

VETERAN CARE

COURSE CATALOG

2026

**BUILDING CAREERS & CHANGING LIVES
ONE VETERAN AT A TIME**



- ☐ Instructor-facilitated training.
- ☐ Individualized career planning.
- ☐ Instructor-supervised externships providing structured practical skills training.
- ☐ Job preparedness and workforce readiness training.
- ☐ Foundational-level training and upskill training for professionals seeking career advancement.
- ☐ Training in high-demand career fields in building, construction, and manufacturing.

Veteran Care – Course Facilitation

We offer: Instructor facilitated training, Individualized career planning, Instructor – supervised externships providing structured practical skills training, job preparedness & workforce readiness training

Training Roadmap for Building, Construction & Manufacturing Programs

Enrollment Process:

- Apply online through our website: <https://veterancare.com/course-catalog>
- Upon receipt of an application, the Veteran Care team will contact the applicant to schedule an acceptance and enrollment meeting to determine program eligibility.

Upon Enrollment, students will:

- Participate in the development of individualized learning and career goals.
- Be enrolled in the appropriate academic courses.
- Receive instructor-facilitated instruction, ongoing academic support, and progress monitoring.
- Upon successful completion of required academic clock hours, earn the related certificate of completion.

Practical Skills Training / Externship:

- Practical skills training - institutionally controlled, instructor-led, and supervised by Veteran Care instructional staff.
- Externship training is conducted at approved training sites for educational purposes only and does not constitute employment or employer-paid on-the-job training.
- Veteran Care instructors facilitate, monitor, track, and evaluate all practical skills training to ensure required competencies and learning objectives are met.
- Practical skills training hours are documented and maintained by the institution in accordance with program requirements.
- Upon successful completion of both academic instruction and supervised practical skills training, participants will earn their program certificate.

Training Roadmap for Corporate Training & Professional Development Courses

Enrollment Process:

- Apply online through our website: [Veterancare.com](https://veterancare.com)
- Upon receipt of an application, the Veteran Care team will contact the applicant to schedule an acceptance and enrollment meeting to determine eligibility.

Upon Enrollment, students will:

- Participate in the development of individualized learning and professional development goals.
- Be enrolled in selected professional development courses.
- Participate in instructor-facilitated training with ongoing instructional support and progress monitoring.
- Receive certificates of completion upon successful completion of coursework & externship.

Bonus: Included at No Additional Cost in All Training Programs

All enrolled students receive access to the following instructor-led workforce readiness courses:

Winning Edge: Work Essential Skills Training, including:

- Interview preparation
- Resume development
- Elevator speech
- Personal mission statement
- Workplace communication skills
- Goal setting

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Building, Construction & Manufacturing Skilled Trade Professional Career Courses



Courses are Offered In The Following High Demand Skilled Trades:

Building Construction Technology – Level 1 & 2
Carpentry – Level 1 & 2
Electrical – Level 1 & 2
HVAC – Level 1 & 2
Landscaping – Level 1 & 2
Manufacturing – Level 1
Masonry / Bricklayer – Level 1 & 2
Painting & Finishing – Level 1 & 2
Plumbing – Level 1 & 2
Weatherization / Insulation Worker – Level 1 & 2
Welding – Level 1

Training Roadmap for Building, Construction & Manufacturing Programs

All Building, Construction, and Manufacturing programs offered by Veteran care are institutionally delivered, instructor-led training programs measured in clock hours. Programs are designed to provide structured academic instruction with an optional supervised practical skills training component.

Program Structure:

- Students complete required academic clock hours through instructor-facilitated instruction.

Practical Skills Training / Externship:

- Practical skills training is school-controlled, instructor-led, and educational in nature, and is not employer-led or employer-paid training.
- Training sites are approved by Veteran care for instructional purposes.
- Instructors supervise, monitor, document, and evaluate all practical skills training activities to ensure required competencies are achieved.
- Practical skills training hours are tracked and maintained by the institution as part of the student's program record.

Program Completion:

- Students who successfully complete all required academic instruction and their externship earn a **Certificate of Completion** issued by Veteran care.
- Certificates issued by the institution verify completion of the approved training program and do not represent licensure or employment.

Building Construction Technology (BCT)

Level 1 - Intro To Building Construction Technology - Foundational Skills

Program Length: 9

Number of Academic Hours Required: 280 hours

Externship: 320 hours

Number of Weeks Required: 34 weeks

Required Textbooks and Materials:

Carpentry, Electrical, Landscaping, Plumbing LMS Courses, OSHA 10 Guidelines Courses, Winning Edge Work Essential Skills

NCCER Construction Craft Laborer Trainee Guide, Level 1, 3rd Edition

Pre-Requisites:

GED or High School Diploma, Age 18 or older

Level 2 - Building Construction Technology

Program Length: 24 Months

Number of Academic Hours Required: 352 hours (176 per year) estimated or until course completion in addition to the 600 completed in the Level 1 pre-requisite

Externship: 4000 hours

Number of Weeks Required: 100 weeks (Level 1 externship hours may be credited)

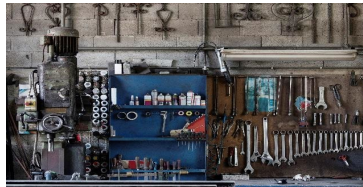
Required Textbooks and Materials:

Carpentry, Electrical, Landscaping, Plumbing LMS Courses, OSHA 10 Guidelines Construction Craft Laborer Trainee Guide, Level 2 (pearson.com)

Pre-Requisites:

GED or High School Diploma, Age 18 or older

Completion of: Building Construction Technology Level 1



Overview

Building Construction Technology (BCT) integrates foundational academic instruction & related externship in plumbing, electrical, landscaping, carpentry, and building maintenance. BCT technicians develop a broad, well-rounded skill set designed to support entry-level employment in residential and commercial construction environments. The program prepares students to perform tasks such as building partitions, repairing drywall, maintaining roofs, windows, floors, and woodwork, and supporting basic plumbing, electrical, and HVAC systems.

Students receive tablets and instructional materials to support successful completion of instructor-led coursework. Academic instruction emphasizes construction safety, building maintenance fundamentals, green technologies, and industry-relevant knowledge. Coursework is delivered through structured lessons that include instructional presentations, videos, applied learning activities, and assessments designed to measure student progress and mastery of required competencies. As a required component of the Building Construction Technology program, students participate in a structured, instructor-supervised externship designed to reinforce academic instruction through hands-on practical skills training. The externship is an

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integrated part of the program curriculum and is completed after or concurrent with required academic coursework, as outlined in the program schedule.

Externship training is institutionally controlled and coordinated by Veteran Care. Instructional staff supervise, monitor, and evaluate student progress to ensure completion of required competencies and learning objectives. Externship activities are educational in nature and are conducted at approved training sites selected for instructional purposes. Participation in the externship does not constitute employment and is not employer-paid on-the-job training. All externship hours are documented and maintained by the institution as part of the student's official training record and count toward the total program clock-hour requirement.

