

## CARPENTRY COURSE – PCP (THEORY & PRACTICAL) TRAINING SCHEDULE

Total course duration (320 hrs)	
PCP (120 hrs)	Self learning (200 hrs)
Practical ( 80 hrs)	Theory ( 40 hrs)

Schedule			PCP- Topic				Learning outcome
Week	Topic	Day	Dur atio n (Hr)	Theory	Dura tion (Hr)	Practical	After the attending Learner would be able to
Week 1	Introduction of carpentry	Day 1	2 hrs	<ul style="list-style-type: none"> <li>• Introduction of carpentry.</li> <li>• Need of carpentry.</li> <li>• Introduction of raw material use in carpentry.</li> <li>• Opportunity after completing the carpentry course.</li> <li>• Application of carpentry.</li> <li>• Safety precautions during carpentry operations.</li> </ul>	3 hrs	<ul style="list-style-type: none"> <li>• Physical demonstration of carpentry raw material.</li> <li>• Physical demonstration of tools used in carpentry.</li> <li>• Display by chart about carpentry.</li> </ul>	<ul style="list-style-type: none"> <li>• Identify the job role &amp; scope of a carpenter.</li> <li>• Identify the task and responsibilities of this profession.</li> <li>• Identify various applications of carpentry .</li> <li>• Identify the various raw materials used in carpentry.</li> <li>• Identify the various tools used in carpentry.</li> </ul>
	Introduction about raw material i.e. wood/timber used in carpentry operation	Day2	2 hrs	<ul style="list-style-type: none"> <li>• General introduction about Timber.</li> <li>• Types of wood.</li> <li>• Difference between wood &amp; Ply wood.</li> <li>• Seasoning of timber.</li> <li>• Method of seasoning.</li> </ul>	3 hrs	<ul style="list-style-type: none"> <li>• Physical display and identification by observation of different types of wood pieces.</li> </ul> Display physically or by chart/video <ul style="list-style-type: none"> <li>• different defects of wood .</li> <li>• various method of seasoning of wood.</li> <li>• Timber structure.</li> </ul>	<ul style="list-style-type: none"> <li>• Identify different types of wood by observation.</li> <li>• differentiate between wood &amp; ply wood.</li> <li>• Identify the raw material used in carpentry</li> <li>• Demonstrate the knowledge of wood defects and structure of timber.</li> </ul>

Week 2	Introduction about tools/equipment used in carpentry operation	Day 1	2 hrs	<ul style="list-style-type: none"> <li>• General introduction about various tools/equipment used in carpentry operation.</li> <li>• Introduction about various machine used in carpentry.</li> <li>• Sharpening of carpentry tools.</li> <li>• Precautions during handling of tools.</li> </ul>	4 hrs	<ul style="list-style-type: none"> <li>• Physical demonstration of carpentry tools.</li> <li>• Categories marking, measuring, cutting, finishing tools.</li> <li>• Physical demonstration of sharpening of tools.</li> </ul>	<ul style="list-style-type: none"> <li>• identify various tools used in carpentry.</li> <li>• handle tools and have knowledge of safety precautions taken while handling the tools.</li> <li>• categories various carpentry tools.</li> <li>• carry out sharpening of carpentry tools &amp; other maintenance.</li> </ul>
	Introduction about machines used in carpentry operation	Day 2	2 hrs	<ul style="list-style-type: none"> <li>• Introduction about various machine used in carpentry.</li> <li>• Precautions during handling of machines.</li> </ul>	4 hrs	<ul style="list-style-type: none"> <li>• Physical demonstration of working on carpentry machine.</li> </ul>	<ul style="list-style-type: none"> <li>• handle carpentry machines and adopt appropriate safety precautions while handling the tools.</li> <li>• operate various carpentry machines.</li> </ul>
Week 3	Basic drawing	Day 1	2 hrs	<ul style="list-style-type: none"> <li>• What is drawing?</li> <li>• What is the need of drawing?</li> <li>• Basic equipment used in drawing.</li> <li>• Measuring units used in carpentry.</li> <li>• Introduction of Practice of drawing by free hand.</li> </ul>	4 hrs	<ul style="list-style-type: none"> <li>• Display of various instruments used in drawing.</li> <li>• Display of drawings of different carpentry structure.</li> <li>• Practice by learner for drawing by free hand of at least 5 different carpentry structures.</li> </ul>	<ul style="list-style-type: none"> <li>• identify various drawing instruments.</li> <li>• demonstrate the ability to use various drawing instruments.</li> <li>• draw the figure by free hand.</li> </ul>
	Basic drawing	Day 2	2 hrs	<ul style="list-style-type: none"> <li>• Introduction to practice of drawing with the help of instruments.</li> <li>• Introduction of various drawing methods.</li> </ul>	4 hrs	<ul style="list-style-type: none"> <li>• Practice by learner for drawing by instruments.</li> <li>• Plotting the drawing in isometric view.</li> <li>• Practice on orthographic projection.</li> <li>• Practical on oblique projection</li> </ul>	<ul style="list-style-type: none"> <li>• demonstrate the ability to plot the drawing in various projection i.e, oblique, isometric, orthogonal.</li> </ul>

