



DAFFODIL POLYTECHNIC INSTITUTE, Institute Code: 50238

Lesson Plan, Academic Session : August 23 - January 24	
Subject Teacher	Shariful Islam Shishir
Subject Name	Wood Workshop Practice
Subject Code	26521
Technology	Civil
Semester	4th
Reference Book	BTEB Wood Workshop Practice (Any Publication)
eLearning Course Link	https://dpi.df.daffodil.family/slides/wood-workshop-practice-26521-371

The Grade System					
Marks	Grade Point	Letter Grade	Marks	Grade Point	Letter Grade
80>	4.00	A+	55-59	2.75	B-
75-79	3.75	A	50-54	2.50	C+
70-74	3.50	A-	45-49	2.25	C
65-69	3.25	B+	40-44	2.00	D
60-64	3.00	B	00-39	0.00	F
Mark Distribution					
26443	Wood Workshop Practice		T	P	C
			1	3	2
Marks			50	50	100

Theory Continuous		Theory Final		
Mid-term exam	20%	Very short question	1*10	10%
Class test	06%	Short question	2*10	20%
Quiz test	04%	Broad question	6*5	30%
Presentation & Assignment	05%	Total		60%
Attendance	05%	NB. One option will give on broad question		
Total	40%			
NB. Above 90% of attendance-5%, 80% to 89%-4%, 70% to 79%-3%, 60% to 69%-2%				

Practical Continuous		Practical Final	
Job/ Experiment	25%	Job/ Experiment	30%
Homework	05%	Job/ Experiment report	10%
Job/ Experiment report	05%	Viva	10%
Viva	05%	Total	50%
Behavior	02%		
Attendance	08%		
Total	50%		
NB. Above 90% of attendance-5%, 80% to 89%-4%, 70% to 79%-3%, 60% to 69%-2%			

Time Distribution	
Particular Time	
Greeting with students	5 Min
Previous class review	10 Min
Present class lecture	60 Min
Feedback	10 Min
Attendance	5 Min

Rational

Wood Workshop practice is the backbone of the real Wood industrial environment. This subject will help to develop and enhance relevant technical hand skills required by the technician working in the various engineering industries and wood workshops. This course intends to impart basic know-how of various hand & power tools and their use in different sections of furniture manufacturing. Irrespective of branch, the use of workshop practices in day to day industrials well domestic life helps to dissolve the problems. The workshop experiences would help to build the understanding of the complexity of the industrial job, along with time and skills requirements of the job. Workshop curricula build hands-on experiences which would help to learn manufacturing processes and production technology courses in successive semesters. Workshop practice is also important since only practice can make the man perfect. The subject covers only such topics which will enable the diploma engineers to identify and classify the different types of wooden joints, OSH & Safety, Hand & Power tools. The emphasis will be more on teaching practical aspects rather than theory.

Learning Outcome(Theoretical)

After undergoing the subject, students will be able to-

OSH practice, Different types of hand and power tools, Wooden joints and their uses.

- Describe OSH and Safety.
- Explain the measuring and marking tools.
- Mention different types of hand tools.
- Describe the different types of power tools.
- State procedure the different types of wooden joints.

Learning Outcome (Practical)

After undergoing the subject, students will be able to

- Apply OSH and safety.
- Uses of measuring, marking hand & power tools.
- Show skill in sawing, planning and cutting wood pieces.

- Show skill in making different types of wood joints.
- Apply polish to wooden works.
- Prepare one complete job as project work.

Lesson Plan (Theoretical)