Building Construction Technology

Level 1 - Program Objectives: Building Construction Technology – Foundational Skills

At the successful completion of the program curriculum, students will be able to:

- Describe career opportunities in Building Construction Technology
- Understand OSHA related safety hazards in and around building structures including fall hazards, electrical, chemical, fire hazards, stairwell, landscaping hazards.
- Describe PPE used in Building Construction Technology – it's purpose, function, care and maintenance of
- Create a basic invoice for a job repair.
- Recognize common damage to masonry, walls, doors, plumbing, electrical sources in buildings.
- Describe common repairs for residential plumbing including toilets, sinks, shower, pipes
- Describe common repairs for drywall
- Describe common repairs for HVAC including thermostat, refrigeration and motor troubleshooting
- Describe common landscaping issues including lawn, shrub and tree maintenance

Level 2 - Program Objectives: Building Construction Technology

At the successful completion of the program curriculum, students will be able to:

- Read blueprints for buildings, understand site plans, and building layout.
- Work with drawings for residential structures.
- Establish project costs from a set of work drawings.
- Understand OSHA related safety hazards in and around building structures including fall hazards, electrical, chemical, fire hazards, stairwell, landscaping hazards.
- Communicate effectively malfunctions in equipment, repairs needed, materials required to complete work with supervisors, colleagues, and customers.
- Create an invoice for common residential and commercial repairs
- Explain the benefits of properly maintaining properties – both residential and commercial
- Explain various troubleshooting for plumbing, HVAC, carpentry, door, window, roof, landscaping repairs
- Understand the use, care and maintenance of various hand and power tools
- Determine materials and tools needed for various repairs
- Determine time allotments for various repairs
- Estimate repair and new work including materials, tools and manpower
- Set up and maintain a safe job site / work site
- Recognize and avoid work site hazards

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Level 1 – Course List: Building Construction Technology – Plumbing Academic Training Foundational Skills

- About Plumbing Careers
- Tools for Plumbers
- Welcome and Introduction- Safety
- Common Plumbing and Backflow Preventers
- Faucet Leaks and Repairs
- Dual Flush Toilet

Level 2 – Course List: Building Construction Technology – Plumbing Academic Training

- Electric and Gas Water Heaters
- Benefits of Low Flow Plumbing
- Black Iron and Galvanized Pipe
- Calculating the Slope of Drainage Pipes
- Common Toilet Problems
- Cutting and Joining Cast Iron Pipe
- Cutting and Joining Copper Tubing

Building Construction Technology

Level 1 – Course List: Building Construction Technology – Electrical Academic Training

- Electrical Service
- Electrical Safety
- Practical Skills Assignments
- Electrical Careers in Residential, Commercial, and Industrial
- Residential Work
- Tools and PPE
- Overview of the Electrical Trade
- Arc Flashes
- Cabling and Conductors
- Coupling and Bushings
- Current and Electric Symbols
- Electrical Diagrams
- Electrical Vocational training Vocabulary
- Arc Blast
- Circuits
- Grounding vs. Grounded

Level 2 – Course List: Building Construction Technology – Electrical Academic Training

- Junction Box, Pull box and Conduit Box
- Electrical Assessment and Review
- Conduit
- Conductors Used in Commercial Buildings
- Electrical Safety Level 2
- Electrical Symbols
- Electrical Testing Devices

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- Electrical Theory
- Electrical Tools for Measurement
- Electrical Wiring
- Grounding and Insulation
- Lockout/Tagout
- NEC Codes
- NEC Electrical Terms
- NFPA 70 & 70B
- Ohm's Law
- Open Circuits and Direct Circuits
- Practical Skills Level 1
- Raceway System
- Renewable Energy, GCFI, Circuits
- Rough In
- Substation
- Review and Test 2
- Mid Student Exam
- Hot Sticks and Fuse Pullers
- Hand Bending

Building Construction Technology

Level 1 – Course List: Building Construction Technology – Landscaping Academic Training

- Mowers
- Concrete, Mortar, Lumbar
- Edging
- Common Landscaping Tools- Pruners and Weed Whackers
- Pests on the Job
- Working in the Heat
- Landscaping Careers
- First Aid
- Landscaping Hand Tools
- PPE for Landscapers

Level 2 – Course List: Building Construction Technology – Landscaping Academic Training

- Mowing Basics
- Mulch
- Landscaping Power Tools and Equipment
- Landscaping Vocabulary
- How to Plant and Care for Shrubs

Level 1 – Course List: Building Construction Technology – Carpentry Academic Training

- Carpentry Math 101
- A Day in the Life of a Carpenter
- Ceiling Framing
- Floor Framing System

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- Particle Board vs. Plywood
- Nail Guns and Construction Lasers
- Wall Framing System
- PPE for Carpenters
- Wall Layout Vocabulary

Level 2 – Course List: Building Construction Technology – Carpentry Academic Training

- Jointer and Planer
- Circular Saw and Table Saw
- Installing Exterior Doors and Windows
- Router and Miter Saws
- Saws- Reciprocating and Radial Arm
- Band Saw Tools Safety
- Building a Concrete Form
- Concrete, Mortar, and Lumbar
- Installing Interior Doors and Trim
- Installing Insulation and Wallboard
- Installing Roof Shingles
- Installing Siding

Building Construction Technology

Level 1 & 2 - OSHA 10 Guidelines - Safety In The Workplace

- Stairway Safety
- Flammable Liquid Storage
- Step Ladder Safety
- Manual Lifting
- Safety First Back Injury and Prevention
- Blood Borne Pathogen Safety
- Accidents in the Workplace
- Confined Space
- Repetitive Motion Prevention
- Ear Protection
- Eye Protection
- Head Protection
- Respiratory Protection
- Fall Protection for HVAC Professionals
- Fire Hazards
- Safety First- First Aid
- Job Site Housekeeping and Tidiness
- Motor Vehicle Safety
- Safety First- PPE
- Working in the Cold
- Working in the Heat
- Chemical Hazards
- Horseplay on the Job

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Level 1 - Building Construction Technology

Winning Edge Work Essential Skills – Job Preparedness

- Work Essential Skills Punctuality
- The Power of a Positive Attitude
- Sharpen the Saw
- Interview Success
- Work Essential Skills Vocabulary
- Personal Mission Statement
- Resumes
- Goal Setting

Level 2 - Building Construction Technology

Winning Edge Work Essential Skills – Retention

- Skills that Separate You from the Rest
- Whatever It Takes
- Who's the Boss?
- Time Management
- Synergy
- Think Win/Win
- Be Proactive
- Effective Communication
- Elevator Speech

Carpentry

Level 1 - Intro To Carpentry - Foundational Skills

Program Length: 9 Months

Number of Academic Hours Required: 280 hours

Externship: 320 hours

Number of Weeks Required: 34 weeks

Required Textbooks and Materials:

Carpentry Remote Courses, OSHA 10 Guidelines, Winning Edge: Work Essential Skills

[NCCER Carpentry Level 1 Trainee Guide, 5th Edition](#)

Pre-Requisites:

GED or High School Diploma, Age 18 or older

Level 2 - Carpentry

Program Length: 24 Months

Number of Academic Hours Required: 352 hours (176 per year)

Externship: 4000 total hours (Level 1 externship hours may be credited)

Number of Weeks Required: 100 Weeks

Required Textbooks and Materials:

[Carpentry Trainee Guide, Level 2 \(pearson.com\)](#)

[Carpentry Trainee Guide, Level 3 \(pearson.com\)](#)

OSHA 10 Guidelines

Pre-Requisites:

GED or High School Diploma, Age 18 or older

Completion of: Building Construction Technology Level 1



Overview

Carpentry is a high-demand skilled trade that involves measuring, material preparation, layout, cutting, shaping, and installation of wood-based structures. The Carpentry program provides foundational academic instruction designed to prepare students for entry-level employment in residential and commercial construction environments. Instruction emphasizes carpentry techniques, tool usage and safety, material handling, and the physical demands of the trade, while also reinforcing professionalism and customer-focused practices.

