Course Description Form

Basic Course Specifications					
Course Title	:	**Applied Cargo Handling & Securing**			
Course Code	:	**TI 353**			
Program on which the course given		❒ **Bachelor**	❒ **Diploma**	☐ **Master**	☐**Pre- PhD**
Academic year	:				
Specialization (units of study)	:	Application : 180 Hrs. Credit :3H			
Pre-Requisites	:	S 305			

Overall Course Objectives

This syllabus covers the requirements of the STCW 78, as amended (Manila 2010) chapter 11, section A-11/1**. This function element provides the detailed knowledge to support the training outcomes related to cargo Handling and Stowage at the operational level.**
At the end of the course the students will be able to:

- Inspect and report defects and damage to cargo spaces, hatch covers and ballast tanks.
- Use cargo plans, capacity plans and tables or diagrams of stability and trim data to calculate the ship's initial stability.
- Make damage report and make holds survey.
- Use international maritime solid bulk cargoes (IMSBC) code and be able to use code of safe practice for cargo stowage and securing.
- Identify dangerous goods and know that they are stowed and separated according to requirements of the IMDG Code.

Intended Learning Outcomes

Knowledge and Understanding

The student should be able to:
a.1 Demonstrate the cargo handling safety.
a.2 Read draught and be able to calculate trim and make stability calculation.
a.3 Prepare the holds for loading cargo and realize the precautions to be taken during loading and discharging of bulk cargo.
a.4 Describe how to make inspection for a hatch cover.
a.5 Describe the purpose of ballast tanks and how to make inspection for it.

Intellectual Skills

By the end of the program the student should have acquired the following concepts :
b.1 Understand the reasons and methods of stowing and securing different types of cargoes.
b.2 Taking a quick, appropriate, and accurate decision if required.
b.3 Make cargo plans and demonstrate the use of hold capacity plan.
b.4 Be able to deal with different crews from different countries with different attitudes and backgrounds.

Professional and Practical skills

. By the end of the program the student should be able to:
c.1 Open and close hatches.
c.2 Communicate with the stevedores during cargo operations.
c.3 Use stability booklet.
c.4 Use IMSBC code book.
c.5 Perform cargo calculations.
c.7 Use code of safe practice for cargo stowage and securing existed on his vessel.
c.8 Use IMDG code to realize all information related to dealing with dangerous, hazardous and harmful cargoes.
c.9 Inspect hatch covers.
c.10 Make inspection for some ballast tanks.
c.11 Make a damage report.

c.12 Understand the enhanced survey program.

General and Transferable skills

At the end of the course, students should be able to:
d.1 Handle with IMO references.
d.2 Practically handle with cargo operations.
d.3 Handle with ISM Code.

	Course content			
WK. #	**Topic**	**Hrs#**	**Theoretical**	**Practical**
1	Securing Cargoes	9		9
2	Cargo Handling Safety	9		9
3	Draught, Trim and Stability	9		9
4	Bulk Cargo.	9		9
5	Bulk Cargo.	9		9
6	Bulk grain cargo	9		9
7	Assessment	9		9
8	Bulk grain cargo	9		9
9	Cargo calculations	9		9
10	cargo plans	9		9
11	Dangerous, Hazardous and Harmful Cargoes	9		9
12	Assessment	9		9
13	Dangerous, Hazardous and Harmful Cargoes	9		9
14	Hatch covers inspection	9		9
15	Cargo Space Inspections	9		9
16	Cargo Space Inspections	9		9
17	Ballast tanks inspection	9		9
18	Damage report	9		9
19	Enhanced Survey Program	9		9
20	Final Assessment	9		9

Teaching & learning methods				
Practical Work , Group Work , Individual Study, Demonstration, Lecture				
Facilities required for Teaching & learning methods				
❒ **Computer Lab**	❒ **Overhead Slide**	❒ **Guided Sea Training work Book**	❒ **Deck equipment**	❒ **Port equipment**

Students Assessment Methods	
Assessment Submission Schedule	
Assessment#1: Written and Oral examination	Post voyage 2
Assessment#2: Written and Oral examination	Post voyage 4
Assessment#3 : Written and Practical examination	During Final Training voyage

Grading Method		
Attendance	❒	**None**
Practical watch evaluation	❒	**Continuous 30 Marks**
Presentations	❒	**None**
Practical Assignments	❒	**20 Marks**
Projects		**None**
Participation		**None**
Oral Examination	❒	**10 Marks**
Final Examination	❒	**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 1)
Essential Books		
Description	:	• Ship Stability for Masters and Mates ,seventh edition • Cargo Work ,captain L. G Taylor • Seamanship techniques , third edition
IMO		
Description	:	• International Convention on Standards of Training, Certification and Watchkeeping for Seafarers(STCW),1978, as amended • International Convention for The Safety of Life at Sea (SOLAS),2009 • International Convention on Load Lines,1966 • International maritime dangerous goods code (IMDG Code) • Reference labels and placards for the carriage of dangerous goods • Emergency procedures for ships carrying dangerous goods (EmS) • Code of safe practice for solid bulk cargoes • Assembly resolution A.489(XII)-Safe stowage and securing of cargo units • International code for the safe carriage of grain in bulk (international grin code)
Periodicals and publications		
Description	:	• Stability book • Tank Sounding Table

Others (websites, e-books…etc)		
Description	:	• www.imo.org

Matrix of knowledge and skills of the Educational Course

University/ Academy	:	**AASTMT**	**Course name:Operative Cargo Handling & Stowage**
College/ Institute	:	**Sea Training Institute**	**Course code:TI 352**
Department	:	**Marine Department**	

Week	Content	Knowledge	Intellectual Skills	Professional Skills	General Skills
1	Securing Cargoes		b.1	c.7	d.1
2	Cargo Handling Safety	a.1			d.3
3	Draught, Trim and Stability	a.2		c.3	
4	Bulk Cargo.	a.3		c.3	d.1
5	Bulk Cargo.	a.3		c.3	d.1
6	Bulk grain cargo	a.3		c.3	d.1
7	Assessment	a.1,a.2,a.3,	b.1	c.3,c.6	
8	Bulk grain cargo	a.3		c.3	d.1
9	Cargo calculations	a.2		c.5	
10	cargo plans		b.3		d.3
11	Dangerous, Hazardous and Harmful Cargoes			c.7	d.1
12	Assessment	a.2,a.3	b.3	c.5,,c.7	
13	Dangerous, Hazardous and Harmful Cargoes			c.7	d.1
14	Hatch covers inspection	a.4		c.1,c.8	d.3
15	Cargo Space Inspections				d.3
16	Cargo Space Inspections				d.3
17	Ballast tanks inspection	a.5		c.3,c.9	d.3
18	Damage report			c.10	
19	Enhanced Survey Program			c.11	
20	Final Assessment	a			

Instructor **Dean**