

Subject Description Form

Subject Code	CSE1BN01W
Subject Title	Transport and Society
Credit Value	3
Level	1
Pre-requisite/ Co-requisite/ Exclusion	CEE students are allowed to take CSE1BN01W.
Objectives	This course aims to familiarize students with the major and current issues affecting transportation in local and global contexts. The significance of transport to social and economic development is analyzed with particular emphasis on the concept of sustainability. Students will acquire knowledge of different forms of transportation and be able to discuss and analyze their significance to society in various aspects.
Intended Learning Outcomes	Upon completion of the subject, students will be able to: (a) Identify the role and characteristics of transportation systems (b) Describe the role of transportation in social and economic development, and its environmental impacts (c) Appraise transportation challenges in Hong Kong and overseas, and ways in addressing these issues (d) Describe the contemporary trends in transportation development, such as smart city / smart transportation
Subject Synopsis/ Indicative Syllabus	1. Overview – What is transportation, nature of transport demand, the role of transportation in society 2. Evolution of transportation – Development of transport modes. Transport and spatial organization in global, regional, and local scale 3. Transportation modes and travel patterns – characteristics of transportation systems and modes for: (i) passenger transport: urban, regional, long-distance; and (ii) freight transport. Passenger and freight travel patterns. Advanced technology and future developments. 4. Transportation, Economy and Society – Transport and economy. The full cost of transportation. Social impacts of transportation – health, safety, and equity issues 5. Environmental impacts of transportation – Fuel consumption, emission, noise, urban sprawl, ecology

	6. Sustainable transport 6.1. Introduction – Mobility needs and costs, automobile dependence, unsustainable travel pattern. Business as usual versus sustainable transport 6.2. Spectrum of Sustainable Transport solutions – Options for sustainable mobility: avoid, shift, improve. Global and local policies, personal actions. Barriers to implementation. Sustainable transport in developing countries 6.3. Technological solutions – Advances in fuel, vehicle technology (emission and energy efficiency), information and communication technology (ICT) in transport, smart transportation 6.4. Policy & Planning solutions – Travel demand management, land-use policy, smart city 6.5. Fiscal measures – congestion pricing, fuel tax, carbon tax, tradable permits 6.6. Transport policy evaluation and planning – conventional economic evaluation approach, hidden costs. Public policy planning process, public participation. New planning paradigm.
Teaching/Learning Methodology	This subject is delivered in the flipped classroom approach which consist of: • Weekly self-study video lectures – students are expected to gain fundamental understanding of the subject contents by completing the video lectures and the accompanying concept-check exercises before the tutorial sessions • Interactive tutorials – students are expected to expand and deepen their understanding by engaging in interactive activities, including but not limited to group discussions, mini-research, presentation, and case studies, during the tutorial sessions. These activities are going to be conducted in small groups to facilitate peer learning, under the guidance of the subject lecturers. Each student will write a term paper upon transport development and sustainability issue to demonstrate their overall understanding of the subject contents and ability to extend their knowledge to discuss more recent issues. EW/ER requirements To enable students to meet the EW requirement, students can refer to an online lecture series provided by ELC. The series aims at equipping students with writing skills to enable them to write more effectively in English. Students are also required to submit two drafts of the term paper to staff of ELC in order to gain feedback regarding their writing. The submissions will allow ELC staff to assess the progress made by students in the writing process and the quality of their work.

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Student Study Effort Expected	Class contact:	
	▪ Video lectures / Tutorials	39 Hrs.
	Other student study effort:	
	▪ Completing required reading	26 Hrs.
	▪ Revision	26 Hrs.
	▪ Writing term paper	26 Hrs.
	Total student study effort	117 Hrs.
Reading List and References	<i>Textbook: [ER Requirement]</i> Rodrigue, J.-P. (2024). <i>The Geography of Transport Systems</i> (6th ed.). Routledge. https://doi.org/10.4324/9781003343196 Remark: around 200 pages of assigned reading from this textbook will be used to fulfil the ER <i>Major references:</i> Schiller, P., Brunn, E., & Kenworthy, J. (2010). <i>An introduction to Sustainable Transportation</i>. London, UK: Earthscan. Banister, D. (2005). <i>Unsustainable Transport</i>. Oxfordshire: Routledge. Hoyle, B., & Knowles, R. (Eds.). (1998). <i>Modern Transport Geography</i> (Second, revised ed.). West Sussex, England: John Wiley & Sons Ltd. <i>Other references:</i> Cahill, M. (2010). <i>Transport, Environment and Society</i>. Berkshire: Open University Press, McGraw-Hill Education. Khisty, J. C., & Lall, K. B. (2002). <i>Transportation Engineering: An Introduction</i> (Third ed.). New Jersey: Prentice Hall. Vuchic, V. (2005). <i>Urban Transit: operations, planning, and economics</i>. New Jersey: John Wiley & Sons. Vuchic, V. (2006). <i>Urban transit systems and technology</i>. New Jersey: John Wiley & Sons. International Transport Forum. (2011). <i>Transport for Society - Highlights. 2011 Annual Summit</i>. Leipzig, Germany: OECD Publishing. Proceedings of the Motor Vehicle Emissions Control Workshop (MoVE)	