Week 4	Basic calculations	Day1	2 hrs	<ul style="list-style-type: none"> <li>• Introduction about calculation required in carpentry operations.</li> <li>• Need of calculation.</li> <li>• Introduction to various instruments used in calculation.</li> <li>• Introduction about conversion table.</li> </ul>	4 hrs	<ul style="list-style-type: none"> <li>• Physical display and demonstration of various instrument used for calculation in carpentry operations.</li> <li>• Practice unit conversion.</li> <li>• Practice on problem for calculation.</li> </ul>	<ul style="list-style-type: none"> <li>• carry out required calculation in carpentry operation.</li> <li>• carry out conversion of 1 unit to another like inch in to mm.</li> </ul>
	Various carpentry operations	Day2	2 hrs	<ul style="list-style-type: none"> <li>• Introduction to all carpentry operation /processes.</li> <li>• Introduction to marking.</li> <li>• Introduction to measuring.</li> <li>• Introduction to cutting.</li> <li>• Introduction of planning/finishing.</li> <li>• Introduction of sharpening of tools.</li> <li>• Introduction of holding tools.</li> </ul>	4 hrs	<ul style="list-style-type: none"> <li>• Practice on carpentry tools.</li> <li>• Physical sharpening of cutting tools</li> </ul>	<ul style="list-style-type: none"> <li>• perform various carpentry operation such as -: <ul style="list-style-type: none"> <li>○ measuring</li> <li>○ marking</li> <li>○ cutting</li> <li>○ stripping</li> <li>○ planing/smoothing</li> <li>○ boring.</li> </ul> </li> <li>• perform carpentry operations in proper sequence.</li> <li>• independently work with carpentry tools.</li> <li>• carry out tools maintenance.</li> </ul>
Week 5	Various carpentry joints	Day 1	2 hrs	<ul style="list-style-type: none"> <li>• Introduction of various carpentry joints.</li> <li>• Functions and uses of carpentry joints.</li> <li>• Types and Importance of joints in carpentry operations.</li> <li>• Various terms associated with joints.</li> </ul>	4 hrs	<ul style="list-style-type: none"> <li>• Demonstration of joints physically as well as using charts/video.</li> <li>• Stepwise preparation of a timber specimen.</li> </ul>	<ul style="list-style-type: none"> <li>• identify different types of joints used in carpentry operations.</li> <li>• categories the need of various carpentry joints.</li> <li>• classify different types of joints.</li> <li>• prepare a specimen of timber.</li> </ul>
	Continue to carpentry joints	Day 2	2 hrs	<ul style="list-style-type: none"> <li>• Broad classification of joints.</li> <li>• Introduction to general precaution during</li> </ul>	4 hrs	Perform practical of Making different joints like -: <ul style="list-style-type: none"> <li>• Cross lap joint.</li> <li>• Corner joint</li> </ul>	<ul style="list-style-type: none"> <li>○ make different joints with the help of carpentry tool like -: <ul style="list-style-type: none"> <li>• cross lap joint.</li> <li>• corner joint</li> </ul> </li> </ul>

