

	<h2>Great Oaks Construction Framing and Finishing Technologies Essential Skills Profile</h2>
	<p>This profile provides an outline of the skills required for successful completion of this career program. Additional information is located on the Great Oaks website at http://hs.greatoaks.com/essential-skills-high-school-programs/ and selecting the corresponding career program.</p>

Recommended Work Keys Scores for Construction Framing and Finishing Technologies

Applied Mathematics-3	Graphic Literacy-4
Workplace Documents-3	

*Practice tests and more information at www.act.org/workkeys

Essential Skills Needed to Successfully Complete the Program			
Rating Key:	Low = Slightly Essential	Medium = Essential	High = Very Essential
Key Vocational Factors			Rating
Visual Acuity	The ability to detect differences/details visually		High
Depth Perception	The ability to detect the physical distance/depth of objects in space and time		High
Oral Communication	The ability to express/explain ideas.		Medium
Oral Expression	The ability to verbally explain and express self in an intelligible manner so others will understand		Medium
Written Communication	The ability to communicate in a written format and record information accurately		Medium
Physical Mobility/Strength	Extended standing, bending, stooping, use of ladders, working inside and outside, and working at high levels above the ground		High
Eye-hand Coordination	The ability to use construction tools		High
Auditory Acuity	The ability to detect differences in pitch and sound		Medium
Safety Understanding	Able to comprehend hazards of working with tools, materials, equipment, and environmental conditions; able to wear personal protective equipment suitable for task		High

Worker Trait Skills	Rating
Ability to get along with others	Medium
Ability to work independently, without close supervision	Medium
Ability to work toward work including tasks of minimal interest	High
Ability to work accurately within industry standards	High
Ability to stick to assigned task to a positive/expected conclusion	High
Ability to follow and retain:	
Multi step oral instructions	Medium
Written instructions/technical manuals-multi step	Medium
Simple to complex diagram instructions	Medium
Visual models or demonstrated instructions	Medium

Ability to use tools of trade (power saws, man lift or personnel lift, levels, forklifts, blow torch, hammers, squares, power routers, ladders, etc.)	High
Ability to use numerical data (count, measure, compute, etc.) in applied setting	Medium
Ability to discriminate between objects of similar:	
Size	High
Shape	High
Color	Medium
Spatial relationship	High
Ability to organize work process/follow defined procedures	High
Coordination (eye-hand)	High
Able to sequence events or follow a sequence as necessary	High
Active Listening: Give full attention to what other people are saying, taking time to understand the points being made, asking appropriate questions and not interrupting	High
Operation Monitoring: Watching gauges, dials, or other indicators to make sure machine is working properly	High
Coordination: Adjusting actions in relation to others' actions	High

Reading Skills *See Recommended Work Keys Scores	
Math Skills *See Recommended Work Keys Scores	
Counting, recording, comparing, calculating	Whole numbers and decimals
Calculating Fractions, decimals, ratios, order of operations	Pre-Algebra and Geometry
Ratio, Algebra, Formulas, Square Roots	Geometry

Additional Abilities Required

Manual Dexterity	The ability to quickly move your hand, your hand together with your arm, or your two hands to grasp, manipulate, or assemble objects.
Arm-Hand Steadiness	The ability to keep your hand and arm steady while moving your arm or while holding your arm and hand in one position.
Multi-limb Coordination	The ability to coordinate two or more limbs (for example, two arms, two legs, or one leg and one arm) while sitting, standing, or lying down. It does not involve performing the activities while the whole body is in motion.

Knowledge Required in Construction Framing and Finishing Technologies Field

Building and Construction	Knowledge of materials, methods, and the tools involved in the construction or repair of houses, buildings, or other structures such as highways and roads.
Mechanical	Knowledge of machines and tools, including their designs, uses, repair, and maintenance

Administration and Management	Knowledge of business and management principles involved in strategic planning, resource allocation, human resources modeling, leadership technique, production methods, and coordination of people and resources.
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Additional Considerations

Inside and outside work in harsh conditions-heat, snow, rain, ice, etc.	Must be ok with heights, moving, bending, lifting, stooping and using ladders
Must understand hazards of working with tools and materials	Must wear protective equipment suitable for the task
Will get dirty	

Construction Framing and Finishing Technologies Work Activities

Follow established safety rules and regulations and maintain a safe and clean environment.	Measure and mark cutting lines on materials, using a ruler, pencil, chalk, and marking gauge.
Study specifications in blueprints, sketches, or building plans to prepare project layout and determine dimensions and materials required.	Install structures or fixtures, such as windows, frames, floorings, trim, or hardware, using carpenters' hand or power tools.
Shape or cut materials to specified measurements, using hand tools, machines, or power saws.	Build or repair cabinets, doors, frameworks, floors, or other wooden fixtures used in buildings, using woodworking machines, carpenter's hand tools, or power tools.
Verify trueness of structure, using plumb bob and level	Select and order lumber or other required materials
Arrange for subcontractors to deal with special areas, such as heating or electrical wiring work.	Maintain records, document actions, and present written progress reports.
Prepare cost estimates for clients or employers.	Work with or remove hazardous material.
Assemble and fasten materials to make frameworks or props, using hand tools and wood screws, nails, dowel pins, or glue.	Finish surfaces of woodwork or wallboard in houses or buildings, using paint, hand tools, or paneling.
Dig ditches or trenches, backfill excavations, or compact and level earth to grade specifications, using picks, shovels, pneumatic tampers, or rakes.	Tend pumps, compressors, or generators to provide power for tools, machinery, or equipment or to heat or move materials, such as asphalt.
Perform site activities required of green certified construction practices, such as implementing waste management procedures, identifying materials for reuse, or installing erosion or sedimentation control mechanisms.	Perform building weatherization tasks, such as repairing windows, adding insulation, or applying weather-stripping materials.
Perform construction laborer duties at green building sites, such as renewable energy plants or wind turbine installations.	Read plans, instructions, or specifications to determine work activities.

Control traffic passing near, in, or around work zones.	Measure materials or distances, using square, measuring tape, or rule to lay out work.
Cut or saw boards, timbers, or plywood to required size, using handsaw, power saw, or woodworking machine.	Erect forms, framework, scaffolds, hoists, roof supports, or chutes, using hand tools, plumb rule, and level.
Examine structural timbers and supports to detect decay, and replace timbers as required, using hand tools, nuts, and bolts.	Dig or direct digging of post holes and set poles to support structures.

Technology

Project management software	Operating system software
Computer aided design CAD software	

Available Certifications

NCCER Core Certification (6 Points),	CPR/First Aid Certification (1 Point)
NCCER Level 1-Construction (6 Points)	OSHA 10 Construction Industry (1 Point)
NCCER Level 2-Construction	Skid Steer Operations Certification

Possible College Credits

College Credit Plus in English, Math, Social Studies, or Science	Must be preapproved. Must pass a college course at an Ohio college or College Credit Plus class at Great Oaks.
Articulated Credit	Great Oaks has agreements with certain colleges that may give you credits for a specific degree. Possible agreements are: <ul style="list-style-type: none"> • Hocking College (Construction Management-Carpentry, up to 9 credit hours possible) • Ohio Valley ABC (Carpentry Apprenticeship, 144 class hours, 2000 hours work experience, 2nd level)

*Additional college or post-secondary education may be required in this field

Possible Career Pathways

Carpenter	Cabinetmaker
Carpentry subcontractor	Foreperson