Students receive tablets and instructional materials to support successful completion of instructor-led coursework. Academic instruction includes carpentry fundamentals, safety practices, installation techniques, and an overview of daily responsibilities within the carpentry trade. Coursework is delivered through structured lessons that include instructional presentations, videos, applied learning activities, and assessments designed to evaluate student progress and mastery of required competencies.

As a required component of the Carpentry program, students participate in a structured, instructor-supervised externship designed to reinforce academic instruction through hands-on practical skills training. The externship is an integrated part of the program curriculum and is completed in accordance with the approved program schedule. Externship training is institutionally controlled and coordinated by Veteran Care. Instructional staff supervise, monitor, and evaluate student progress to ensure completion of required competencies and learning objectives. Externship activities are educational in nature and do not constitute employment or employer-paid on-the-job training. All externship hours are documented and maintained by the institution as part of the student's official training record and count toward the total program clock-hour requirement.

Carpentry

Level 1 - Program Objectives: Carpentry – Foundational Skills

At the successful completion of the program curriculum, students will be able to:

Identify and adhere to health and safety practices required of carpentry.

- Explain carpenter career opportunities.
- Explain basic framing techniques.
- Identify carpentry hand tools and their purpose.
- Explain OSHA 10 safety guidelines in relation to working as a carpenter.
- Identify carpentry saws and electric / power tools (miter saw, circular saw, table saw, router, radial arm saw).
- Communicate efficiently with supervisors and other carpenters.
- Understand the basics of blue print reading.
- Demonstrate understanding of various fasteners and screws and their applications.
- Demonstrate ability for related mathematics computation.
- Understands the use of tape measures including how to measure with fractions.

Level 2 - Program Objectives: Carpentry

At the successful completion of the program curriculum, students will be able to describe and demonstrate a good understanding of the following:

- Accurately determine the tools and materials needed for various projects
- Calculate costs of materials for projects
- Budget for more than one project at a time
- Use, maintain, clean and properly store tools and materials
- Identify and adhere to health and safety practices required of carpentry.
- Frame basic doorways, windows
- Install subfloors
- Understand blue prints for residential and commercial building structures for carpentry
- Describe how to properly install subfloors including materials and tools needed
- Safely manage work sites taking OSHA 10 guidelines into account
- Accurately measure projects to determine materials needed
- Assist with maintaining accurate project documents and use computer technologies or blueprints to support building construction.
- Apply basic principles of technical mathematics in carpentry building.
- Evaluate wood for imperfections
- Identify wood and materials appropriate for various projects and explain the properties of each
- Select and safely operate hand tools to complete carpentry construction.
- Assist and or explain proper preparation of materials according to building construction within carpentry.

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- Explain carpenter career opportunities.
- Explain basic framing techniques.
- Assist with maintaining accurate project documents and use computer technologies or blueprints to support building construction.
- Select and safely operate hand tools to complete carpentry construction.

Carpentry

Level 1 – Course List: Carpentry – Foundational Skills

- Carpentry Tools: Jointer and Planer Saws
- Carpentry Tools: Circular Saw and Table Saw
- Carpentry Basics: Installing Exterior Doors and Windows
- Carpentry Tools: Router and Miter Saws
- Carpentry Tools: Saws- Reciprocating and Radial Arm
- Carpentry Tools: Band Saw Tools Safety
- Carpentry Basics: Building a Concrete Form
- Carpentry Math 101
- A Day in the Life of a Carpenter
- Particle Board vs. Plywood
- Nail Guns and Construction Lasers
- Wall Framing System
- PPE for Carpenters
- Wall Layout Vocabulary

Level 2 – Course List: Carpentry

- Ceiling Framing
- Floor Framing System
- Installing Interior Doors and Trim
- Installing Insulation and Wallboard
- Installing Roof Shingles
- Installing Siding
- Installing sub floors

Level 1 & 2 - OSHA 10 Guidelines - Safety In The Workplace

- Stairway Safety
- Flammable Liquid Storage
- Step Ladder Safety
- Manual Lifting
- Safety First Back Injury and Prevention
- Blood Borne Pathogen Safety
- Accidents in the Workplace
- Confined Space
- Repetitive Motion Prevention
- Ear Protection
- Eye Protection
- Head Protection
- Respiratory Protection
- Fall Protection for HVAC Professionals

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- Fire Hazards
- Safety First- First Aid
- Job Site Housekeeping and Tidiness
- Motor Vehicle Safety
- Safety First- PPE
- Working in the Cold
- Working in the Heat
- Chemical Hazards
- Horseplay on the Job

Carpentry

Level 1 - Carpentry - Winning Edge Work Essential Skills – Job Preparedness

- Work Essential Skills Punctuality
- The Power of a Positive Attitude
- Sharpen the Saw
- Interview Success
- Work Essential Skills Vocabulary
- Personal Mission Statement
- Resumes
- Goal Setting

Level 2 - Carpentry - Winning Edge Work Essential Skills – Retention

- Skills that Separate You from the Rest
- Whatever It Takes
- Who's the Boss?
- Time Management
- Synergy
- Think Win/Win
- Be Proactive
- Effective Communication
- Elevator Speech

Electrical

Level 1 - Intro To Electrical - Foundational Skills

Program Length: 9 Months

Number of Academic Hours Required: 280 hours

Externship: 320 hours

Number of Weeks Required: 34 Weeks

Required Textbooks and Materials:

Carpentry Remote Courses, OSHA 10 Guidelines, Winning Edge: Work Essential Skills
[NCCER Electrical, Level 1, Tenth Edition](#)

Pre-Requisites:

GED or High School Diploma, Age 18 or older

Level 2 - Electrical

Program Length: 36 Months

Number of Academic Hours Required: 510 hours - 170 per year

Externship: 6000 total hours (Level 1 on the job learning hours may be credited)

Number of Weeks Required: 150 weeks estimated or until course completion

Required Textbooks and Materials:

OSHA 10 Guidelines

[Electrical, Level 2 \(pearson.com\)](#)

[Carpentry Trainee Guide, Level 3 \(pearson.com\)](#)

Pre-Requisites:

GED or High School Diploma, Age 18 or older

Completion of: Building Construction Technology Level 1



Overview

Electrical work is essential to the safe operation of residential, commercial, and industrial environments. Electricians install, connect, maintain, and test electrical systems including power distribution, lighting, and basic security components. The Electrical program provides foundational academic instruction designed to prepare students for entry-level employment in the electrical trade, with an emphasis on safety, proper installation techniques, and adherence to electrical codes and industry standards. Students receive tablets and instructional materials to support successful completion of instructor-led coursework. Academic instruction covers electrical theory, workplace and electrical safety, tool usage, electrical boxes and components, wiring methods, and interpretation of electrical codes, symbols, and diagrams. Coursework is delivered through structured lessons that include instructional presentations, videos, applied learning activities, and assessments designed to evaluate student progress and mastery of required competencies.

