

TRAINING OBJECTIVES:

In order to reduce unemployment and poverty in the society, this curriculum is designed to train the illiterate and literate persons who are facing a lot of problem to do the work of Carpenter in the job market.

This training programme will provide opportunity to those who want to equip themselves with such knowledge and skills which will be helpful for their employment within the period of 3 months instead of working as helper for years.

Further, this Curriculum is developed by considering the requirements of local market and need of the area enabling the passouts to meet the job market to reduce the shortage of Semi Skilled workers in the area.

CURRICULUM SALIENTS:

Entry Level	Illiterate / Preferred Primary
Total Duration of Course	3-Months (12 Weeks)
Total Training Hours	400 hrs
Training Methodology	90 % Practical 10 % Theory
Instructional Media	Urdu / Local Language

CURRICULUM DELIVERY STRUCTURE

	Curriculum Delivery	Revision	Final Test
Week	12	3 Days	Last working days

SKILL PROFICIENCY DETAILS

After completion of the course the trainee must be able to: -

1. Observe all safety precautions about tools and equipment.
2. Common wood working hand tools (measuring, sawing, planing, chiseling tools), their use and maintenance.
3. Sharpening and setting of hand saws.
4. Sharpening of hand planes and chisels.
5. Use and maintenance of band saw, circular saw, jointer plane and drill press machine.
6. Identify local timber in common use and be able to distinguish good and defective timber.
7. Measure, cut and place / stack timber to the given size.
8. Use of screw, nails and hardware.
9. Sawing and planing practice.
10. Construct and use of the following wooden joints:
 - i. End lap joint
 - ii. Mortise and tenon joint / wedge mortise and tenon joint.
 - iii. Mortise and tenon joint with rabbet and groove
 - iv. Dado joint
 - v. Open pin joint
 - vi. Lapped dovetail joint
11. Estimation and marking a door frame and door.
12. Mark and prepare a job to work on machine.
13. Prepare a simple stool / table.

KNOWLEDGE PROFICIENCY DETAILS

After completion the course the trainee would have gained knowledge about: -

1. Safety precautions applicable to wood working hand tools, equipment and machine tools.
2. The common types of timber and their uses.
3. The common marking and measuring tools and their uses.
4. The common types of hand saws commonly used in wood working and procedure of saw sharpening & setting.
5. Common wood working clamping devices
6. Common types of screws, nails and hardware used in wood working.
7. Synthetics glues and its uses.
8. Common types of hand planes and their sharpening procedure and uses.
9. Common types of wood working joints, their preparation and application.
10. Common types of wood working machines.
11. Estimation of wooden door and door frame.
12. Estimation of wooden table / stool.

SCHEME OF STUDIES

Carpenter
(3 Month Course)

Sr. No	Main Topics	Theory Hrs.	Practical Hrs.	Total Hrs.
1.	Safety with wood working hand tools	2	6	8
2.	Fixing and holding devices	2	-	2
3.	Marking and layout tools	3	-	3
4.	Hand saws and practice	3	12	15
5.	Hand planes and practice	3	12	15
6.	Chisels and chiseling practice	2	6	8
7.	Wood working hammers	2	6	8
8.	Pincer and screw drivers	2	-	2
9.	Wood working files & filing practice	2	6	8
10.	Common wood and wooden defects	5	-	5
11.	Hardware used in wood work	3	-	3
12.	Drills and drilling practice	2	6	8
13.	Wood working machines and their practice (Band Saw, Circular Saw, Joints Plane, Drill press M/L)	11	36	47
14.	Sawing practice	-	18	18
15.	Planing practice	-	18	18
16.	Common wooden joints (End lap joint, Mortise & Tenon joint, Wedge mortise & Tenon Joint, Mortise & Tenon joint with groove & rabbet, Dado joint, Laped Dove Tail joint, Open Pin Joint)	-	103	103
17.	Preparing door frame and door	-	59	59
18.	Preparing Table and Stool	-	70	70
	Total: -	42	358	400

Detail of Course Contents

Carpenter
(3-Month Course)

