City University of Hong Kong
Course Syllabus

offered by Department of Systems Engineering
with effect from Semester A 2023 / 24

Part I Course Overview

Course Title:	Transportation and Logistics Management
Course Code:	ADSE6111
Course Duration:	One Semester
Credit Units:	3
Level:	P6
Medium of Instruction:	English
Medium of Assessment:	English
Prerequisites: *(Course Code and Title)*	Nil
Precursors: *(Course Code and Title)*	Nil
Equivalent Courses: *(Course Code and Title)*	Nil
Exclusive Courses: *(Course Code and Title)*	Nil

Part II Course Details

1. Abstract

This course aims to introduce the design and operations of transportation and logistics systems, and their significance for smart cities and industry. Emphasis will be placed on systems engineering approaches including use of modelling, data and decision analytics. Students will also learn about how effective transportation and logistics operations could support economy, industrial and enterprise management. This course showcases the roles of systems engineers in today's information era, and the importance of information driven and innovative thinking. Students' learning in this course will further be supported by real world cases presented in class.

2. Course Intended Learning Outcomes (CILOs)

(CILOs state what the student is expected to be able to do at the end of the course according to a given standard of performance.)

No.	CILOs	Weighting (if applicable)	Discovery-enriched curriculum related learning outcomes (please tick where appropriate)		
			A1	*A2*	*A3*
1.	Elaborate on the implications of technologies on modern transportation and logistics systems	30%	✓	✓	
2.	Apply skills of systems modelling and analytics in transportation and logistics	30%		✓	✓
3.	Discuss societal issues related to transportation and logistics operations	20 %	✓		
4.	Develop effective communication skills in the context of transportation and logistics management	20 %		✓	✓
		100%			

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 self-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.

3. Teaching and Learning Activities (TLAs)

(TLAs designed to facilitate students' achievement of the CILOs.)

TLA	Brief Description	CILO No.				Hours/week (if applicable)
		1	2	3	4	
Large class activity	Weekly lectures with group discussion	✓		✓	✓	2 hrs/week
Tutorials	Weekly (computer) sessions, discussion of cases, and student presentation.	✓	✓		✓	1 hr /week
Out-of-classroom activity	Complementary out-of-class activities (such as company visits) will be organized			✓		

4. Assessment Tasks/Activities (ATs)

(ATs are designed to assess how well the students achieve the CILOs.)

Assessment Tasks/Activities	CILO No.				Weighting*	Remarks
	1	2	3	4		
Continuous Assessment: 50 %						
Mid-term test		✓			25%	
Group project	✓		✓	✓	25%	
Examination: 50 % (duration: 2 hrs , if applicable)						
					100%	

For a student to pass the course, at least 30% of the maximum mark for the examination should be obtained.

5. Assessment Rubrics

(Grading of student achievements is based on student performance in assessment tasks/activities with the following rubrics.)

Applicable to students admitted in Semester A 2022/23 and thereafter

Assessment Task	Criterion	Excellent (A+, A, A-)	Good (B+, B)	Marginal (B-, C+, C)	Failure (F)
1. Mid-term test	Ability to understand the taught concepts and methodology and procedures in realistic and practical situations	Excellent understanding of subject matter	Good understanding of subject matter	Marginal familiarity with the subject matter	Little familiarity with the subject matter
2. Group project	Ability to understand the taught concepts and methodology, and apply it to practical situations; ability to contribute as a team and present work clearly	Excellent understanding and presentation of subject matter	Good understanding and presentation of subject matter	Marginal familiarity with the subject matter	Little familiarity with the subject matter
3. Final exam	Ability to understand the taught concepts and methodology and procedures in realistic and practical situations	Excellent understanding of subject matter	Good understanding of subject matter	Marginal familiarity with the subject matter	Little familiarity with the subject matter

Applicable to students admitted before Semester A 2022/23

Assessment Task	Criterion	Excellent (A+, A, A-)	Good (B+, B, B-)	Fair (C+, C, C-)	Marginal (D)	Failure (F)
1. Mid-term test	Ability to understand the taught concepts and methodology and procedures in realistic and practical situations	Excellent understanding of subject matter	Good understanding of subject matter	Fair understanding of subject matter	Marginal familiarity with the subject matter	Little familiarity with the subject matter
2. Group project	Ability to understand the taught concepts and methodology, and apply it to practical situations; ability to contribute as a team and present work clearly	Excellent understanding and presentation of subject matter	Good understanding and presentation of subject matter	Fair understanding and presentation of subject matter	Marginal familiarity with the subject matter	Little familiarity with the subject matter
3. Final exam	Ability to understand the taught concepts and methodology and procedures in realistic and practical situations	Excellent understanding of subject matter	Good understanding of subject matter	Fair understanding of subject matter	Marginal familiarity with the subject matter	Little familiarity with the subject matter

Part III Other Information (more details can be provided separately in the teaching plan)

1. Keyword Syllabus

(An indication of the key topics of the course.)

Topics include network modelling, intelligent transportation systems, logistics operations, distribution planning, vehicle routing, crew scheduling, and fleet management.

2. Reading List

2.1 Compulsory Readings

(Compulsory readings can include books, book chapters, or journal/magazine articles. There are also collections of e-books, e-journals available from the CityU Library.)

1.	Lecture notes and materials to be distributed on Canvas

2.2 Additional Readings

(Additional references for students to learn to expand their knowledge about the subject.)

1.	Snyder, L, and Shen, Z. (2019) Fundamentals of Supply Chain Theory. Wiley, NJ.
2.	Chow, J. (2018) Informed Urban Transport Systems: Classic and Emerging Mobility Methods toward Smart Cities. Elsevier, UK.
3.	Daganzo, C. (2005) Logistics Systems Analysis, Springer Berlin, Heidelberg.