As a required component of the Electrical program, students participate in a structured, instructor-supervised externship designed to reinforce academic instruction through hands-on practical skills training. The externship is an integrated part of the program curriculum and is completed in accordance with the approved program schedule. Externship training is institutionally controlled and coordinated by Veteran Care. Instructional staff supervise, monitor, and evaluate student progress to ensure completion of required competencies and learning objectives. Externship activities are educational in nature and do not constitute employment or employer-paid on-the-job training. All externship hours are documented and maintained by the institution as part of the student's official training record and count toward the total program clock-hour requirement.

Level 1 - Program Objectives: Electrical – Foundational Skills

At the successful completion of the program curriculum, students will be able to:

- Describe various career opportunities for electricians
- Identify common electrical hazards such as electrical shock, fires, explosions, and electrocution.
- Recognize potential electrical hazards present in the work environment.
- Point out possible solutions to implement to reduce or eliminate the risk of injury associated with electrical work.
- Understand importance of PPE
- Identify common electrical tools and materials for repair and installation.
- Understand the principles of electricity.
- Identify various circuits – closed, open, multi.
- Understand basics of electrical current.
- Identify common electrical functions for residential and commercial structures

Level 2 - Program Objectives: Electrical

At the successful completion of the program curriculum, students will be able to:

- Understand how to read and follow the National Electrical Code.
- Understand important electrical processes including PPE wearing, Lock Out / Tag Out, and NEC Code relevance.
- Identify common electrical tools and materials for repair and installation.
- Understand the principles of electricity.
- Identify various circuits – closed, open, multi.
- Understand electrical current.

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- Demonstrate broad knowledge of electrical and electronic engineering technology practices to support design and installation.
- Apply basic mathematical skills for technical purposes.
- Identify the electrician vocational training requirements and responsibilities.
- Read common construction drawings and plans.
- Apply electrical safety practices and wear personal protective equipment.
- Demonstrate understanding of electrical and circuit theory, measurements, and knowledge of schematic tasks.
- Describe how to properly bend, cut, ream, and thread conduit.
- Explain the use various types of electrical test equipment.
- Understand how electrical services works within residential and commercial structures.
- Identify safety measures vital to electricians' daily safety including PPE, rubber handled tools, testing meters, lock out tag out procedures, trip hazards, following NEC Code and proper wiring.

Level 1 - Course List: Electrical – Foundational Skills

- Introduction to Electricity and Electrical Concepts
- Electrical Careers
- Electrical Protective Equipment (PPE)
- Electric Power Generation, Transmission, and Distribution
- Electrical Circuits and Distribution Boards
- Battery Charging and Changing
- Hazard Recognition
 - Contact with Power Lines
 - Lack of Ground-Fault Protection
 - Path to Ground Missing or Discontinuous
 - Equipment not used in manner prescribed
 - Improper use of extensions and flexible cords
- Possible Solutions
 - Controlling Electrical Hazards
 - Lockout-Tagout Training
 - Survival Guide for Electricians
 - Preventing Falls and Electrocutions
 - Preventing Fatalities of Workers who Contact Electrical Energy
 - Working Safely Near Overhead Power Lines

Level 2 – Course List: Electrical

- Arc Flashes
- Cabling and Conductors
- Coupling and Bushings
- Current and Electric Symbols
- Electrical Diagrams
- Electrical Vocational training Vocabulary
- Arc Blast
- Junction Box, Pull box and Conduit Box
- Electrical Assessment and Review
- Circuits
- Conduit
- Conductors Used in Commercial Buildings
- Electrical Safety Level 2

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- Electrical Symbols
- Electrical Testing Devices
- Electrical Theory
- Electrical Tools for Measurement
- Electrical Wiring
- Grounding vs. Grounded
- Grounding and Insulation
- Lockout/Tagout
- NEC Codes
- NEC Electrical Terms

Electrical

Level 2 - Electrical

- NFPA 70 & 70B
- Ohm's Law
 - Open Circuits and Direct Circuits
 - Practical Skills Level 1
 - Raceway System
 - Renewable Energy, GCFI, Circuits
 - Rough In
 - Substation
 - Review and Test 2
 - Mid Student Exam
 - Hot Sticks and Fuse Pullers
 - Hand Bending
 - Electrical Service
 - Electrical Safety
 - Practical Skills Assignments
 - Electrical Careers in Residential, Commercial, and Industrial
 - Residential Work

Level 1 & 2 - OSHA 10 Guidelines - Safety In The Workplace

- Stairway Safety
- Flammable Liquid Storage
- Step Ladder Safety
- Manual Lifting
- Safety First Back Injury and Prevention
- Blood Borne Pathogen Safety
- Accidents in the Workplace
- Confined Space
- Repetitive Motion Prevention
- Ear Protection
- Eye Protection
- Head Protection
- Respiratory Protection
- Fall Protection for HVAC Professionals
- Fire Hazards
- Safety First- First Aid

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- Job Site Housekeeping and Tidiness
- Motor Vehicle Safety
- Safety First- PPE
- Working in the Cold
- Working in the Heat
- Chemical Hazards
- Horseplay on the Job

Electrical

Level 1 - Electrical - Winning Edge Work Essential Skills – Job Preparedness

- Work Essential Skills Punctuality
- The Power of a Positive Attitude
- Sharpen the Saw
- Interview Success
- Work Essential Skills Vocabulary
- Personal Mission Statement
- Resumes
- Goal Setting

Level 2 - Electrical - Winning Edge Work Essential Skills – Retention

- Skills that Separate You from the Rest
- Whatever It Takes
- Who's the Boss?
- Time Management
- Synergy
- Think Win/Win
- Be Proactive
- Effective Communication
- Elevator Speech

HVAC

Level 1 - HVAC Heating, Ventilation & Air Conditioning - Foundational Skills

Program Length: 9 Months

Number of Academic Hours Required: 280 hours

Externship: 320 hours

Number of Weeks Required: 34 weeks

Required Textbooks and Materials:

Carpentry Remote Courses, OSHA 10 Guidelines, Winning Edge: Work Essential Skills

[NCCER Heating, Ventilating, and Air Conditioning Trainee Guide, Level 1 NCCER](#)

Pre-Requisites:

GED or High School Diploma, Age 18 or older

Level 2 - HVAC Heating, Ventilation & Air Conditioning

Program Length: 36 Months

Number of Academic Hours Required: 510 hours (170 per year)

Externship: 6000 hours (Level 1 on the job learning hours may be credited)

Number of Weeks Required: 150 weeks

Required Textbooks and Materials:

OSHA 10 Guidelines

[HVAC, Level 2 \(pearson.com\)](#)

[HVAC, Level 3 \(pearson.com\)](#)

Pre-Requisites:

GED or High School Diploma, Age 18 or older

Completion of: Building Construction Technology Level 1



Overview

HVAC, which stands for Heating, Ventilation, and Air Conditioning, focuses on the control of temperature, ventilation, and indoor air quality within residential and commercial structures. The HVAC program provides foundational academic instruction designed to prepare students for entry-level employment as HVAC technicians. Instruction emphasizes proper installation, maintenance, and repair of HVAC systems, along with professionalism, customer awareness, and safe work practices.

Students receive tablets and instructional materials to support successful completion of instructor-led coursework. Academic instruction includes HVAC fundamentals, system components, equipment testing, basic diagnostics, electrical concepts related to HVAC systems, applied trade mathematics, and safety practices specific to the HVAC field. Coursework is delivered through structured lessons that include instructional presentations, videos, applied learning activities, and assessments designed to evaluate student progress and mastery of required competencies.