Lecture	Chapter/ Exam / Industrial Visit	Learning Area	Learning Outcome	Class/Lab Supporting Equipments
1	Chapter 1	OSH PRACTICES AND SAFETY IN THE WORKPLACE. 1.1 Define OSH Practices. 1.2 Mention Safety Signs and symbols. 1.3 Mention personal protective equipment (PPE). 1.4 Describe the improving OSH performance and are identified and raised with relevant personnel.	1.1 Students can define OSH practices. 1.2 Students can mention safety and symbols, 1.3 Students can mention PPE 1.4 Students can describe the improving OSH performance and are identified and raised with relevant personnel.	Projector https://youtu.be/4bkr5lpKGUM
2	Chapter 1	OSH PRACTICES AND SAFETY IN THE WORKPLACE. 1.5 State the safety records according to workshop policies. 1.6 State the Importance of wood workshop OSH and safety. 1.7 Mention the wood workshop safety rules. 1.8 Describe the safety procedures when using wood working machines and tools.	1.5 Students can state the safety records according to workshop policies. 1.6 Students can state the importance of wood workshop OSH and safety, 1.7 Students can mention the wood workshop safety rules. 1.8 Students can describe the safety procedures when using wood working machines and tools.	Projector https://youtu.be/4bkr5lpKGUM
Quiz-1		Quiz on 1st chapter	To overcome the fearness of exam	After the end time of 1st lecture
3	Chapter 2	MEASURING AND MARKING INSTRUMENTS FOR WOOD WORKS. 2.1 Define measuring and marking tools. 2.2 Mention the measuring and marking tools. 2.3 State folding rule, steel rule and steel tape. 2.4 State the marking Gauge, Mortise Gauge, Compass, Divider, Scriber for marking knife and Carpenter's vice. 2.5 State the measure and marking procedure of wood works.	2.1 Students can define measuring and marking tools. 2.2 Students can mention the measuring and marking tools. 2.3 Students can state folding rules, steel rules and steel tape. 2.4 Students can state the marking gauge, mortise gauge, compass, divider, scriber for marking knife and carpenter's vice. 2.5 Students can state the measure and marking procedure of wood works.	Projector https://youtu.be/goqT5L9_5NI
4	Chapter 2	MEASURING AND MARKING INSTRUMENTS FOR WOOD WORKS. 2.6 State the Importance of the measurement and marking of wood works. 2.7 Describe the marking out tools in wood work. 2.8 Classify measuring and marking out tools. 2.9 Mention the uses of measuring & marking tools.	2.6 Students can state the importance of the measurement and marking of wood works. 2.7 Students can describe the marking out tools in woodwork. 2.8 Students can classify measuring and marking out tools. 2.9 Students can mention the uses of measuring & marking tools.	Projector https://youtu.be/goqT5L9_5NI
Assignment-1		Assignment on 1st & 2nd chapter	To understand OHS practice and safety in the workplace & understand measuring and marking instruments for wood works	Must be submitted to the next theoretical class.
Class test-1		Class test-1 on first two chapter		At 5th week

5	Chapter 3	WOODWORKING HAND TOOLS. 3.1 Mention common and basic hand tools required in carpentry works. 3.2 Classify the wood workshop hand tools. 3.3 State the basic hand tools required to undertake simple carpentry works. 3.4 Describe the minor maintenance and sharpening of tools used for wood works.	3.1 Students can mention common and basic hand tools required in carpentry works. 3.2 Students can classify the wood workshop hand tools. 3.3 Students can state the basic hand tools required to undertake simple carpentry works. 3.4 Students can describe the minor maintenance and sharpening of tools used for wood works.	Projector https://youtu.be/V8BJqTJX7q4
6	Chapter 3	WOODWORKING HAND TOOLS. 3.5 Explain the safety procedure during working in the wood shop. 3.6 Describe the Clean workplace and store tools and equipment. 3.7 Define the traditional woodworking hand tools. 3.8 Explain the Dust collection and workshop vacuums.	3.5 Students can explain the safety procedure during working in the wood shop. 3.6 Students can describe the clean workplace and store tools and equipment. 3.7 Students can define the traditional woodworking hand tools. 3.8 Students can explain the dust collection and workshop vacuums.	Projector https://youtu.be/V8BJqTJX7q4
Midterm exam on first three chapter				
7	Chapter 4	WOODWORKING PORTABLE MACHINE. 4.1 Mention woodworking portable power tools. 4.2 List down the Essential power tools 4.3 Mention the uses of power tools. 4.3 Describe the different types of portable saw and planer machine. 4.4 Describe the different types of drill and sanding machine.	4.1 Students can mention woodworking portable power tools. 4.2 Students can list down the essential power tools 4.3 Students can mention the uses of power tools. 4.3 Students can describe the different types of portable saw and planer machine. 4.4 Students can describe the different types of drill and sanding machine.	Projector https://youtu.be/XWRZE_zxb_A
8	Chapter 4	WOODWORKING PORTABLE MACHINE. 4.5 Explain the procedure of nail gun, air gun, air-compressor, screw gun, lacquer spray gun. 4.6 Mention the Maintenance procedure of power tools machines. 4.7 Mention the sharpening procedure of power tools. 4.8 List down the different types of portable machine blade, saw and bits.	4.5 Students can explain the procedure of nail gun, air gun, air-compressor, screw gun, lacquer spray gun. 4.6 Students can mention the maintenance procedure of power tools machines. 4.7 Students can mention the sharpening procedure of power tools. 4.8 Students can list down the different types of portable machine blade, saw and bits.	Projector https://youtu.be/XWRZE_zxb_A
9	Chapter 5	WOOD JOINT. 5.1 Define woodworking joints. 5.2 Mention the wood joints. 5.3 Mention the unique purposes of wood joints. 5.4 Introduction to various types of wooden joints, their relative advantages and uses.	5.1 Students can define woodworking joints. 5.2 Students can mention the wood joints. 5.3 Students can mention the unique purposes of wood joints. 5.4 Students can introduce various types of wooden joints, their relative advantages and uses.	Projector https://youtu.be/0jXg1SnCMho
10	Chapter 5	WOOD JOINT. 5.5 Importance of wooden joints. 5.6 Mention the different strongest wood joints. 5.7 Methods of joining wood. 5.8 Explain the different Materials used for wood joints. 5.9 Describe the Polishing method for wooden work.	5.5 Students can understand the importance of wooden joints. 5.6 Students can mention the different strongest wood joints. 5.7 Students can understand methods of joining wood. 5.8 Students can explain the different Materials used for wood joints. 5.9 Students can describe the Polishing method for wooden work.	
Class test-2		Class test-2 on 4th & 5th chapter		At 12th week

