CA5236: TRANSPORTATION AND LAND PLANNING

Effective Term
Semester B 2024/25

Part I Course Overview

Course Title
Transportation and Land Planning

Subject Code
CA - Civil and Architectural Engineering
Course Number
5236

Academic Unit
Architecture and Civil Engineering (CA)

College/School
College of Engineering (EG)

Course Duration
One Semester

Credit Units
3

Level
P5, P6 - Postgraduate Degree

Medium of Instruction
English

Medium of Assessment
English

Prerequisites
Nil

Precursors
Nil

Equivalent Courses
Nil

Exclusive Courses
Nil

Part II Course Details

Abstract

To understand the role of transportation in urban and regional development and land use planning; characteristics of urban-person transportation systems and methods of analysis and forecasting of urban-person transportation demand; transportation systems management and capital improvement programming; mass transit systems, high-speed train and its relation to regional planning.

Course Intended Learning Outcomes (CILOs)

	CILOs	Weighting (if app.)	DEC-A1	DEC-A2	DEC-A3
1	Discover the relationship between land use planning and transportation;		x		
2	Apply methods of analysis on travel demands, accessibility, economic, environment and social impacts;			x	x
3	Discover the roles of urban transit, high-speed rail, and airport systems in regional planning;		x		
4	Understand travel demand management (TDM), transit-oriented development (TOD), and sustainable infrastructure finance.		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	Introduce the classic and unconventional issues of transportation and land planning from various fields of research and professional practices	1, 2, 3, 4	
2	Tutorials	In-class discussions and small practices to figure out innovative solutions to the issues introduced in each lecture	1, 2, 3, 4	

Additional Information for LTAs

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

Assessment Tasks / Activities (ATs)

	ATs	CILO No.	Weighting (%)	Remarks (e.g. Parameter for GenAI use)
1	Mid-term test	1, 2	20	
2	Group Project and Term Paper	1, 2, 3, 4	30	

Continuous Assessment (%)

50

Examination (%)

50

Examination Duration (Hours)

2

Additional Information for ATs

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%

Assessment Rubrics (AR)

Assessment Task

Mid-term test (for students admitted before Semester A 2022/23 and in Semester A 2024/25 & thereafter)

Criterion

CAPACITY to UNDERSTAND basic theories and classic issues and ANALYZE the issues through critical thinking

Excellent

(A+, A, A-) High

Good

(B+, B, B-) Significant

Fair

(C+, C, C-) Moderate

Marginal

(D) Basic

Failure

(F) Not even reaching marginal levels

Assessment Task

Group Project and Term Paper (for students admitted before Semester A 2022/23 and in Semester A 2024/25 & thereafter)

Criterion

CREATIVITY to SOLVE classic and unconventional issues by combining various approaches in a multidisciplinary sense

Excellent

(A+, A, A-) High

Good

(B+, B, B-) Significant

Fair
(C+, C, C-) Moderate

Marginal
(D) Basic

Failure
(F) Not even reaching marginal levels

Assessment Task
Examination (for students admitted before Semester A 2022/23 and in Semester A 2024/25 & thereafter)

Criterion
CREATIVITY to SOLVE classic and unconventional issues by combining various approaches in a multidisciplinary sense

Excellent
(A+, A, A-) High

Good
(B+, B, B-) Significant

Fair
(C+, C, C-) Moderate

Marginal
(D) Basic

Failure
(F) Not even reaching marginal levels

Assessment Task
Mid-term test (for students admitted from Semester A 2022/23 to Summer Term 2024)

Criterion
CAPACITY to UNDERSTAND basic theories and classic issues and ANALYZE the issues through critical thinking

Excellent
(A+, A, A-) High

Good
(B+, B) Significant

Marginal
(B-, C+, C) Basic

Failure
(F) Not even reaching marginal levels

Assessment Task
Group Project and Term Paper (for students admitted from Semester A 2022/23 to Summer Term 2024)

Criterion
CREATIVITY to SOLVE classic and unconventional issues by combining various approaches in a multidisciplinary sense

Excellent
(A+, A, A-) High

Good
(B+, B) Significant

Marginal
(B-, C+, C) Basic

Failure
(F) Not even reaching marginal levels

Assessment Task
Examination (for students admitted from Semester A 2022/23 to Summer Term 2024)

Criterion
CREATIVITY to SOLVE classic and unconventional issues by combining various approaches in a multidisciplinary sense

Excellent
(A+, A, A-) High

Good
(B+, B) Significant

Marginal
(B-, C+, C) Basic

Failure
(F) Not even reaching marginal levels

Part III Other Information

Keyword Syllabus
Land use planning; role of transportation in urban development and planning; methods of analysis on passenger travel demands and spatial impacts of transportation projects and programs; transportation capital improvement, system management and finance; urban rail transit, high-speed rail, airport and bus rapid transit in city and regional planning.

Reading List

Compulsory Readings

	Title
1	Nil

Additional Readings

	Title
1	Banister, David, and Joseph Berechman. Transport investment and economic development. London: UCL Press, 2000.

2	Cervero, Robert. The transit metropolis#: a global inquiry. Washington, D.C.: Island Press, 1998.
3	Rodrigue, Jean-Paul, Claude Comtois, and Brian Slack. The geography of transport systems. London; New York: Routledge, 2009.
4	Dimitriou, Harry T., and Alison Cook, eds. Land-use/transport Planning in Hong Kong: The End of an Era: a Review of Principles and Practices. Aldershot, Hants, England#; Brookfield, USA: Ashgate, 1998.