Sr. No.	Detail Of Topics	Theory Hrs.	Practical Hrs.
1.	Safety with wood working hand tools. Introduction to safety precaution for wood working tools & equipments Fire fighting exercise	2	6
2.	Fixing & holding devices Introduction to Work bench Steel bar clamp C-clamp	2	-
3.	Marking and laying out tools Introduction and use of: Steel rule Steel tape Try square Sliding T-Bevel Marking gauge Mortise gauge Spirit level	3	-
4.	Hand saws and practice Introduction & uses of : Rip saw Cross cut saw Key hole saw Coping saw Sharpening & setting of Saws Sawing practice	3	- 6 6
5.	Hand Planes and practice Introduction and uses of: Jack plane Smoothing plane Universal plane Adjustment and sharpening of Planes Planning practice	3	 6 6
6.	Chisels and Chiseling Practice Introduction and uses of: Socket chisel Mortise chisel Sharpening of Chisels and Chiseling practice	2	6

7.	Wood working hammers Introduction and uses of: Claw hammer Mallet Cross peen hammer	2	6
8.	Pincer & screw drivers Introduction and uses of: Pincer Screw drivers Combination pliers Side cutter pliers	2	-
9.	Wood working files and filing practice Introduction and uses of: Flat file Half round file Triangular file Rasp file Filing practice	2	6
10.	Common woods and wooden defects Introduction and uses of: 10.1.1 Deodar wood 10.1.2 Kail wood 10.1.3 Partal wood 10.1.4 Sheshum wood 10.1.5 Distinguish between good and defective timber 10.1.6 Living and dead knots	5	-
11.	Hardware used in wood work Introduction and use of: Nails Rules for driving nails Screws Rules for driving screws Hinges and their fitting practice Locks and their fitting practice Handles and their fitting practice	3	
12.	Drills and drilling practice Introduction and uses of: Twist bit Auger bit Bradawl Maintenance and sharpening of a drill Drilling practice	2	6

16.	Common Wooden Joints		
	End lap joint	-	10
	Planning		
	Marking		
	Cutting		
	Assembly		
	Mortise and Tenon Joint	-	15
	Planing		
	Marking		
	Cutting		
	Mortising		
	Tenon cutting		
	Assembly		
	Wedge mortise and tenon joint	-	18
	Planing		
	Marking		
	Cutting		
	Mortising		
	Tenon		
	Wedging		
	Assembly		
	Mortise and tenon joint with groove and rabbet	-	18
	Planing		
	Marking		
	Cutting		
	Mortising		
	Tenon cutting		
	Grooving		
	Rebating		
	Assembly		
	Dado joint	-	12
	Planing		
	Marking		
	Grooving		
	Assembly		
	Lapped dovetail joint	-	15
	Planing		
	Marking		
	Cutting dovetail		
	Chiseling		
	Assembly		
	Open pin joint	-	15
	Planing		
	Marking		
	Cutting		
	Drilling		
	Assembly		

17.	Preparing door frame Estimation Sawing Planing Marking Mortising Tenon cutting Rebating Assembly	-	25
	Preparing door Estimation Sawing Planing Marking Mortising Tenon cutting Grooving Doweling Assembly	-	34
18.	To Make a Stool / Table Stool Estimation Sawing Planing Marking Mortising Tenon cutting Assembly	-	30
	To Make a Table Estimation Sawing Planing Marking Mortising Tenon cutting Gluing Assembly	-	40
Total		42	358

LIST OF MACHINERY, EQUIPMENT & TOOLS

For 25 Students

Name of trade	Carpenter
Duration	3 Month

Sr. No.	Equipment / Tools	Quantity
1.	Jack plane 18"	25 No.
2.	Smoothing Plane	25 No.
3.	Rabbet Plane	25 No.
4.	Cross Cut Saw 14"	25 No.
5.	Rip Saw 16"	25 No.
6.	Try Square 8"	25 No.
7.	Screw Driver 8"	25 No.
8.	Screw Driver 4"	25 No.
9.	Claw Hammer	25 No.
10.	Pincer	25 No.
11.	Nail Punch	25 No.
12.	Saw Set Plier	05 No.
13.	Firmer Chisel 12, 20, 25 mm	25 No. ea.ch
14.	Mortise Chisel 6 mm, 10 mm	25 No. each
15.	Divider 8"	10 No.
16.	Sliding T-Bevel	15 No.
17.	Miter Square	25 No.
18.	Mallet	25 No.
19.	Rasp cut Half Round File 10"	15 No.
20.	Rasp cut Half Round 8"	15 No.
21.	Triangular File 6"	25 No.
22.	Mortise Gauge	25 No.
23.	Marking Gauge	25 No.