As a required component of the HVAC program, students participate in a structured, instructor-supervised externship designed to reinforce academic instruction through hands-on practical skills training. The externship is an integrated part of the program curriculum and is completed in accordance with the

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approved program schedule. Externship training is institutionally controlled and coordinated by Veteran Care. Instructional staff supervise, monitor, and evaluate student progress to ensure completion of required competencies and learning objectives. Externship activities are educational in nature and do not constitute employment or employer-paid on-the-job training. All externship hours are documented and maintained by the institution as part of the student's official training record and count toward the total program clock-hour requirement.

HVAC – Heating, Ventilation & Air Conditioning

Level 1 - Program Objectives: HVAC – Foundational Skills

At the successful completion of the program curriculum, students will be able to:

- Describe basic HVAC knowledge
 - HVAC industry
 - HVAC unit processes
 - Basic HVAC vocabulary
 - Key components of customer service calls for residential
 - Identify HVAC tools and materials
 - Understand principles of how HVAC systems operate
 - Describe basic trouble shooting of residential HVAC units
 - Explain the mechanics of how HVAC systems operate in both residential and commercial settings.
 - Describe the basics for installing new or replacement HVAC systems.
 - Identify common factors that lead to HVAC repair calls.

Level 2 - Program Objectives: HVAC

At the successful completion of the program curriculum, students will be able to:

- Understand the purpose of ductwork to carry proper airflow into conditioned areas. Identify various forms and applications of duct work.
- Write and comprehend cost estimates.
- Perform heating and cooling load calculations.
- Identify HVAC equipment and system components, their functions, and their relationship within the system.
- Demonstrate an understanding of the principals of electricity and their applications in HVAC systems.
- Demonstrate an understanding of the refrigeration cycle and airflow process.
- Read and interpret blueprints, diagrams, and vocabulary used in the HVAC field.
- Work responsibly and follow all safety guidelines specific to HVAC.
- Understand the difference between refrigeration and air conditioning.
- Identify main components of HVAC systems.
- Identify safety hazards that HVAC technicians may experience.
- Be able to recognize proper moving and storage of HVAC units.
- Apply OSHA 10 safety guidelines during on the job learning internship including ladder, motor vehicle, electrical and hand tool safety as well as proper lifting techniques.
- Understand how humidity affects HVAC performance.
- Retail refrigeration services troubleshooting

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Level 1 - Course List: HVAC Basics – Foundational Skills

- Electric Motor and Motor Control Center Operation
- HVAC Materials: Concrete and Lumber
- HVAC Career Opportunities
- Reading Blueprints
- Troubleshooting and Contactor Troubleshooting
- Getting to Know HVAC Units
- Refrigeration vs. Air Conditioning
- Types of Ductwork
- Refrigeration and How AC Units Work
- Tips for Homeowners and Businesses- Keep Units Running Well
- Measurement Tools
- HVAC Vocabulary
- Area and Perimeter
- Decimals
- Math and Formulas Guide
- Finding Volume
- Math for Skilled Trade Professionals Vocabulary
- Tape Measures

HVAC – Heating, Ventilation & Air Conditioning

Level 2 - Course List: HVAC

- Geothermal Energy and Heat Pumps
- Vacuum Pump
- Reading Gauges
- Troubleshooting an Evaporator
- Manual J Load Calculation
- Electrical Safety
- Conductors and Cables
- Grounding and GFCI
- Lockout/Tagout
- HVAC Electrical Tools and PPE
- Electrical Wireways, Raceways and Fittings
- HVAC PACT: Green Technology- Energy Loss and Prevention
- HVAC PACT: Green Technology- Safety Risk Factors
- HVAC PACT: Green Technology- 10 Ways Buildings Can Build Sustainability
- HVAC PACT: Green Technology- Building/Construction and Manufacturing
- Multimeter
- Hand Tools- The Basics
- Thermometer
- Portable Power Tools and Power Drill
- Portable Belt Sander, Portable Grinder and Drill Press
- Retail refrigeration

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Level 1 & 2 – HVAC - OSHA 10 Guidelines - Safety In The Workplace

- Stairway Safety
- Flammable Liquid Storage
- Step Ladder Safety
- Manual Lifting
- Safety First Back Injury and Prevention
- Blood Borne Pathogen Safety
- Accidents in the Workplace
- Confined Space
- Repetitive Motion Prevention
- Ear Protection
- Eye Protection
- Head Protection
- Respiratory Protection
- Fall Protection for HVAC Professionals
- Fire Hazards
- Safety First- First Aid
- Job Site Housekeeping and Tidiness
- Motor Vehicle Safety
- Safety First- PPE
- Working in the Cold
- Working in the Heat
- Chemical Hazards
- Horseplay on the Job

Level 1 - HVAC - Winning Edge Work Essential Skills – Job Preparedness

- Work Essential Skills Punctuality
- The Power of a Positive Attitude
- Sharpen the Saw
- Interview Success
- Work Essential Skills Vocabulary
- Personal Mission Statement
- Resumes
- Goal Setting

Level 2 - HVAC - Winning Edge Work Essential Skills – Retention

- Skills that Separate You from the Rest
- Whatever It Takes
- Who's the Boss?
- Time Management
- Synergy
- Think Win/Win
- Be Proactive
- Effective Communication
- Elevator Speech

Landscaping

Level 1 - Landscaping - Foundational Skills

Program Length: 9 Months

Number of Academic Hours Required: 280 hours

Externship: 320 hours

Number of Weeks Required: 34 weeks

Required Textbooks and Materials:

Carpentry Remote Courses, OSHA 10 Guidelines, Winning Edge: Work Essential Skills

[NCCER Your Role in the Green Environment Trainee Guide, Third Edition](#)

Pre-Requisites:

GED or High School Diploma, Age 18 or older

Level 2 - Landscaping

Program Length: 24 Months

Number of Academic Hours Required: 352 hours (176 per year)

Externship: 4000 total hours (Level 1 on the job learning hours may be credited)

Number of Weeks Required: 100 weeks

Required Textbooks and Materials:

OSHA 10 Guidelines

[Landscaping, 8th Edition - 9781337403429 - Cengage](#)

Pre-Requisites:

GED or High School Diploma, Age 18 or older

Completion of: Building Construction Technology Level 1



Landscaping

Overview

Landscaping is a skilled trade focused on the design, installation, and maintenance of outdoor environments in residential and commercial settings. The Landscaping program provides foundational academic instruction designed to prepare students for entry-level employment in the landscaping and grounds maintenance field. Instruction emphasizes plant care, mowing and edging techniques, equipment operation, site maintenance, environmental awareness, and safe work practices, including working in outdoor and heat-exposed environments. Students receive tablets and instructional materials to support successful completion of instructor-led coursework. Academic instruction includes landscaping fundamentals, safety procedures, hand and power tool operation, equipment maintenance, and an overview of daily responsibilities within the landscaping profession. Coursework is delivered through structured lessons that include instructional presentations, videos, applied learning activities, and assessments designed to evaluate student progress and mastery of required competencies.

As a required component of the Landscaping program, students participate in a structured, instructor-supervised externship designed to reinforce academic instruction through hands-on practical skills training. The externship is an integrated part of the program curriculum and is completed in accordance with the approved program schedule. Externship training is institutionally controlled and coordinated by Veteran Care. Instructional staff supervise, monitor, and evaluate student progress to ensure completion of required competencies and learning objectives. Externship activities are educational in nature and do not constitute employment or employer-paid on-the-job training. All externship hours are documented and maintained by the institution as part of the student's official training record and count toward the total program clock-hour requirement.

