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:	Geographic Data Management and Planning Analysis
Course Code:	CA6241
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:	P6
Medium of Instruction:	English
Prerequisites:	Nil
Precursor:	Nil
Equivalent Courses:	Nil
Exclusive Courses:	Nil

Part II

Course Aims:

To understand the Geographic Information Science principles that underlie the development of Geographic Information Systems (GIS) software and its intelligent use; to demonstrate how geographic information systems be applied to tackle problems encountered in geospatial, environmental and land use planning applications; to understand techniques, data sources, and skills for analyzing regions as economic, social, and spatial systems; to introduce systems modeling, benefit-cost analysis, budgetary analysis, decision analysis, and forecasting techniques for analyzing situations that require a planning response.

Course Intended Learning Outcomes (CILOs):

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

No.	CILOs	Weighting (if applicable)
1.	Discover the Geographic Information Science for land use planning urban demand and asset management etc;	---
2.	Apply methods for analyzing situations that require a planning response;	---
3.	Discover the techniques for analyzing cities and regions as economic, social, and spatial systems;	---
4.	Explore the applications and potentials of GIS in real contexts.	---

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	• Lectures and tutorials • Case studies to appreciate the use of Geographic Information Science for land use planning	12
CILO 2	• Lectures and tutorials • Case studies: analytical study for planning response	9
CILO 3	• Lectures and tutorials • Case studies: application of various quantitative techniques for analyzing cities and regions as economic, social, and spatial systems	12
CILO 4	• Case studies: application of GIS for specific cases and practices	6

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: 100%

Examination: 0%

CILO No.	Type of assessment tasks/activities	Weighting (if applicable)	Remarks
CILO 1	• Course work (100%): Mid-term Quiz (30%) and project/ assignment (70%)	---	• Nil
CILO 2	• Course work (100%): Mid-term Quiz (30%) and project/ assignment (70%)	---	• Nil
CILO 3	• Course work (100%): Mid-term Quiz (30%) and project/ assignment (70%)	---	• Nil
CILO 4	• Course work (100%): Mid-term Quiz (30%) and project/ assignment (70%)	---	• Nil

Grading of Student Achievement:

Grading Pattern:

Standard

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

Part III

Keyword Syllabus:

Geographic Information Science principles that underlie the development of Geographic Information Systems (GIS) software and its intelligent use; application of geographic information systems for geospatial, environmental and land use planning applications; techniques, data sources, and skills for analyzing regions as economic, social, and spatial systems; systems modeling, benefit-cost analysis, budgetary analysis, decision analysis, and forecasting techniques for analyzing situations that require a planning response

Recommended Reading:

- **Texts:**
    1. Socio-economic applications of geographic information science / editors David Kidner, Gary Higgs and Sean White. London ; New York : Taylor & Francis, 2003, c2002.
    2. Foundations of geographic information science / edited by Matt Duckham, Michael F. Goodchild and Michael F. Worboys. London ; New York : Taylor & Francis, 2003.
    3. GIS, spatial analysis, and modeling / David J. Maguire, Michael Batty, and Michael F. Goodchild, editors. Redlands, Calif. : ESRI Press, 2005.
    4. Planning support systems in practice / Stan Geertman, John Stillwell, editors. Berlin ; New York : Springer, c2003.
    5. Geographic information systems for transportation : principles and applications / Harvey J. Miller, Shih-Lung Shaw. Oxford ; New York : Oxford University Press, 2001.
    6. Karen C. Hanna, R. Brian Culpepper. GIS in site design : new tools for design professionals. New York : Wiley, c1998.
- **Online Resources:**
    1. Nil
