yeung, K.L.D., Cheung, S.O. 2022, Quantity Surveying Practice: the nuts and bolts, Oxon, Routledge. [TH435.K48 2022]
2	Architectural Services Department, Government of HKSAR, Model Bills of Quantities, Government Printer, Hong Kong. [Call no. is unavailable but the book can be downloaded from: <a href="https://www.archsd.gov.hk/en/reports/technical-documents.html">https://www.archsd.gov.hk/en/reports/technical-documents.html</a> ]

3	Hong Kong Institute of Surveyors 2018, Hong Kong Standard Method of Measurement of Building Works, 4th Edition Revised 2018, Hong Kong. [TH425.H853 2018]
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### Additional Readings

Title	
1	Picken, D.H. and Drew, D.S. 1996, Building Measurement in Hong Kong: Worked Examples, Hong Kong Polytechnic, Hong Kong. [TH435.P52 1991]
2	Seeley, I.H. 1999, Building Quantities Explained, MacMillan, Hampshire. [TH435.S43 1999]
3	Wills, C.J. 1998, Willis's Elements of Quantity Surveying, 9th edition, Blackwell Science, Oxford. [TH435.W54 1998]
4	Ashworth, A. 2007, Willis's Practice and Procedure for the Quantity Surveyor, 12th edition, Blackwell Science, Oxford. [TH435.W6853 2007]
5	Bowyer, J. 1985, Practical Specification Writing: for Architects and Surveyors, 2nd edition, Hutchison, London. [TH425.B68 1985]
6	Goodacre, P.E. 1982, Worked Examples in Quantity Surveying Measurement, E. & F. N. Spon, London. [TH437.G64 1982]
7	The Aqua Group 1986, Pre-contract Practice for Architects and Quantity Surveyors, 7th edition, Collins, London. [TH425.P73 1986]
8	Willis, C.J. 1994, Practice and Procedure for the Quantity Surveying, 10th edition, Blackwell Scientific Pub., Oxford. [TH425.W55 1994]