Assignment-2	Assignment on 4th & 5th chapter	To understand portable machine and wood joints	Must be submitted to the next theoretical class.
Model test			

Lesson Plan (practical)

Lecture	Chapter/ Lab / Industrial Visit	Learning Area	Learning Outcome	Class/Lab Supporting Equipments
1	1	APPLY OSH PRACTICES & SAFETY IN THE WORKPLACE. 1.1 Check the OSH hazards and Safety in the workplace. 1.2 Identify and corrective action for Hazards. 1.3 Make OSH hazards and incidents report in the workplace. 1.4 Apply OSH practices in the workplace. 1.5 Select and worn personal protective equipment (PPE). 1.6 Identify Risks measured in the work area. 1.7 Show emergency response procedures in the workplace. 1.8 Maintain and improve health and safety	1.1 Students can check the OSH hazards and Safety in the workplace. 1.2 Students can identify and corrective action for Hazards. 1.3 Students can make OSH hazards and incidents report in the workplace. 1.4 Students can apply OSH practices in the workplace. 1.5 Students can select and wear personal protective equipment (PPE). 1.6 Students can identify risks measured in the work area. 1.7 Students can show emergency response procedures in the workplace. 1.8 Students can maintain and improve health and safety	PPE https://youtu.be/8JBD0PmYicI
2	2	PREPARE WOOD FOR WORK 2.1 Select Wood and wood substitutes for the job. 2.2 Check the quality of wood as per work. 2.3 Take the dimensions of the woodwork piece. 2.4 Use preservatives of wood. 2.5 Maintain the record of performed job.	2.1 Students can select Wood and wood substitutes for the job. 2.2 Students can check the quality of wood as per work. 2.3 Students can take the dimensions of the woodwork piece. 2.4 Students can use preservatives of wood. 2.5 Students can maintain the record of performed job.	Wood
Lab report-1	Report on 1st & 2nd lab class	To practice.	Must be submitted to the next theoretical class.	

3	3	USE MEASURING TOOLS & EQUIPMENT 3.1 Select the Measuring tools and equipment. 3.2 Tolerance and clearance limit for performed job. 3.3 Taken Measurement according to drawing or specification. 3.4 Check Measurement against job requirement. 3.5 Clean & Store measuring instruments. 3.6 Dispose the Waste materials form the workplace. 3.7 Maintain the record of performed job.	3.1 Students can select the measuring tools and equipment. 3.2 Students can tolerate a clearance limit for performing jobs. 3.3 Students can take measurements according to drawing or specification. 3.4 Students can check Measurement against job requirements. 3.5 Students can clean & store measuring instruments. 3.6 Students can dispose of the waste materials form the workplace. 3.7 Students can maintain the record of performed jobs.	Measuring tools https://youtu.be/5Bh-R7orEnE
4	4	USE HAND TOOLS FOR WOOD WORKSHOP. 4.1 Select the hand tools as per task. 4.2 Prepare Hand tools for work. 4.3 Check Hand tools 4.4 Repair unsafe or faulty tools. 4.5 Operate the Hand tools. 4.6 Clean and store Hand tools. 4.7 Maintain the record of performed job.	4.1 Students can select the hand tools as per task. 4.2 Students can prepare hand tools for work. 4.3 Students can check Hand tools 4.4 Students can repair unsafe or faulty tools. 4.5 Students can operate the hand tools. 4.6 Students can clean and store hand tools. 4.7 Students can maintain the record of performed job.	Hand tools
5	5	USE POWER TOOLS FOR WOOD WORKSHOP. 5.1 Select Power tools as per task. 5.2 Collect Power tools for work. 5.3 Check Power tools. 5.4 Identify unsafe or faulty tools. 5.5 Check the holding and clamping devices. 5.6 Operate the Power tools. 5.7 Clean and store Power tools. 5.8 Maintain the record of performed job.	5.1 Students can select power tools as per task. 5.2 Students can collect power tools for work. 5.3 Students can check power tools. 5.4 Students can identify unsafe or faulty tools. 5.5 Students can check the holding and clamping devices. 5.6 Students can operate the Power tools. 5.7 Students can clean and store Power tools. 5.8 Students can maintain the record of performed job.	Power tools
6	6	SAWING, PLANNING AND CUTTING OF WOOD PIECE. 6.1 Select Sawing, Planning and Cutting machine according to job requirements. 6.2 Perform different types of sawing on different parts. 6.3 Follow safety procedures during sawing. 6.4 Identify the planning tools for the required job. 6.5 Follow the procedure of planning. 6.6 Select the right size and types of cutting tools. 6.7 Observe the safe procedure for cutting. 6.8 Clean workplace and equipment. 6.9 Maintain the record of performed job.	6.1 Students can select sawing, planning and cutting machines according to job requirements. 6.2 Students can perform different types of sawing on different parts. 6.3 Students can follow safety procedures during sawing. 6.4 Students can identify the planning tools for the required job. 6.5 Students can follow the procedure of planning. 6.6 Students can select the right size and types of cutting tools. 6.7 Students can observe the safe procedure for cutting. 6.8 Students can clean their workplace and equipment. 6.9 Students can maintain the record of performed job.	Saw, sand papers and cutting tools woods https://youtu.be/3O8Dii2HfKM