24.	Oil Stone 8"	25 No.
25.	Steel Tap 3 Meter	15 No.
26.	Round File 8"	15 No.
27.	Drill 1mm to 6 mm (6 pieces set)	25 No. each
28.	Bar Clamp 6 feet	10 No.
29.	Spoke shave plane	05 No.
30.	Oil cane (plastic made)	15 No.
31.	Cross Peen Hammer 200g	25 No.
32.	Band Saw Machine 18 Inch with different width blades	1 No.
33.	Jointer Planer Machine 15 Inch with set of standard accessories	1 No.
34.	Circular Saw Machine (Table Size: 3' x 3' x 1 /2) Blade Size: - 12 Inch Max.	1 No.
35.	Drill Press Machine 4 feet column with table vice	1 No.
36.	Steel rule 12"	30 No.
37.	C clamp 18"	10 No.
38.	C clamp 24"	02 No.
39.	Pedestal grinder with grinder wheel (3/8" th x 1" Ø x 10" Ø)	01 No.
40.	Students steel cabinets (for hand Tools)	25 No.
41.	Universal plane with set of blades	02 No.
42.	Key hole saw	05 No.
43.	Spirit level	05 No.
44.	Coping saw	05 No.
45.	Combination set	02 No.
46.	Combination Plier	05 No.
47.	Portable Electric Jig Saw M/C ½ HP 220V, with set of saw blades and standard accessories	01 No.
48.	Side cutter Plier	10 No.

49.	Auger bits of different sizes 2.5mm, 3mm, 4mm 4.5mm, 5mm, 6mm (Set of 06 Pieces)	03 No.
50.	Miter Box Saw with swivel Base	02 No.
51.	Miter box saw with swivel Base (for 45° Miter cutting)	02 No.
52.	Wood working vices 10"	25 No.
53.	Hand Drill M/L 0.75 H.P with 12mm Drill cluck	02 No.
54.	Ratchet Brace	02 No.
55.	Back Saw 14"	10 No.
56.	Wooden Adze (Side)	10 No.

LIST OF MATERIALS FOR PRACTICALS

(For 03 Months Carpenter Course)

Sr.#	Consumable Material	Quantity
1.	Sheshum wood	50 ft
2.	Kail wood for door & frame	200 ft
3.	Dedoor wood for wooden joints	50 ft
4.	Glue 5 Kg	6 Nos.
5.	Nails 1", 1.5", 2", 3" (2 Kg each)	8 Kg
6.	Screw ¾", 1", 1½", 2" (2 Packets each)	12 packets
7.	Veneer Board (4" x 8' x ¾")	10 Nos.
8.	Miscellaneous	-
9.	Lubricating oil / greese	10 Ltr.
10.	Kerosene Oil	10 Ltr.
11.	Over all / apron for trainee	25 Nos.
12.	Safety shoes for trainee	25 Nos.
13.	Fire fighting safety equipment (fire extinguishers, safety car plays etc.)	1 Set

EMPLOYABILITY OF PASS-OUTS

After completion the course successfully, the students would be able to joint as wood worker technician in wood working industries. The pass-out of this course may work in the following sectors / areas and positions as technician / skilled worker: -

1. Woodworking / manufacturing industries.
2. To start their own business.
3. To work in specific field like kitchen, doors and cabinets making etc.
4. To work in the field of interior decoration like paneling and ceiling
5. To work as contractor.

LIST OF REFERENCE BOOKS

1. Principles Of Wood Technology
By
J.ULLRICH
2. Wood Workers Manual
By
ALLBERT JACKSON
3. Technical Drawing And Practical Course Wood Working Trades
By
DAVID DAY
4. Fun-E-Chobkari
By
MUHAMMAD SHAREEF ZIA

QUALIFICATION OF TEACHER / INSTRUCTOR

a) Instructor

1. Two Years Certificate Course in relevant field.
2. 6-Years experience in wood working industry

b) Carpenter / Shop Assistant

Experienced carpenter even illiterate