Level 1 - Program Objectives: Landscaping – Foundational Skills

At the successful completion of the program curriculum, students will be able to:

- Understand how landscaping can enhance the aesthetic appeal of an area.
- Explain how landscaping can increase a building's property value.
- Identify concrete and architectural creations and describe how to blend them into the natural scenery.
- Explain how landscaping can provide customers with privacy by shielding the public from selected areas.
- Identify common landscaping tools and explain their usage.
- Demonstrate understanding of OSHA 10 guidelines for landscapers.
- Understand landscape basic terminology.
- Identify common landscaping materials and tools and explain their usage, safety and proper handling / storage of them

Level 2 - Program Objectives: Landscaping

At the successful completion of the program curriculum, students will be able to:

- Explain basic first aid for common landscape injuries such as cuts, scrapes, minor falls and trips, bee stings, snake bites, heat exposure, ladder and motor vehicle safety.
- Explain how landscaping benefits the community by reducing noise and environmental pollution.
- Understand soil erosion and identify ways to improve and conserve natural resources by reducing soil erosion.

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- Understand ways to reduce waste of natural resources and environmental contamination by using locally adapted plant materials.
- Identify appropriate methods of design inquiry and problem-solving processes to produce creative solutions to identified problems.
- Measure areas for landscape materials including gardening beds, mulch and other ground cover and grass /seeded areas.
- Describe how to properly plant shrubs and trees.
- Determine materials and tools needed for various landscaping projects and be able to provide work estimates for completion.

Landscaping

Level 1 - Course List: Landscaping – Foundational Skills

- Introduction to Landscaping
- Landscaping Careers
- All About Mowers
- Concrete, Mortar, Lumbar
- Proper Edging Techniques
- Common Landscaping Tools- Pruners and Weed Whackers
- Pests on the Job
- Working in the Heat
- Landscaping Careers
- First Aid
- Landscaping Hand Tools
- Mowing Basics
- Mulch
- Landscaping Power Tools and Equipment
- Landscaping Vocabulary
- PPE for Landscapers
- How to Plant and Care for Shrubs

Level 2 - Course List: Landscaping

- The Principles of Design
- Design Principles: Balance, Focalization of Interest, Simplicity, Proportion, Unity
- Applying Design Principles
- Architecture & Plant Materials
- Hardscape Materials
- Evergreens – Needled & Broadleaved
- Deciduous Shrubs & Trees
- Trailing Groundcovers
- Hardscape Materials
- Plant labels
- Diagrams and Drawings within the design process
- Understand the site
- Preparing a base map
- Plant selection
- Hardiness factors
- Heat zone Considerations
- The uses & limitations of flowers in the landscape

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- Flower beds and Flower bed design
- Walks, Drives & Stepping Stones

Level 1 & 2 - OSHA 10 Guidelines – Landscaping - Safety In The Workplace

- Stairway Safety
- Flammable Liquid Storage
- Step Ladder Safety
- Manual Lifting
- Safety First Back Injury and Prevention
- Blood Borne Pathogen Safety
- Accidents in the Workplace
- Confined Space
- Repetitive Motion Prevention
- Ear Protection
- Eye Protection
- Head Protection
- Respiratory Protection
- Fall Protection for HVAC Professionals
- Fire Hazards
- Safety First- First Aid
- Job Site Housekeeping and Tidiness
- Motor Vehicle Safety
- Safety First- PPE
- Working in the Cold
- Working in the Heat
- Chemical Hazards
- Horseplay on the Job

Level 1 - Landscaping - Winning Edge Work Essential Skills – Job Preparedness

- Work Essential Skills Punctuality
- The Power of a Positive Attitude
- Sharpen the Saw
- Interview Success
- Work Essential Skills Vocabulary
- Personal Mission Statement
- Resumes
- Goal Setting

Level 2 - Landscaping - Winning Edge Work Essential Skills – Retention

- Skills that Separate You from the Rest
- Whatever It Takes
- Who's the Boss?
- Time Management
- Synergy
- Think Win/Win
- Be Proactive
- Effective Communication
- Elevator Speech

Masonry / Bricklayer

Level 1 - Masonry / Bricklayer - Foundational Skills

Program Length: 9 Months

Number of Academic Hours Required: 280 hours

Externship: 320 hours

Number of Weeks Required: 34 weeks

Required Textbooks and Materials:

Carpentry Remote Courses, OSHA 10 Guidelines, Winning Edge: Work Essential Skills

[NCCER Masonry Level 1 Trainee Guide, Third Edition](#)

Pre-Requisites:

GED or High School Diploma, Age 18 or older

Level 2 - Masonry / Bricklayer

Program Length: 24 Months

Number of Academic Hours Required: 352 hours (176 per year)

Externship: 4000 total hours (Level 1 on the job learning hours may be credited)

Number of Weeks Required: 100 weeks

Required Textbooks and Materials:

OSHA 10 Guidelines

[Masonry Skills, 7th Edition - 9781285426839 - Cengage](#)

[Residential Construction Academy, 1st Edition - 9781418052843 - Cengage](#)

Pre-Requisites:

GED or High School Diploma, Age 18 or older

Completion of: Building Construction Technology Level 1



Masonry / Bricklayer

Overview

Masonry is a skilled trade that includes the construction and maintenance of walkways, walls, foundations, fences, and structural and decorative elements for residential and commercial buildings. The Masonry program provides foundational academic instruction designed to prepare students for entry-level employment in the masonry and bricklaying field. Instruction emphasizes precision, craftsmanship, material handling, and attention to detail when working with brick, block, concrete, mortar, and related masonry materials.

Students receive tablets and instructional materials to support successful completion of instructor-led coursework. Academic instruction includes masonry fundamentals, safety practices, brick and block laying techniques, use of masonry tools and equipment, and routine maintenance procedures. Coursework is delivered through structured lessons that include instructional presentations, videos, applied learning activities, and assessments designed to evaluate student progress and mastery of required competencies.

As a required component of the Masonry program, students participate in a structured, instructor-supervised externship designed to reinforce academic instruction through hands-on practical skills training. The externship is an integrated part of the program curriculum and is completed in accordance with the approved program schedule. Externship training is institutionally controlled and coordinated by Veteran Care. Instructional staff supervise, monitor, and evaluate student progress to ensure completion of required competencies and learning objectives. Externship activities are educational in nature and do not constitute employment or employer-paid on-the-job training. All externship hours are documented and maintained by the institution as part of the student's official training record and count toward the total program clock-hour requirement.

Level 1 - Program Objectives: Masonry / Bricklayer – Foundational Skills

At the successful completion of the program curriculum, students will be able to:

- Identify and describe proper PPE for Masonry brick, hardscape and cement work
- Describe OSHA 10 guidelines related to working as a mason/ bricklayer
- Identify various masonry related materials including concrete, mortar, tools, measuring tools, mixers.
- Identify various masonry work.
- Develop an understanding of common masonry related terminology, vocabulary, common terms, processes, and procedures.
- Identify commonly used bricks, blocks, or tiles.
- Discuss the application for mortar and steps to apply mortar or other mixtures over work surfaces.
- Examine brickwork and determine the need for repair.
- Learn to use a measuring tape to measure distances from reference points.
- Learn the importance of mixing specified amounts of clay, sand, dirt, and mortar powder with water for various techniques.
- Identify brick fasteners and other building materials with tools such as wire clamps, anchor holes, mortar and cement.

