

**Yakima Valley Technical Skill Center
Pre-Apprenticeship Carpentry
Program Syllabus**

Entry Level:

After viewing safety videos, students will take a safety test with 100% required result in order to proceed to the next level. **Approximately 8 hours.**

After viewing videos on proper hand tool usage, and hands on demonstration by the Instructor, Students will engage in a series of hand tool competency exercises to demonstrate their ability to use the tool in a safe and proper way. The tools in the hand tool competency list include the following: **Approximately 25 hours**

Hammer: The student will be required to drive a certain amount of nails in the over head position, side position, and down position. This is a timed test with a 90% required score.

Tape Measure: The student will be required to read 26 different measurements. This is a timed test with a 90% required score.

Speed square: The student will be required to square several lines around a 2x4 with all corners matching up with in 1/32 of an inch. This will be done on a 90 degree and a 45 degree.

Framing Square: The student will be required to lay out 1 leg of a saw horse with both angles using the framing square.

Chisel: The student will be required to mortise out the top of a saw horse to allow the legs to be recessed in.

Hand saw: The student will cut 4 two inch blocks at a 90 degrees and 2 blocks at a 90 degrees which shall be checked for accuracy with in 1/32 of an inch.

Spirit level: The student will lay out a set of stairs in the plumb and level positions with an 1/8th of an inch variance allowed.

Plumb bob: The student shall plumb a 4X4 post in both directions to with in 1/16th of an inch.

Chalk box: The student will lay out a 24 inch square and a 16 inch square with 1/16th of an inch tolerance.

Drywall tools include the following, Utility knife, Drywall saw, T- square, circle cutter. The student shall install a sheet of drywall on a wall with gang boxes and water and drain pipes to be cut out to industry standards.

Saw horse: This will be the final test for all hand tool competencies. The student will receive a set of plans for a saw horse which the student shall build.

Intermediate Level:

After viewing videos on power tool usage and safety and a hands on demonstration by the Instructor, the student will engage in a series of power tool competencies to demonstrate their ability to use the tools in a safe and proper way. The tools on the competency check off list include the following: **Approximately 25 hours.**

Portable electric saw: The student shall do three exercises which shall require ripping, 90 degree cuts, 45 degree cuts, and miter cuts.

Portable electric drill: The student shall drill several holes through a 2X4 on a lay out to determine accuracy of straight drilling. Holes must line up to within 1/16th of an inch.

Portable electric screw gun: The student shall set the depth of the gun by adjusting the cone and install a sheet of dry wall. Screw pattern and depth shall meet industry standard.

Table saw: The student shall make a series of cuts on the saw which shall include cross-cuts and ripping. The student shall inform the instructor of all safety hazards associated with the table saw.

Radial Arm Saw: Safety hazards and proper usage shall be discussed followed by a hands on demonstration by the instructor. The students will then make a series of cuts to demonstrate their ability to operate the saw.

Miter Saw: The student shall build a frame out of 2 x material and case it out with a trim package which shall require 90 degree angles, 22 ½ degree angles, and 45 degree angles. All joints shall not be gapped wider than 1/32.

Router: Safety hazards and proper usage shall be discussed followed by a hands on demonstration by the instructor. The student shall then demonstrate their ability to operate the router.

Band Saw: Safety hazards and proper usage shall be discussed followed by a hands on demonstration by the instructor. The student shall then demonstrate their ability to operate the band saw.

Jig Saw: Safety hazards and proper usage shall be discussed followed by a hands on demonstration by the instructor. The student shall then demonstrate their ability to operate the jig saw.

Reciprocating Saw: Safety hazards and proper usage shall be discussed followed by a hands on demonstration by the instructor. The student shall then demonstrate their ability to operate the reciprocating saw.

Drill Press: Safety hazards and proper usage shall be discussed followed by a hands on demonstration by the instructor. The student shall then demonstrate their ability to operate the drill press.

Belt sander: Safety hazards and proper usage shall be discussed followed by a hands on demonstration by the instructor. The student shall then demonstrate their ability to operate the belt sander.

Air Brad Nailer: Safety hazards and proper usage shall be discussed followed by a hands on demonstration by the instructor. The student shall utilize the brad nailer on the miter saw competency to nail on trim package.

Nail box: This shall be the final test for all the power tool competencies. The student will receive a set of plans for a nail box which the student shall build utilizing power tools.

This completes the competencies for the entry level and intermediate level. Approximated time for both levels is 50 hours but may vary from student to student.

Advanced Level **Performance Evaluated Training System** **(P.E.T.S)**

After the student completes the entry and intermediate levels, they shall begin the (P.E.T.S) which consist of 6 categories in the carpentry industry. Those categories are listed on the P.E.T.S training grid on following page.