

SYLLABI OF COURSES FOR DIPLOMA PROGRAMME IN SHIPBUILDING ENGINEERING, LEVEL IV&VI 25

5332 - SHIP CONSTRUCTION TECHNOLOGY										
Teaching Schedule Per Week			Progressive Assessment		Examination Schedule (Marks)					
Lectures	Practical	Credits			Theory		Practical Ex.		Total	
3	2	5	25	25	3Hrs	100	-	-	150	
Pre-requisite		Source	US Semester	Theory	Test	Total	TW	PR	Gr Total	
4331		SHB			75	25	100	25	-	125

Rationale: Technician involved in shipbuilding is required to supervise the job during construction phase. He should be acquainted with all practical technical know-how of fabrication and alignment of various ship structures. The course content has been so designed that the students acquire knowledge and skill in execution of projects pertaining to structures in shipbuilding. Having studied this subject, student should be able to:
Know nomenclature used to describe ship structural components.

COURSE CONTENTS	Hrs	Mks
1. SHIP STRUCTURE		
Bottom structure – Single bottom construction and double bottom construction – keels, types of floors, girders, bottom frames- transverse and longitudinal framing	6	14
Side shell and decks – transverse and longitudinal framing, side, transverse- deck transverse/beams bilge keel, longitudinal, stringers, deck girders.	6	14
Bulkheads- Corrugated, ordinary, transverse, longitudinal & stiffening angle pillars, hatches & superstructures	8	15
Fore end and Aft end structures- Fore-end-stem-stembar, painting stringers, breast hooks, deep floors, chain locker, bulbous bow, hawse pipe, bow thruster.	12	25
Aft end-stern-cruiser, transom stern, stern frame, steering gear, rudder-types and applications, stern tube, A-bracket and Bossing.	4	10
Closing appliances-doors, hatches, skylights, ventilator covers.	5	10
Structural details of tankers-Double hull construction, bulkheads, midship section, and construction in tank spaces.	7	12
2. DECK MACHINERY		
Mooring and rigging arrangement, masts, life saving appliances, access ladders, gangways.	48	100
Total		

PRACTICALS (Sketching & Describing)

1. Double bottom, types of floors & their application
2. Single bottom construction details
3. Transverse & longitudinal framing
4. Structural deck plan
5. Bulkheads- Corrugated, ordinary, transverse, longitudinal, stiffening arrangement.
6. Fore-peak structure, stem bar, painting stringers, breast hooks and deep floors
7. Closing appliances-doors, hatches, skylights, ventilator covers.
8. Rudders – single plated, double plated, balanced, semi-balanced, un-balanced.

REFERENCE BOOKS

1. Merchant Ship Construction by D.A.Taylor
2. Ship Design & Construction by R Taggart
3. Ship Construction by D.J.Eyres.
4. Merchant Ship Construction by Pursey
5. Reed's series, Ship Construction Vol. 5 for Marine students.
6. Ship Construction by Baker
7. Ship Construction for Marine Engineering by Hogg.
8. Ship & Naval Architecture by R. Munro-Smith.