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Level 2 - Program Objectives: Masonry / Bricklayer

At the successful completion of the program curriculum, students will be able to:

- Understand the importance of prepping work areas and cleaning work surfaces to remove scale, soot, dust, or chips or brick and mortar.
- Identify potential hazards and describe risk prevention measures
- Understand how to measure cubic feet for areas needing masonry fill for gravel, rock, and brick masonry hardscapes.
- Identify tools and materials needed for various masonry projects including hardscapes, stone walls, brick walls and patios.
- Identify potential work hazards for masons and how to avoid them.
- Define common masonry terms – pointing, joints, lines, mortar, bricks and others

Masonry / Bricklayer

Level 1 - Course List: Masonry / Brick Laying – Foundational Skills

- Career opportunities for Masonry Workers & Brick Laying
- Identify proper PPE for various masonry projects
- Cutting Brick and Stone
- Understand common Masonry vocabulary and terminology
- Understand the uses of Concrete, Mortar, Lumber in Masonry
- Identify Joints and how they affect the project
- Lines and Joints
- Masonry Problems
- Maintenance and Cleaning of job sites, tools and materials
- Mortar, Concrete, Use, Mixing and Clean up
- Describe Pointing in terms of brick work

Level 2 - Course List: Masonry / Brick Laying

- Equipment Safety
- First Aid and Injury Prevention
- Scaffolding use, set up, inspection, removal
- Fall harnesses – use, inspection, maintenance
- Plumb Rule & Level
- Masonry folding scale rules
- Plugging and Joint Chisel
- Fastening the Line
- Mason's brush
- Steel square
- Chalk box
- Tool bag
- Grout bag
- Leveling and Plumbing the course
- Checking the height with the modular rule
- Brushing the wall
- Cutting brick
- Block making machines
- Lightweight aggregates
- Characteristics and properties of concrete block

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- Block sizes and shapes
- Assembling and storing mixing materials
- Standard proportions for mortar mixtures
- Mixing mortar manually and with power mixer
- Common problems encountered while mixing mortar
- Laying bricks
- Building an outside brick corner in the stretcher bond
- Rack back lead
- Tothing the corner
- Inside corner
- Progress check
- Portland lime mixture
- Efflorescence
- Water content of mortar
- Structural bond
- Pattern bond

Masonry / Bricklayer

Level 1 & 2 - Masonry / Bricklayer - OSHA 10 Guidelines - Safety In The Workplace

- Stairway Safety
- Flammable Liquid Storage
- Step Ladder Safety
- Manual Lifting
- Safety First Back Injury and Prevention
- Blood Borne Pathogen Safety
- Accidents in the Workplace
- Confined Space
- Repetitive Motion Prevention
- Ear Protection
- Eye Protection
- Head Protection
- Respiratory Protection
- Fall Protection for HVAC Professionals
- Fire Hazards
- Safety First- First Aid
- Job Site Housekeeping and Tidiness
- Motor Vehicle Safety
- Safety First- PPE
- Working in the Cold
- Working in the Heat
- Chemical Hazards
- Horseplay on the Job

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Level 1 - Masonry - Winning Edge Work Essential Skills – Job Preparedness

- Work Essential Skills Punctuality
- The Power of a Positive Attitude
- Sharpen the Saw
- Interview Success
- Work Essential Skills Vocabulary
- Personal Mission Statement
- Resumes
- Goal Setting

Level 2 - Masonry - Winning Edge Work Essential Skills – Retention

- Skills that Separate You from the Rest
- Whatever It Takes
- Who's the Boss?
- Time Management
- Synergy
- Think Win/Win
- Be Proactive
- Effective Communication
- Elevator Speech

Painting and Finishing

Level 1 - Painting & Finishing - Foundational Skills

Program Length: 9 Months

Number of Academic Hours Required: 280 hours

Externship: 320 hours

Number of Weeks Required: 34 weeks

Required Textbooks and Materials:

Carpentry Remote Courses, OSHA 10 Guidelines, Winning Edge: Work Essential Skills

[Painting: Commercial & Residential, Level 1 \(pearson.com\)](https://www.pearson.com)

Pre-Requisites:

GED or High School Diploma, Age 18 or older

Level 2 - Painting & Finishing

Program Length: 24 Months

Number of Academic Hours Required: 352 hours (176 per year)

Externship: 4000 total hours (Level 1 on the job learning hours may be credited)

Number of Weeks Required: 100 weeks

Required Textbooks and Materials:

OSHA 10 Guidelines

[Painting: Commercial & Residential, Level 2 \(pearson.com\)](https://www.pearson.com)

[Painting: Commercial & Residential, Level 3 \(pearson.com\)](https://www.pearson.com)

Pre-Requisites:

GED or High School Diploma, Age 18 or older

Completion of: Building Construction Technology Level 1



Painting & Finishing

Overview

Painting and finishing is a skilled trade focused on the preparation, application, and finishing of interior and exterior surfaces in residential and commercial environments. The Painting and Finishing program provides foundational academic instruction designed to prepare students for entry-level employment in the painting trade. Instruction emphasizes surface preparation, paint application techniques, color matching, material selection, job site organization, and safe work practices.

Students receive tablets and instructional materials to support successful completion of instructor-led coursework. Academic instruction includes painting fundamentals, safety procedures, use and maintenance of tools and equipment, surface preparation methods, finishing techniques, and professional work practices. Coursework is delivered through structured lessons that include instructional presentations, videos, applied learning activities, and assessments designed to evaluate student progress and mastery of required competencies.

As a required component of the Painting and Finishing program, students participate in a structured, instructor-supervised externship designed to reinforce academic instruction through hands-on practical skills training. The externship is an integrated part of the program curriculum and is completed in accordance with the approved program schedule. Externship training is institutionally controlled and coordinated by Veteran Care. Instructional staff supervise, monitor, and evaluate student progress to ensure completion of required competencies and learning objectives. Externship activities are educational in nature and do not constitute employment or employer-paid on-the-job training. All externship hours are documented and maintained by the institution as part of the student's official training record and count toward the total program clock-hour requirement.

Level 1 - Program Objectives: Painting & Finishing - Foundational Skills

At the successful completion of the program curriculum, students will be able to:

- Introduction to careers in residential and commercial painting
- Safety measures for painters: ladders, scaffolding, chemical handling & storage, first aid
- PPE for painters
- Identify various types of surfaces that could be painted and qualities of each
- Associate products with the preparation and finishing of surfaces.
- Identify common painting and finishing hazards including lead and asbestos.
- Review OSHA safety standards with emphasis on safe handling of chemicals, ladder, and confined space safety.
- Implement safety guidelines to protect the health, safety, and physical integrity of residential or commercial spaces.

Level 2 - Program Objectives: Painting & Finishing

At the successful completion of the program curriculum, students will be able to:

- Describe how to prepare, repair, and finish plaster surfaces.
- Describe how to use the color wheels and match colors for client's expectations.
- Prepare estimates for painting jobs.
- Describe processes to finish different surface types.
- Implement safety guidelines to protect the health, safety, and physical integrity of residential or commercial spaces.

