4333 - SHOP FLOOR PRACTICES – I

Teaching Schedule Per Week			Progressive Assessment		Examination Schedule (Marks)			
					Theory		Practical Ex.	Total
Lectures	Practical	Credits						
2	2	4	25	25	3 Hrs	100	-	150

Pre-requisite	Source
2004	SHB

Semester	Theory	Test	Total	TW	PR	Gr Total	14
	75	25	100	25	–	125	

Rationale - As a supervisor in shipbuilding Engineering Industry, student should know the working principle of various machines used by the Industries, their work range, tools used for different operations and their maintenance. The commonly used machines in Industry are dealt here. Enough practical exposure is also given to develop minimum skill to perform various operations. The student should be able to select the proper machine and proper tool for a particular operation. The student should be able to perform a given operation on a particular machine and take care of maintenance and safety of men, machine and tools.

COURSE CONTENTS	Hrs	Mk
	8	24

1. LATHE

Introduction. Specification of centre lathe. Methods of taper-turning- their advantages and limitations. Thread cutting on lathe. Various accessories used on lathe. Tools used for common operations. Cutting fluid. General safety precautions and maintenance of machine.

2. GRINDING MACHINES — Introduction. Types of grinding machine. Shapes and sizes of grinding wheel. Precautions while mounting grinding wheel. General safety precautions and maintenance.	3	8
3. DRILLING MACHINES — Introduction. Types of drilling machines. Work holding devices Tool holding devices. Operation on drilling machine. Tools used on drilling machine. General safety precautions and maintenance.	6	20
4. BORING MACHINE — Introduction. Types of boring machines. Boring machine mechanism. Parts of horizontal boring machine, work holding devices for horizontal boring, horizontal boring machine operations, boring tool mountings for horizontal boring, boring tools, general safety precaution and maintenance.	6	20
5. BENDING MACHINE — Introduction. Types of bending machines-Plate bending, angle/frame bending and pipe bending machines. Factors involved in bending, heating and bending application. Three-dimensional bending for ship construction. General safety, safety precautions and maintenance, plate rolling machines.	6	20
6. PAINTING — Introduction, methods of surface preparation, method of painting, equipment required for spray painting, general safety precaution and maintenance of equipment.	3	8
Total	32	100