				making a joint.		<ul style="list-style-type: none"> <li>• T-joint.</li> <li>• Edge joint</li> <li>• Mortise joint.</li> <li>• Dovetail joint.etc.</li> </ul>	<ul style="list-style-type: none"> <li>• t-joint.</li> <li>• edge joint</li> <li>• mortise joint.</li> <li>• dovetail joint.</li> </ul>
Week 6	Supporting raw materials in carpentry.	Day 1	2 hrs	<ul style="list-style-type: none"> <li>• Introduction about the supporting raw material or other consuming material in carpentry.</li> <li>• Introduction about Nail, screw &amp; Nut &amp; bolts.</li> <li>• Introduction about adhesive.</li> <li>• Other consumables in carpentry operations.</li> </ul>	4 hrs	<ul style="list-style-type: none"> <li>• Collect the nails, screw, and nuts and bolts of different specifications.</li> <li>• Join two pieces of wood with the help of glue.</li> <li>• Make square, plain, oblique and mitre joints with the help of nails.</li> </ul>	<ul style="list-style-type: none"> <li>• identify different nails, screws, nut, bolts and washer.</li> <li>• use of nails, screws, nut, bolts and washer in carpentry operations.</li> <li>• identify &amp; use different adhesives in carpentry operations.</li> <li>• make joints by using nails, screw, and nuts and bolts.</li> </ul>
	Industrial visit	Day 2	2 hrs	<ul style="list-style-type: none"> <li>• Needs of industrial visit.</li> <li>• Introduction in detail about carpentry industries.</li> <li>• Various operations performed in carpentry industries.</li> <li>• Various machines/tools used in a carpentry industries/shop</li> </ul>	6 hrs	Visit of any big carpentry shop/industries where carpentry related work is done for making a wooden item.	<ul style="list-style-type: none"> <li>• estimate the cost of the equipments &amp; machinery required in welding operations.</li> <li>• acquaint with the safety precautions required in the workplace.</li> <li>• identify the scope as a welder.</li> </ul>
Week 7	Finishing work	Day 1	2 hrs	<ul style="list-style-type: none"> <li>• Introduction of finishing work</li> <li>• Need of finishing operation</li> <li>• Types of finishing work.</li> <li>•</li> </ul>	4 hrs	<ul style="list-style-type: none"> <li>• To conduct the finishing work on wood i.e.to prepares the wood surface.</li> <li>• Performing wood filling.</li> </ul>	<ul style="list-style-type: none"> <li>• identify the need of finishing work on a wood item.</li> <li>• carry out wood filling.</li> <li>• carry out complete finishing work</li> </ul>