7	7	MAKE DIFFERENT TYPES OF WOOD JOINT. 7.1 Select appropriate size of wood used in the job. 7.2 Select tools and equipment for the specific job. 7.3 Put marking the wood for jobs.(As per Drawing). 7.4 Make Cross lap joint, Rabbet joint, Butt joint, Tongue and Groove joint, T-halving joint, Tenon & Mortise joint, Half lap dovetail joint, Corner dovetail joint. 7.5 Make holes in wood, countersunk and wood joints with screw and nailing. 7.6 Clean workplace and equipment. 7.7 Maintain the record of performed job.	7.1 Students can select the appropriate size of wood used in the job. 7.2 Students can select tools and equipment for the specific job. 7.3 Students can mark the wood for jobs.(As per Drawing). 7.4 Students can make a cross lap joint, rabbet joint, butt joint, tongue and groove joint, T-halving joint, tenon & mortise joint, half lap dovetail joint, corner dovetail joint. 7.5 Students can make holes in wood, countersunk and wood joints with screw and nailing. 7.6 Students can clean the workplace and equipment. 7.7 Students can maintain the record of performed job.	Woods
Lab report-2		Report on 7nd lab class	To practice.	Must be submitted to the next theoretical class.
8	8	APPLY POLISH TO WOODEN WORKS. 8.1 Select common materials used in polish on wooden surfaces. 8.2 Select sand paper of different grades. 8.3 Perform sand papering on a wooden surface. 8.4 Apply putty on a wooden surface. 8.5 Show the procedure of polish. 8.6 Apply polish along the grain of wood. 8.7 Clean workplace and equipment. 8.8 Maintain the record of performed job.	8.1 Students can select common materials used in polish on wooden surfaces. 8.2 Students can select sand paper of different grades. 8.3 Students can perform sand papering on a wooden surface. 8.4 Students can apply putty on a wooden surface. 8.5 Students can show the procedure of polish. 8.6 Students can apply polish along the grain of wood. 8.7 Students can clean their workplace and equipment. 8.8 Students can maintain the record of performed jobs.	Polish Woods
9	9	APPLY THE BASIC RULES OF FREE HAND SKETCHING OF FURNITURE. 9.1 Identify the required materials for free hand sketching 9.2 Draw working drawing of the following furniture. A. Book self B. Armless chair C. Reading table D. Wooden Stool 9.3 Maintain the record of performed job.	9.1 Students can identify the required materials for free hand sketching 9.2 Students can draw working drawings of the following furniture. A. Book self B. Armless chair C. Reading table D. Wooden Stool 9.3 Students can maintain the record of performed jobs.	
10	10	PREPARE A COMPLETE JOB AS PROJECT WORK (SIMPLE WOODEN FURNITURE) 10.1 Perform one of the following furniture with costing/ including finishing work (varnishing / Lacquer). A. Book self B. Armless chair C. Reading table D. Wooden Stool 10.2 Clean workplace equipment. 10.3 Maintain the record of performed job.	10.1 Students can perform one of the following furniture with costing/ including finishing work (varnishing / Lacquer). A. Book self B. Armless chair C. Reading table D. Wooden Stool 10.2 Students can clean workplace equipment. 10.3 Students can maintain the record of performed jobs.	

Lab report-3	Report on 8th, 9th & 10th lab class	To practice.	Must be submitted to the next theoretical class.
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