The Hong Kong Polytechnic University

Subject Description Form

Subject Code	LGT3029
Subject Title	Shipping and Transport Logistics Operations
Credit Value	3
Level	3
Normal Duration	1-semester
Pre-requisite / Co-requisite/ Exclusion	Nil
Objectives	This is a subject to develop necessary skills and knowledge for analyzing simple shipping and transport logistics operations, and to provide a foundation for advanced level subjects in the programme.
Intended Learning Outcomes	Upon completion of the subject, students will be able to: a. Evaluate the suitability of different types of ships for specific cargo transportation requirements, by applying basic concepts of ship design and classification. b. Appraise how maritime geography (including common sea routes, navigation channels and geographic constraints) affects shipping operations. c. Be familiar with current developments in the shipping industry to a level that is adequate for continued self-enhancement of knowledge of the subject. d. Be familiar with ships, ports and maritime geography to a level that provides adequate foundation for advanced level subjects in shipping and logistics.
Subject Synopsis/ Indicative Syllabus	**Basic Ship Design and Layout** Elementary ship design, construction and layout. An overview of different ship types (Bulk / Container carriers, tankers, specialist ships, passenger vessels). Propulsion systems, fuels. Tonnage measurement of ships. **Ship Stability and Safety** Ship stability and use of stability information. Load-line zones. Safety: navigational safety, fire safety, cargo safety, flooding, water tight compartments, safety systems. **Vessel Operations** Elementary navigation, navigation aids. Berthing, anchoring and mooring arrangements. Rules of the Road. Watch- keeping requirements, ship's crew composition and functions. Time zones and time differences, local time, standard time, UTC and International Date Line.

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Cargo types

Characteristics of primary cargoes: container / bulk / hazardous cargoes, dangerous goods, deck cargoes, specialized cargoes.

Ports and operations

Ports and terminals, terminal design and equipment characteristics, harbor configurations, pilotage, port controls, tugs, water/fuel/refuse barges, bunkers, ship handling.

Cargo operations

Types of cargoes, cargo compartments, hatch covers, cargo planning, stowage, handling and preparation, measurement, shipboard and dock side cargo handling systems, venting and ballast systems.

Maritime Geography

Sea routes, navigable canals, waterways and geographic constraints. Draft and maneuverability limitations.

Voyage Planning

Passage planning, route selection, transit time, turn around, economical speed, operational speed.

Organization and Structure of Shipping

Role of shipping registers, classification societies and various international maritime and trade organizations.

Different types of shipping companies including their structures and management. Coastal and foreign trade.

Maritime conventions and rules. Customs, Quarantine.

Introduction to selected maritime conventions (STCW, MARPOL, SOLAS, SAR and COLREGs. Maritime Zones.

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<tr><td>Teaching/Learning Methodology</td><td>

Lectures explain key concepts with appropriate examples.

Tutorials give students an opportunity to enhance their understanding of concepts taught in lectures. Tutorials are highly interactive and include discussions of current / past events, case studies and may include student presentations.

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<tr><td>Assessment Methods in Alignment with Intended Learning Outcomes</td><td>

<table>
<tr><td rowspan="2">Specific assessment methods/tasks</td><td rowspan="2">% weighting</td><td colspan="6">Intended subject learning outcomes to be assessed (Please tick as appropriate)</td></tr>
<tr><td>a</td><td>b</td><td>c</td><td>d</td><td></td><td></td></tr>
<tr><td>Coursework</td><td>50%</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td></td><td></td></tr>
<tr><td>Examination</td><td>50%</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td></td><td></td></tr>
<tr><td>Total</td><td>100 %</td><td colspan="6"></td></tr>
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Explanation of the appropriateness of the assessment methods in assessing the intended learning outcomes:

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	The coursework includes - Group Project 40%; Participation in class discussions/attendance 10%. Students would be given regular feedback on their performance, by email or as comments on assignments submitted. Group project is useful for assessing students' teamwork and communication skills within a group, in addition to facilitating them to apply theoretical knowledge into practice. Examination is to test students' basic theoretical knowledge and abilities to solve problems.	
Student Study Effort Expected	Class contact:	
	▪ Lectures	26 Hrs.
	▪ Tutorials	13 Hrs.
	Other student study effort:	
	▪ Self study	31 Hrs.
	▪ Group project	60 Hrs.
	Total student study effort	130 Hrs.
Reading List and References	**<u>Compulsory</u>** Branch, Alan Edward & Robarts, Michael. (2014). *Branch's Elements of Shipping (9th Edition)*. Routledge, New York (PolyU library call no: HE 571.B67 2014eb. Also available as eBook.) Alderton, Patrick M. (2011*). Reeds Sea Transport: Operation and Economics (6th edition).* Adlard Coles Nautical, London. Song, D.-P. (2021). Container Logistics and Maritime Transport (1st Edition). Abingdon, Oxon; Routledge. **<u>Supplementary</u>** Lun, Lai & Cheng. (2010). *Shipping and Logistics Management.* Springer; London, ISBN:978-1-84882-996-1, e-ISBN:978-1-84882-997-8. **<u>Indicative</u>** *Karahalios, H. (2015). The Management of Maritime Regulations.* Abingdon, Oxon; Routledge. *Lloyd's Practical Shipping Guides: Port Management and Operations* (2008), Informa, London Song, D-W. & Panayides, P.M.(Eds.). (2021). *Maritime Logistics: A Guide to Contemporary Shipping and Port Management (3rd Edition).* Kogan Page Publishers, ISBN: 978-1-78966-170-5 *Lloyd's Practical Shipping Guides: Break Bulk and Cargo Management* (2022), Informa, London *The Admiralty Manual of Navigation Volume I (11th Edition)* (2019), The Nautical Institute, London, ISBN: 978-1906915643 *Hellenic Shipping News Worldwide*, https://www.hellenicshippingnews.com/ *Tradewinds News*, available from PolyU Library online access *Shipping Intelligence Network*, available from PolyU Library online access	