		Day 2	2 hrs	<ul style="list-style-type: none"> <li>• Introduction of polishing.</li> <li>• Introduction of primer.</li> <li>• Introduction of paint.</li> </ul>	4 hrs	<ul style="list-style-type: none"> <li>• Perform wood polishing.</li> <li>• Perform painting on a wood item.</li> </ul>	<ul style="list-style-type: none"> <li>• perform polishing on wood item independently.</li> <li>• perform primer &amp; painting on wood item.</li> </ul>
Week 8	Estimating & costing	Day 1	2 hrs	<ul style="list-style-type: none"> <li>• Introduction of estimation and costing.</li> <li>• What is the need of cost?</li> <li>• How costing is done.</li> </ul>	4 hrs	<ul style="list-style-type: none"> <li>• Problem on –calculation of cost of a table.</li> <li>• Calculate the cost of a given window.</li> <li>• Calculate the cost of a given door.</li> </ul>	<ul style="list-style-type: none"> <li>• calculate the manufacturing cost of wood items.</li> </ul>
		Day 2	2 hrs	<ul style="list-style-type: none"> <li>• Introduction of different cost such as-direct cost, indirect cost, total cost.</li> </ul>	4 hrs	<ul style="list-style-type: none"> <li>• Calculate the cost of a door frame.</li> <li>• Calculation of cost for a simple door with paint.</li> <li>• Calculation of cost for a window.</li> </ul>	<ul style="list-style-type: none"> <li>• calculate the manufacturing cost of door frame.</li> <li>• calculate the cost of simple door with paint.</li> </ul>
Week 9	Project-1 Fabrication of dressing table of in a group of four students	Day 1	2 hrs	<ul style="list-style-type: none"> <li>• Inspection of ply board/wood for any defect.</li> <li>• Measuring and marking of ply board/wood.</li> <li>• Cutting of ply board/wood by rip saw.</li> <li>• Joining of ply board by nail &amp; with adhesive.</li> </ul>	4 hrs	<ul style="list-style-type: none"> <li>• Physical inspection of ply board/wood for any defect.</li> <li>• Physical measuring and marking on wood/ply board.</li> <li>• Cutting operation on wood/ply board by a saw.</li> <li>• Practical joining of wood with nails and adhesive.</li> </ul>	<ul style="list-style-type: none"> <li>• identify the any defect in ply board/wood.</li> <li>• take the measurement on wood/ply board.</li> <li>• hold the wood/ply board in a holding device i.e.banch vise/c-clamp etc.</li> <li>• cut the wood/ply board by the saw.</li> </ul>
	Continue of given Project-1	Day 2	2 hrs	<ul style="list-style-type: none"> <li>• Preparation the base of dressing table for varnishing.</li> <li>• Varnishing of the dressing table.</li> </ul>	4 hrs	<ul style="list-style-type: none"> <li>• Actual preparation of base for primer/varnish.</li> <li>• Actual Painting /polishing of book shelf.</li> </ul>	<ul style="list-style-type: none"> <li>• prepare the base for varnish.</li> <li>• perform the varnish on a given</li> </ul>

				<ul style="list-style-type: none"> <li>Fixing of a mirror.</li> </ul>		<ul style="list-style-type: none"> <li>Actual mirror setting if any.</li> </ul>	wooden job.
Week 10	Project-2 Fabrication of Book shelf storage of W 1600x D 450x H 1800 mm in a group of four students	Day 1	2 hrs	<ul style="list-style-type: none"> <li>Inspection of wood for any defect.</li> <li>Measuring &amp; making on wood.</li> <li>Cutting of wood by rip saw.</li> <li>Preparation of various joints with nails</li> <li>Joining of wood with adhesive</li> </ul>	4 hrs	<ul style="list-style-type: none"> <li>Physical inspection of wood for any defect.</li> <li>Physical measuring and marking on wood.</li> <li>Cutting operation on wood by a saw.</li> <li>Practical joining of wood with nails and adhesive.</li> </ul>	<ul style="list-style-type: none"> <li>identify the any defect in wood.</li> <li>take the measurement on wood/ply board.</li> <li>hold the wood/ply board in a holding device i.e.banch vise/c-clamp etc.</li> <li>cut the wood/ply board by the saw.</li> <li>fabricate various carpentry joint.</li> <li>join the wood with nail/adhesive.</li> </ul>
	Continue of given Project-2	Day 2	2 hrs	<ul style="list-style-type: none"> <li>Joining of wood for final shape of project.</li> <li>Preparation the base of book shelf storage for varnishing/primer.</li> <li>Varnishing/painting of the book shelf storage.</li> <li>Mirror fixing if any</li> </ul>	4 hrs	<ul style="list-style-type: none"> <li>Actual joining of wood for final shape.</li> <li>Actual preparation of base for primer/varnish.</li> <li>Actual Painting /polishing of book shelf.</li> <li>Actual mirror setting if any.</li> </ul>	<ul style="list-style-type: none"> <li>carry joining of wood by nails and by adhesive.</li> <li>prepare the base of item for primer or polishing.</li> <li>perform the painting or polishing of an item.</li> <li>set a mirror in an item.</li> </ul>