Form 2B

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:	Automation in Construction
Course Code:	CA5108
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:	P5
Medium of Instruction:	English
Prerequisites:	Nil
Precursor:	Nil
Equivalent Courses:	BC5108 Automation in Construction
Exclusive Courses:	Nil

Part II

Course Aims:

The application of computers and Information Technology is vital to all industries, no need to mention the construction industry. This course aims at focusing on the nature and scope of automation in the construction industry. Upon completing this course, students shall be able to describe, analyse and evaluate information/views/opinions related to system analysis, system design, data analysis, application software packages, feasibility studies, management information systems, and communication networking in a construction context. Students will be equipped with the most up-dated and advanced knowledge in Information Technology of application to the construction industry.

Course Intended Learning Outcomes (CILOs):

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

No.	CILOs	Weighting (if applicable)
1.	appraise and assess the essential principles of IT management;	---
2.	identify the latest development of IT applications in construction and evaluate their contribution to the construction industry;	---
3.	apply the principles of systems analysis and design;	---
4.	perform data analysis.	---

Teaching and Learning Activities (TLAs):

(Indicative of likely activities and tasks designed to facilitate students' achievement of the CILOs. Final details will be provided to students in their first week of attendance in this course)

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	• Lecture and Presentation: appraise the essential principles of IT management;	12
CILO 2	• Lecture and Workshop: identify the latest development of IT applications in construction and evaluate their contribution to the construction industry;	12
CILO 3	• Lecture and Workshop: apply the principles of systems analysis and design;	12
CILO 4	• Lecture and Workshop: perform data analysis.	3

Assessment Tasks/Activities:

(Indicative of likely activities and tasks designed to assess how well the students achieve the CILOs. Final details will be provided to students in their first week of attendance in this course)

Coursework: 50%

Examination: 50% (Examination duration = 2 hours)

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%.

CILO No.	Type of assessment tasks/activities	Weighting (if applicable)	Remarks
CILO 1	• Examination : Students are required to demonstrate their capability to either critically review given topics or give advice on scenario case(s) • Assignment: 1 group project plus 1 individual written paper (either in CILO 1, CILO 2 or CILO 3)	---	• This module adopts Discovery-enriched Curriculum and thus assessment tasks/activities shall be geared towards the same.
CILO 2	• Examination: Ditto • Assignment: Ditto	---	• Ditto
CILO 3	• Examination: Ditto • Assignment: Ditto	---	• Ditto
CILO 4	• Examination: Ditto • Assignment: Ditto	---	• Ditto

Grading of Student Achievement:

Grading Pattern:

Standard

Refer to Grading of Courses in the Academic Regulations for Taught Postgraduate Degrees.

Part III

Keyword Syllabus:

Development of IT applications in construction; Computers and computing, Assessing systems performance, Software and hardware requirements; Data processing; Management Information systems. Application of theories and concepts associated with computer-aided design systems and multi-media systems; Software Applications: P3, Cyclone.

Recommended Reading:

- **Texts:**
  1. Laudon, Kenneth C. & Laudon, Jane P., 2002, Management Information Systems: Managing the Digital Firm, 7th edition, Upper Saddle River, N.J.: Prentice Hall
  2. Pressman, Roger S., 1992, Software Engineering: A Practitioner's Approach, 3rd edition, New York: McGraw-Hill
  3. Pressman, Roger S., 1993, A Manager's Guide to Software Engineering, New York: McGraw-Hill
  4. Ross, Jeanne W., Weill, Peter, and Robertson, David C., 2006, Enterprise Architecture as Strategy: Creating a Foundation for Business Execution, Boston, Mass.: Harvard Business School Press
  5. Tanenbaum, Andrew S., 1999, Structured Computer Organisation, 4th edition, Upper Saddle River, N.J.: Prentice Hall
- **Online Resources:**
  1. Weill, P. & Broadbent M., 1998, Leveraging the New Infrastructure [electronic resource]: How Market Leaders Capitalize on Information Technology, Boston, Mass.: Harvard Business School Press