

Course Description Form

Basic Course Specifications				
Course Title	: Practical Navigation			
Course Code	: TI 336			
Program on which the course is given	: <input checked="" type="checkbox"/> Bachelor	<input type="checkbox"/> Diploma	<input type="checkbox"/> Master	<input type="checkbox"/> Pre-PhD
Academic year	: 2015/2016			
Specialization (units of study)	: Application : 180 Hrs. Credit :3H			
Pre-Requisites	: BS 214 & BS 234			
Overall Course Objectives				
<p>The course aims to enable the student to distinguish between types of fixing methods, bearings, types of ship's tracks and courses in addition to use the celestial bodies to determine ship position and compasses error beside understanding the methods of fixing using celestial sphere; According to STCW 1978 as amended in addition to IMO model course 7.03.</p>				
Intended Learning Outcomes				
Knowledge and Understanding				
<p>At the end of the course the students will be able to:</p> <ul style="list-style-type: none"> a.1 Competent to carry out voyage planning a.2 Realize the importance of NAVIGATION and understand the main concept. a.3 Distinguish between types of fixing methods, bearings, types of ship's tracks and courses. a.4. Describe the types of compasses , understand their uses and compasses error a.5. Define position lines and understand the methods of fixing 				
Intellectual Skills				
<p>At the end of the course, students should be able to</p> <ul style="list-style-type: none"> b.1 Use the celestial bodies to determine ship position. b.2 Demonstrate plotting of ship's position on the chart using positions lines and methods of fixing b.3 Collect, analyses and evaluate information . b. 4 Calculate hight of tide using Tide tables and Tidal Stream.. 				
Professional and Practical skills				
<p>At the end of the course, students should be able to:</p> <ul style="list-style-type: none"> c.1 Use various nautical charts. c.2 Read the chart abbreviations and be familiar with the common symbols. c.3 Calculate course, distance and arrival position using sailing methods. c.4 Extract ship position by terrestrial observations, set ship courses and calculating estimated time of arrival. c.5 Calculate the time of Sunrise, Sunset and Meridian passage. c.6 Check for and adjust sextant errors. c.7 Practical use of sextant to obtain position line using sun and star. c.8 Practical use of sextant to obtain position line using coastal object. c.9 Apply compass error and compass bearing sign fixing methods whether by celestial bodies or by coastal objects. c.10 Apply Celestial Navigation methods to fix the ship's position (sun run method and simultaneous sights) 				
General and Transferable skills				
<p>At the end of the course, students should be able to:</p> <ul style="list-style-type: none"> d.1 Handle navigational watch. d.2 Demonstrate the art of plotting on the chart . d.3 Make follow the ship position by different methods . 				

Course content				
Lect. #	Topic	Hrs#	Theoretic al	Practical
1	Select charts with adequate scale & consult nautical publications	9		9
2	Planning of a passage between two ports from berth to berth	9		9
3	Sextant parts and errors & Applications on marine compasses error	9		9
4	Applications on straight, circular and relative position lines to plot on the chart	9		9
5	Applications on altitude correction (Sun and Stars)	9		9
6	Applications on Intercept (Marquee St. Hailer Method) Sun & Stars	9		9
7	Assessmentt	9		9
8	Applications on finding height of tide at a given time	9		9
9	Compass Error (Time, Amplitude and Polaris methods)	9		9
10	Applications on Running Fix	9		9
11	Applications on Preparation of Stars for sights	9		9
12	Assessment	9		9
13	Information from Charts, Lists of Lights and Other Publications	9		9
14	Applications on finding the time of determined height of tide	9		9
15	Exercise on Chart work under effect of wind, current and tidal stream	9		9
16	Applications on Sailing Methods & states Mercator Sailing formula	9		9
17	Applications on Simultaneous Sights	9		9
18	Applications on Noon Sight	9		9
19	Content, application and intent of COLREG	9		9
20	Assessment	9		9

Teaching & learning methods				
Practical Work , Group Work , Individual Study and Problem Study				
Facilities required for Teaching & learning methods				
<input type="checkbox"/> Computer Lab	<input type="checkbox"/> Overhead Slide	<input type="checkbox"/> Guided Sea Training work Book	<input type="checkbox"/> Charts & publications	<input type="checkbox"/> Bridge instruments
Students Assessment Methods				
Assessment submission Schedule				

Assessment#1:	Continuous
Assessment#2:	Post voyage 4
Assessment#3 :	During Final Training voyage

Grading Method		
Attendance		None
Practical watch evaluation	<input type="checkbox"/>	Continuous 30 Marks
Presentations		None
Practical Assignments	<input type="checkbox"/>	20 Marks
Projects		None
Participation		None
Oral Examination	<input type="checkbox"/>	10 Marks
Final Examination	<input type="checkbox"/>	40 Marks
		Total 100%

*Assessment criteria shall meet the standards of the STCW 78 convention "as amended"; and in the light of the related IMO model courses

List of References

Course Notes

Description :

- Guided Sea Training Book (Part 2)

Essential Books

Description :

- Admiralty Manual of Navigation (Vo I. & Vo II.)
- The American practical navigator – Bowditch

IMO

Description :

- R1 STCW,1978, as amended(ISBN 978-92-801-1528-4)
- ,R3 Ships routing
- R33 Resolution A.528(13)

Periodicals and publications

Description :

- Training Nautical Chart 2375& Admiralty Publications

Others (websites, e-books...etc)

Description :

- International Convention on Standards of Training, Certification and Watch keeping for Seafarers (STCW),with Amendments.