Course Description Form

Course Code : M Program on which the course is given Academic year : Specialization (units of study) : T Pre-Requisites : M This syllabus covers the requirements of the ST This functional element provides the detailed k and Ship construction at the operational level. Known At the end of the course, students should be able a.1 Understand the meaning and the role of IAC a.2 Known and understand ship dimensions. a.3 Known construction parts of different types a.4 Understand types of Stresses acts on ship's a.5 Understand the Naval following tasks (Arcla a.6 Understand Displacement, displacement curdefinition and calculations. a.7 Coefficients of form (definition and calcular a.8 Stability Of Ships (Equilibrium, Stable and a.9 Centre of gravity (KG, LCG) calculations. a.10 Shift in Centre of Gravity Due to addition a.11 Propellers (apparent and real slip, wake are should be: b.1 In trust of themselves and act positively due to the whenever the situation necessitate. b.3 Recognize value of student and scientific steps.	M342 Bachelor Decretical 28 M241T (Navaverall Course CW 78 convert Decretical 28 M241T (Navaverall Course Decretical 28 Decretical	Diploma (hrs.) Simulated al Architecture & Se Objectives Intion Chapter III support the training and association of corruction members, viple, Relative density ulation by Morrish	Image: Master Or (hrs.) Praction Ship Construction ection A III/1. outcomes related lassification socie which resist these ty calculations.	to Naval architectuety).				
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At the end of the course, students should be abl	collage of mai	ritime transport and		the AASTMT				
	Professional and Practical skills							
 c.2 Write damage report if accident happened t c.3 Write name of damage construction parts in c.4 Student will be able to calculate and unders 	ey. ship's hull du preparing of c	dry dock job list.						
Gen								
At the end of the course, students should be abl d.1 Understanding of jobs carried out during dr	eral and Tran	nsferable skills						

	Course content							
Lect. #	Topic	Hrs.	Theoretical	Practical	Simulator			
1	• Familiarization (Introduction to ship construction, Importance of studying ship construction, Engineering drawings, ship building steels, ship building steel sections. IACS (International Association of Classification societies).	2	2					
2	Ship dimensions	1	1					
3	• Vessel structure	2	2					
4	 Types of ships, cross section of General cargo, cross-section of bulk carrier. Cross-section of container ship, cross section of Ro-Ro ship. Cross-section of Oil Tanker ship, cross section of Refrigeration ship. 	4	4					
5	• Framing system, bulwarks, pillars onboard training ship.	3		3				
6	• Fore end construction, stern construction, chain locker, thrusters.	5	2	3				
7	 Stresses acting on ship structure, General structure stresses. Stresses acting on ship structure, Local stresses. 	2	2					
8	Rudders. Bulkheads.	3	2	1				
9	• Archimedes principal, Relative density calculations.	1	1					
10	Displacement, displacement curve, VCB calculation by Morrishes approximate formula and TPC definition and calculations.	2	2					
11	• Coefficients of form (definition and calculations).	2	2					
12	• Stability Of Ships (Equilibrium, Stable, UnstableEtc.)	2	2					
13	• Centre of gravity (KG, LCG) calculations.	2	2					
14	Shift in Centre of Gravity Due to addition of mass Calculations.	2	2					
15	Propellers (apparent and real slip, wake and thrust).	2	2					
16 17	2 days visit to a floating dock.Final exam	10		10				

Teaching & learning methods							
Explanation of the lesson contents – discussing and asking questions to interact with students – audio-visual							
presentation -	practical work	-problem	solving.				
Facilities required for Teaching & learning methods							
□ Projector	□ Overhea	d Slide	Books & Guided sea training book				
<u> </u>	<u> overnea</u>	ia shac					
			Students Assessment	Methods			
Assessment sub	mission Schedu	ıle					
Assessment#1(V				2 nd trip summary subm	nit by end of 2 nd trip		
Assessment#2(V					•		
Assessment#3(V				4 th trip summary submit by began of 5 th trip Course summary submit by two weeks after final exam date			
Assessment#3(V	viitteii)			· · · · · · · · · · · · · · · · · · ·			
				•			
			Grading Metho	od			
Attendance				10 Marks			
Mid Term Exam	nination			30 Marks			
Presentations				None			
Assignments				20 Marks			
Projects				None			
Participation				None			
Oral Examination				None			
Final Examination 40 Marks							
Ψ Δ			. 1 1 C.1 CTCW/70	Total 100%	1 ! d 1! . 1 6 d .		
related IMO m		eet the star	ndards of the STCW 78	convention "as amended""; a	nd in the light of the		
Teluce IVIO II			List of Reference	ees			
Course Notes							
Description	Description : Guided sea training book & Lecturer notes						
Essential Books	3						
Description	: • S	Ship constr	uction by Dr. Abdel Hal	im Bassiony			
·							
		_	ruction by D.J.Eyres				
			arine engineering Series	s volume 4 Naval Architectur	re for Marine		
	Engineers.						
Recommended	Books						
Description	: • 1	REED'S m	narine engineering Series	s volume 4 Naval Architectur	re for Marine		
_	Description : REED'S marine engineering Series volume 4 Naval Architecture for Marine Engineers.						
		31181116131					
Periodicals and	publications						
Description	: • 9	Service m	anuals of training ship)			
IMO Reference							
Description				andards of Training, Certif	ication and Watch		
	Keeping for Seafarers (STCW78) as amended						

Matrix of knowledge and skills of the Educational Course

University/ Academy	:	AASTMT	Course name: Naval Architecture & Ship Construction II
College/ Institute	:	Sea Training Institute	Course code: MM342
Department	:	Engineering Guided Sea Training Department.	

Week	Course Contents	Knowledge	Intellectual Skills	Professional Skills	General Skills
1	Familiarization (Introduction to ship construction, Importance of studying ship construction, Engineering drawings, ship building steels, ship building steel sections. IACS (International Association of Classification societies).	a.1	b.3	c.1	
2	Ship dimensions	a.2			
3	Vessel structure	a.3		c.1-c.2-c.3	
4	Types of ships, cross section of General cargo, cross-section of bulk carrier. Cross-section of container ship, cross section of Ro-Ro ship. Cross-section of Oil Tanker ship, cross section of Refrigeration ship.	a.3		c.2	
5	Framing system, bulwarks, pillars onboard training ship.	a.3		c.2	
6	Fore end construction, stern construction, chain locker, thrusters.	a.3		c.2	
7	Stresses acting on ship structure, General structure stresses. Stresses acting on ship structure, Local stresses.	a.4			
8	Rudders. Bulkheads.	a.3			
9	Archimedes principal, Relative density calculations.	a.4		c.4	
10	Displacement, displacement curve, VCB calculation by Morrishes approximate formula and TPC definition and calculations.	a.6		c.4	
11	Coefficients of form (definition and calculations).	a.7	b.3	c.4	
12	Stability Of Ships (Equilibrium, Stable, UnstableEtc.)	a.8		c.4	
13	Centre of gravity (KG, LCG) calculations.	a.9		c.4	
14	Shift in Centre of Gravity Due to addition of mass Calculations.	a.10		c.4	
15	Propellers (apparent and real slip, wake and thrust).	a.11		c.4	
16	2 days visit to a floating dock.	a.3-a.11		c.1-c.2	d.1-d.2

Instructors Dean

Eng. Mohamed Elbawab.

Capt. Abdelhamid Alkady.

Eng. Ayman Elhattab.

EDQMS 3/2 App.7.2