

MASONRY

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COURSE OBJECTIVE

Students will obtain the education and skills to work as a Mason with emphasis placed on leadership skills and a strong work ethic.

COURSE DESCRIPTION

This three-year instructional program prepares students in brick, block, stone, concrete, tuck pointing, ceramic tile and artificial stone construction. Students learn the types and sizes of masonry materials, various applications for materials, blueprint reading, masonry symbols, use of measuring instruments, leveling instruments, layout and design, bonds, hand tools, masonry equipment, mortar mixing, concrete mixing, estimation, practical problems in Mathematics, preparation of material lists, masonry saw, tile saw, 14" dry cut saw, hammer drill, demolition, fireplaces, chimneys, barbecue fireplace, steps, walls, scaffold construction, etc.

COURSE TOPICS

Arches | Block | Brick (Various Types) | Brick Bonds | Concrete
Concrete Block (sizes include 4", 6", 8", & 12") | Corners | Line Work | Masonry Saw | Mortar Mixer
Piers | Plaster | Quoined Corners | Safety | Stone | Tile Saw | Veneer | Windows

REQUIRED SUPPLIES

Leather Work Boots | Masonry Gloves | Safety Glasses | Shop Shirt (Maroon Polo) | Workwear Pants (Gray)
Notebook Paper | (2) 3-Ring Binders |

TEXTBOOK

NCCER: Construction Core

NCCER: Masonry Level 1, 2 & 3

COOPERATING COMPANIES

Collier Stone Company—Carnegie, PA
Donley Brick Company—Washington, PA

Marshalltown Tools
Russell Brothers—Washington, PA

SPECIALIZED SHOP EQUIPMENT

Builder's Level | Concrete Mixers | Demolition Hammer | Dry Cut Saw with Diamond Blade
Hammer Drill | Masonry Saw | Mortar Mixers | Scaffold and Planks | Tile Saw

CERTIFICATIONS

American Ladder Institute: Articulated Ladder; Mobile Ladder; Single & Extension Ladder; Step Ladder
CareerSafe OSHA
National Center for Construction Education and Research (NCCER) Credentials

POST-SECONDARY TRAINING OPTIONS

Community College of Allegheny County—Building Construction, Estimating, Supervision or Technology
Pennsylvania College of Technology—Masonry
Williamson College of the Trades—Construction Technology, Masonry Emphasis

POTENTIAL CAREERS

Blocklayer | Bricklayer | Brickyard Sales | Concrete Flatwork | Concrete Framework | Mason Laborer
Pre-Cast Installation | Tile Setter | Tuck Pointer | Stone Mason

MASONRY SKILLS

Active Listening — Giving full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate and not interrupting at inappropriate times.

Coordination — Adjusting actions in relation to others' actions.

Mathematics — Using mathematics to solve problems.

Time Management — Managing ones' own time and the time of others

Equipment Selection — Determining the kind of tools and equipment needed to do a job.

Speaking — Talking to others to convey information effectively.

Equipment Maintenance — Performing routine maintenance on equipment and determining when and what kind of maintenance is needed.

Reading Comprehension — Understanding written sentences and paragraphs in work related documents.

Critical Thinking — Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems.

Judgment and Decision Making — Considering the relative costs and benefits of potential actions to choose the most appropriate one.

WAGES AND EMPLOYMENT TRENDS FOR MASONS

Median Wages (2020)	\$22.94 Hourly, \$47,710 Annually
Number of Jobs (2019)	302,100 Employees
Job Outlook (2019–2029)	8% (Faster Than Average)
Employment Change (2019–2029)	24,800

Source: *Occupational Outlook Handbook*