

Carpentry

Grade 10+

1 Credit

based on *Carpentry*, 7th Edition © 2021

Carpentry covers safety and accident prevention, building materials, construction lumber, hand and power tools, insulation, hardware, fasteners and adhesives, and concrete and forms building. Hundreds of illustrations show the accepted tools, materials, and practices. Information is given on how to use each tool on the job. The power tool coverage reflects actual work conditions. The use of newer materials such as metals and vinyl is covered.

LightUnit 1	LightUnit 2	LightUnit 3	LightUnit 4	LightUnit 5
Carpentry and Construction Types of construction The building trades Construction Materials The nature of wood Lumber Engineered wood products Concrete Fastening systems	Hand Tools Measuring and layout tools Fastening and prying tools Sawing and cutting tools Boring and clamping tools Smoothing tools Power Tools Portable power saws Stationary power saws Portable power drills and screwdrivers Portable power planes, routers, and sanders Pneumatic and power-actuated tools Welding and metal-cutting equipment	Construction Equipment, Job Site Safety, and Working Conditions Scaffolds, personal fall-arrest systems, and ladders Construction equipment Job site safety and working conditions Building Design and Printreading Building design, plans, and specifications Understanding the language of prints Plot plans Foundation plans Floor plans Exterior elevations Section views Detail and framing plans Door, window, and finish schedules Building codes, zoning, permits, and inspections	Survey Instruments and Operations Builder's levels, automatic levels, and transit-levels Laser levels and total station instruments Foundation and Outdoor Slab Construction Building site and foundation layout Types of foundations Forming methods and materials Foundation designs—form construction Stairway and outdoor slab forms Foundation moisture control and insect prevention	Floor, Wall, and Ceiling Frame Construction Floor framing Wall framing Ceiling framing Metal framing
LightUnit 6	LightUnit 7	LightUnit 8	LightUnit 9	LightUnit 10
Roof Frame Construction Basic roof types and roof theory Gable, gambrel, and shed roofs Hip roofs Intersecting roofs Roof trusses	Energy Conservation: Energy Auditing and Construction Methods Energy auditing and building science Thermal insulation and other insulating methods Sound control Alternate energy systems Exterior Finish Roof finish Exterior door and window frames Exterior wall finishes Decks and fencing	Interior Finish Interior wall and ceiling finish Interior doors and hardware Cabinet and countertop installation Interior trim Finish flooring	Stairway Construction Types of stairways Stairway construction Post-and-Beam Construction Post-and-beam construction Mass timber construction	Heavy Concrete Construction Foundation design for heavy construction Commercial concrete construction formwork Concrete placement for commercial construction Precast concrete systems