City University of Hong Kong

Information on a Course

offered by Department of Architecture and Civil Engineering
with effect from Semester A in 2014 / 2015

Part I

Course Title:	Intelligent Building Assessment
Course Code:	CA8622D
Course Duration:	1 Semester (Some courses offered in Summer Term may start a few weeks earlier than the normal University schedule. Please check the teaching schedules with CLs before registering for the courses.)
Credit Units:	3
Level:	D8
Medium of Instruction:	English
Prerequisites:	Nil
Precursor:	Nil
Equivalent Courses:	BC8622D Intelligent Building Assessment
Exclusive Courses:	Nil

Part II

1. Course Aims:

To summarize existing definitions of intelligent buildings around the world, in particular, U.S.A., Europe, China and Japan. To thoroughly understand the official definition of intelligent buildings of Asian Institute of Intelligent Buildings (AIIB). To study in depth the comprehensive and quantitative method developed by AIIB, the Intelligent Building Index.

2. Course Intended Learning Outcomes (CILOs):

Upon successful completion of this course, students should be able to:

No.	CILOs	Weighting (if applicable)
1.	apply the assessment methods adopted by The Intelligent Building Index Manual of AIIB;	---
2.	enumerate suggestions to existing buildings for enhancing the intelligence;	---
3.	create assessment exercise inside a modern intelligent building;	---
4.	criticize individual elements inside the IBI Manual and suggest improvements.	---

3. Teaching and Learning Activities (TLAs):

Semester Hours: 3 hours per week
Lecture/Tutorial/Laboratory Mix: Lecture (2); Tutorial (1); Laboratory (0)

CILO No.	TLAs	Total Hours (if applicable)
CILO 1	• Lectures and tutorials on the mostly updated IBI Manual • A case study (group work) to investigate the intelligence of the existing buildings in Hong Kong	21
CILO 2	• Lectures and tutorials • A small-scaled assignment to suggest improvements to the campus in the university	3
CILO 3	• Lectures and tutorials • Assignment to estimate the IBI of a real building	12
CILO 4	• A comment sheet to suggest improvement to IBI 4.0 with discussions in class	3

4. Assessment Tasks/Activities:

Coursework: 100%
Examination: 0%

Students must attain the minimum pass grade for each and every assignment in order to pass the course as a whole.

CILO No.	Type of assessment tasks/activities	Weighting (if applicable)	Remarks
CILO 1	• Quiz in class	---	• Nil
CILO 2	• Small scaled assignment to suggest improvements on a building within CityU campus	---	• Nil
CILO 3	• Assignment on carrying out a comprehensive IB assessment with a real building in Hong Kong	---	• Nil
CILO 4	• A debate among several groups in the class together with oral presentation	---	• Nil

5. Grading of Student Achievement:

Grading Pattern:

Standard

Part III

Keyword Syllabus:

Existing definitions of intelligent buildings; definition of intelligent buildings developed by AIIB; existing assessment methods and their background philosophy including LEED, HKBEAM etc.; Intelligent Building Index of AIIB, theory, mathematics, methodology, analysis and implementation; case studies.

Recommended Reading:

- **Texts:**
  1. Harrison A., Loe E. and Read J. (ed.) (1998) Intelligent Buildings in South East Asia, E&RN Spon, London.
  2. Centre of Environmental Technology Ltd. (1996) Hong Kong Building Environmental Assessment Method: An Environmental Assessment for New Air-conditioned office Premises, Version 1/96, Hong Kong.
  3. Centre of Environmental Technology Ltd. (1996) Hong Kong Building Environmental Assessment Method: An Environmental Assessment for Existing Air-conditioned office Premises, Version 2/96, Hong Kong.
  4. Centre of Environmental Technology Ltd. (1996) Hong Kong Building Environmental Assessment Method: An Environmental Assessment for New Residential Buildings, Version 3/99, Hong Kong.
  5. U.S. Green Building Council (2004) Leadership in Energy and Environmental Design Green Building Rating System, Version 2.2, US.
  6. Asian Institute of Intelligent Buildings (2009) The Intelligent Building Index Manual, Version 4.0, Hong Kong.
- **Online Resources:**
  1. http://www.aiib.net
  2. http://www.eibg.net
  3. http://www.ciba.org