Kentucky CTE

Advanced Manufacturing: Wood Manufacturing: Furniture Technology 480721 (2026–2027)

Practice and perform safe shop procedures at all times. 1	1 Practice and perform safe shop procedures at all times. 1
Apply the technical math required for employment opportunities. 2	2 Apply the technical math required for employment opportunities. 2
Perform all duties with emphasis on integrity, responsibility, quality, discipline and teamwork. 3	3 Perform all duties with emphasis on integrity, responsibility, quality, discipline and teamwork. 3
Analyze a piece of furniture for “good design” qualities. 4	4 Analyze a piece of furniture for “good design” qualities. 4
Interpret working drawings and visualize the construction techniques. 5	5 Interpret working drawings and visualize the construction techniques. 5
Design a furniture project that allows for expansion and contraction of the wood using solid wood, plywood, veneer, or fra co techniques. 6	6 Design a furniture project that allows for expansion and contraction of the wood using solid wood, plywood, veneer, or frame and panel construction techniques. 6

Skip to main content

Identify, evaluate and specify traditional and contemporary construction techniques. 7	7 Identify, evaluate and specify traditional and contemporary construction techniques. 7
Calculate machine rates, set-up times, yields, and other production control elements. 8	8 Calculate machine rates, set-up times, yields, and other production control elements. 8
Set up and operate industrial woodworking equipment to perform common operations. 9	9 Set up and operate industrial woodworking equipment to perform common operations. 9
Evaluate a given production problem, formulate a plan of action and execute the plan to a satisfactory conclusion. 10	10 Evaluate a given production problem, formulate a plan of action and execute the plan to a satisfactory conclusion. 10
Develop skills related to the efficient operation of a rough mill, machine room, and assembly area. 11	11 Develop skills related to the efficient operation of a rough mill, machine room, and assembly area. 11
Fabricate a piece of furniture that lends itself to specified production techniques. 12	12 Fabricate a piece of furniture that lends itself to specified production techniques. 12
Identify equipment capabilities and determine the sequencing of operations. 13	13 Identify equipment capabilities and determine the sequencing of operations. 13
Solve first-degree algebra equations. 14	14 Solve first-degree algebra equations. 14
Ap kn	Skip to main content Apply algebraic knowledge to solve verbal problems and formulas. 15

verbal problems and formulas. 15

Solve simple plane and solid geometry problems. 16	16 Solve simple plane and solid geometry problems. 16
Prepare a surface/product for the finishing process. 17	17 Prepare a surface/product for the finishing process. 17
Identify the factors associated with the finish quality of a wood product. 18	18 Identify the factors associated with the finish quality of a wood product. 18
Differentiate between paints, varnish, lacquer, shellac, polyurethane, conversion varnish, and water-based products. 19	19 Differentiate between paints, varnish, lacquer, shellac, polyurethane, conversion varnish, and water-based products. 19
Demonstrate contemporary application techniques for both oil-based and water-based products. 20	20 Demonstrate contemporary application techniques for both oil-based and water-based products. 20
Explain the theory and operation of various coating technologies. 21	21 Explain the theory and operation of various coating technologies. 21
Disassemble, re-assemble, and adjust a conventional spray gun. 22	22 Disassemble, re-assemble, and adjust a conventional spray gun. 22
Develop a finishing schedule for a variety of finishing materials applied to a variety of substrates. 23	23 Develop a finishing schedule for a variety of finishing materials applied to a variety of substrates. 23
De reg	Skip to main content Describe EPA and OSHA regulations as they pertain to the finishing industry. 24

pertain to the finishing industry. 24

Evaluate and specify drying equipment, fluid handling equipment, and exhaust/filtering systems. 25

25 Evaluate and specify drying equipment, fluid handling equipment, and exhaust/filtering systems. 25

Perform standardized tests on finished surfaces to determine durability. 26

26 Perform standardized tests on finished surfaces to determine durability. 26