

# The Hong Kong Polytechnic University

## Subject Description Form

<b>Subject Code</b>	LGT4006
<b>Subject Title</b>	Advanced Navigation and Ship Handling
<b>Credit Value</b>	3
<b>Level</b>	4
<b>Normal Duration</b>	1-semester
<b>Pre-requisite</b>	LGT3004 Navigation and Communication Systems
<b>Role and Purposes</b>	<ol style="list-style-type: none"> <li>1. This subject will provide students a full knowledge of practical management of ship navigation in both normal and emergency situations. It also provide students the fundamental principles of safe operation in Ship Handling.</li> <li>2. To promote students' interest in seagoing careers and enhance their qualifications for the sea time remission requirement granted by the Marine Department of HKSAR towards the examination of Sea Going Class 3 (Deck) Certificate of Competency.</li> <li>3. To provide adequate professionally-related skills and knowledge to the students for them to make readily contribution on navigational knowledge to the organization which employ them. To provide also a foundation for their future professional development, thus meeting <b>(Outcome 11)</b> the BBA Program Learning Outcomes.</li> </ol>
<b>Subject Learning Outcomes</b>	<p>Upon completion of the subject, students will be able to:</p> <ol style="list-style-type: none"> <li>a. Prepare and execute a safe passage planning for a seagoing ship; Manage its bridge resources and bridge team effectively;</li> <li>b. Manage and execute berthing and un-berthing operations of a seagoing ship; and</li> <li>c. Understand the operation and coordination of maritime search and rescue operations to ships under distress or emergency.</li> </ol>
<b>Subject Synopsis/ Indicative Syllabus</b>	Practices of navigation; various navigational instruments in use; tidal calculations; bridge procedures; principles and practices of collision avoidance; vessel traffic management services; position reporting systems; use and interpretation of weather data; bridge resources management; bridge teamwork; passage planning and monitoring; ship maneuvering; berthing and un-berthing; use of tugs and other maneuvering devices; managing emergencies in port and at sea: towage, salvage and offshore supply; sea survival; search and rescue.

<b>Teaching/Learning Methodology</b>	<p>In the lectures, the general principle of the above mentioned topics will be presented and developed. During the tutorial and laboratory sessions, students will learn to develop and apply the general principle of these topics under simulation, as well as other student-centered activities.</p>																																																															
<b>Assessment Methods in Alignment with Intended Learning Outcomes</b>	<table border="1" data-bbox="536 416 1390 819"> <thead> <tr> <th rowspan="2">Specific assessment methods/tasks</th> <th rowspan="2">% weighting</th> <th colspan="6">Intended subject learning outcomes to be assessed (Please tick as appropriate)</th> </tr> <tr> <th>a</th> <th>b</th> <th>c</th> <th></th> <th></th> <th></th> </tr> </thead> <tbody> <tr> <td>1. Coursework</td> <td>60%</td> <td>✓</td> <td>✓</td> <td>✓</td> <td></td> <td></td> <td></td> </tr> <tr> <td>2. Examination</td> <td>40%</td> <td>✓</td> <td>✓</td> <td>✓</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Total</td> <td>100 %</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p>Assessment of Intended Learning Outcomes:</p> <p>Means of assessment on coursework and examination are suitably employed to assess students' understanding of the legal and practical issues in the subject areas.</p> <p><i>Students are required to obtain at least Grade D or above in BOTH the Continuous Assessment and Exam components for passing these subjects.</i></p>								Specific assessment methods/tasks	% weighting	Intended subject learning outcomes to be assessed (Please tick as appropriate)						a	b	c				1. Coursework	60%	✓	✓	✓				2. Examination	40%	✓	✓	✓				Total	100 %																								
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<b>Reading List and References</b>	<p><b><u>Essential</u></b></p> <p>Danton, G. (1996), <i>The Theory and Practice of Seamanship</i>, 11th edition, London: Routledge.</p> <p>House, D.J. (2006), <i>Navigation for Masters</i>, London: Witherby.</p> <p>MacElrevey, D.H. (2004), <i>Shiphandling for the Mariner</i>, Centerville, Md.: Cornell Maritime Press.</p>																																																															

**Supplementary**

Admiralty Manual of Navigation (1987) Volume 1. London: Her Majesty's Stationery Office.

House, D.J. (2007), *Ship Handling*, Oxford: Elsevier

Marsden, R.G. (2003), *Marsden on Collisions at Sea*, London: Sweet & Maxwell.

Williamson, P.R. (2001), *Ship Manoeuvring Principles and Pilotage*, London: Witherby and Co. Ltd.

**Indicative**

Barrass, C.B. (2009), *Ship Squat and Interaction*, Volumes 1 & 2. Edinburgh: Witherby Seamanship International

Wilde, J.N. (2008), *Navigation – Guidance for Senior Students*, Southampton: Warsash Publishing