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- Identify paint and finishes appropriate for: residential indoor and exterior, commercial indoor and exterior, by design interest, type of surfaces and desired finish
- Accurately measure areas to be painted
- Produce estimates for projects including walls, floors, interior and exterior
- Properly set up and clean up a project site
- Identify materials needed for various projects
- Identify safety hazards on the job sites and how to avoid or reduce them

Painting & Finishing

Level 1 - Course List: Painting & Finishing - Foundational Skills

- Painting Introduction
- Careers in Painting
- Similarities and Differences between Residential & Commercial Painting
- Related Safety & Hazards
- Set up of work space
- Consider ergonomics in work space set up
- Consider safety hazards in work space set up
- Preparation of surface area and work space
- Preparing different surfaces
- Common preliminary repairs for surfaces to be painted
- Proper wall hole and crack repair
- Protecting adjacent surfaces
- Clean up
- Paint and material removal, clean up, storage, disposal

Level 2 - Course List: Painting & Finishing

- Primers & Undercoats
- Shellacs, Varnishes & Lacquers
- Pigments, Resins, Solvents, Additives
- Mixing Paint
- Estimating product needs for jobs
- Covering and repairing stains and imperfections
- Faux finishes
- Hardscape finishes, textures, design
- Bidding design work
- Commercial bids
- Trim work techniques
- Properly use commercial mixers and sprayers
- Working with various environmental issues: heat, humidity, cold, rain
- Detecting and eliminating minimal mold from surfaces and behind walls
- Mold removal requiring expert removal
- Various caulks for finishes
- Ceiling painting and repair
- Faux ceiling finishes

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Level 1 & 2 - OSHA 10 Guidelines - Safety In The Workplace – Painting and Finishing

- Stairway Safety
- Flammable Liquid Storage
- Step Ladder Safety
- Manual Lifting
- Safety First Back Injury and Prevention
- Blood Borne Pathogen Safety
- Accidents in the Workplace
- Confined Space
- Repetitive Motion Prevention
- Ear Protection
- Eye Protection
- Head Protection
- Respiratory Protection
- Fall Protection for HVAC Professionals
- Fire Hazards
- Safety First- First Aid
- Job Site Housekeeping and Tidiness
- Motor Vehicle Safety
- Safety First- PPE
- Working in the Cold
- Working in the Heat
- Chemical Hazards
- Horseplay on the Job

Level 1 - Painting and Finishing - Winning Edge Work Essential Skills – Job Preparedness

- Work Essential Skills Punctuality
- The Power of a Positive Attitude
- Sharpen the Saw
- Interview Success
- Work Essential Skills Vocabulary
- Personal Mission Statement
- Resumes
- Goal Setting

Level 2 – Painting and Finishing - Winning Edge Work Essential Skills – Retention

- Skills that Separate You from the Rest
- Whatever It Takes
- Who's the Boss?
- Time Management
- Synergy
- Think Win/Win
- Be Proactive
- Effective Communication
- Elevator Speech

Plumbing

Level 1 - Plumbing - Foundational Skills

Program Length: 9 Months

Number of Academic Hours Required: 280 hours

Externship: 320 hours

Number of Weeks Required: 34 weeks

Required Textbooks and Materials:

Carpentry Remote Courses, OSHA 10 Guidelines, Winning Edge: Work Essential Skills

[Residential Construction Academy: Plumbing - Product Details - Cengage Instructor Center](#) or
[Plumbing Trainee Guide, Level 1 \(pearson.com\)](#)

Pre-Requisites:

GED or High School Diploma, Age 18 or older

Level 2 - Plumbing

Program Length: 36 Months

Number of Academic Hours Required: 510 hours (170 per year)

Externship: 6000 total hours (Level 1 on the job learning hours may be credited)

Number of Weeks Required: 150

Required Textbooks and Materials:

OSHA 10 Guidelines

[Plumbing Trainee Guide, Level 2 \(pearson.com\)](#)

[Plumbing Trainee Guide, Level 3 \(pearson.com\)](#)

Pre-Requisites:

GED or High School Diploma, Age 18 or older

Completion of: Building Construction Technology Level 1



Plumbing

Overview

Plumbing is a critical skilled trade that supports public health and safety by ensuring access to clean water and the proper removal of waste. The Plumbing program provides foundational academic instruction designed to prepare students for entry-level employment in residential, commercial, and industrial plumbing environments. Instruction focuses on the installation, maintenance, and repair of sanitation systems, water and gas supply lines, and water heating equipment, while reinforcing reliability, professionalism, and safe work practices.

Students receive tablets and instructional materials to support successful completion of instructor-led coursework. Academic instruction includes plumbing fundamentals, safety procedures, tool usage, equipment testing, basic diagnostics, pipe systems, water heaters, and common residential and commercial plumbing applications. Coursework is delivered through structured lessons that include instructional presentations, videos, applied learning activities, and assessments designed to evaluate student progress and mastery of required competencies.

As a required component of the Plumbing program, students participate in a structured, instructor-supervised externship designed to reinforce academic instruction through hands-on practical skills training. The externship is an integrated part of the program curriculum and is completed in accordance with the approved program schedule. Externship training is institutionally controlled and coordinated by Veteran Care. Instructional staff supervise, monitor, and evaluate student progress to ensure completion of required competencies and learning objectives. Externship activities are educational in nature and do not constitute employment or employer-paid on-the-job training. All externship hours are documented and maintained by the institution as part of the student's official training record and count toward the total program clock-hour requirement.

Level 1 - Program Objectives: Plumbing - Foundational Skills

At the successful completion of the program curriculum, students will be able to:

- Learn about career opportunities for plumbers.
- Recognize and identify tools used for common plumbing work.
- Explain proper tool use, storage and related safety measures.
- Learn related OSHA 10 safety guidelines for plumbers
- Explain various job site and work site safety hazards and risk reduction / avoidance for them
- Identify basic plumbing tools and materials
- Become familiar with basic plumbing vocabulary and terminology
- Learn about common plumbing repairs for both residential and commercial structures.
- Identify various sealants used for plumbing
- Learn mathematics related to plumbing: calculations for area, volume, temperature, pressure and force
- Introduction to factors that can reduce efficiency of water supply
- Describe different backflow prevention devices and how they work

Level 2 - Program Objectives: Plumbing

At the successful completion of the program curriculum, students will be able to:

- Identify various pipes used in plumbing and how to determine which is best for various jobs.
- Analyze the steps of installation, maintenance, and repair of plumbing and water heating systems.
- Discuss how to organize plumbing responsibilities into appropriate stages for optimal workflow and effective design, installation, and maintenance.

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- Calculate accurate pipe lengths.
- Explain how the Pythagorean theorem relates to plumbing in terms of square corners
- Understand and explain calculations for rolling offsets
- Interpret plumbing blue prints
- Describe pipe insulation – purpose, how to, prevention
- Explain the fundamentals of drawings and blueprints along with the assembly of piping and accessories.
- Understand the International Plumbing Code and how its requirements apply to various plumbing tasks.
- Identify various safety hazards for plumbers and how to avoid them.
- Explain how to disinfect, filter and soften water supply systems
- Explain how to identify water supply problems
- How to flush out visible contaminants in plumbing systems
- Learn various vents used in DWV systems and how they work
- Explain how to calculate drainage fixture units for waste systems
- Identify features of storm drain systems
- Identify parts of sump pumps and sewage pumps
- Learn the basics of sump / sewage pump installation, troubleshooting, repair, controls
- Explain how to diagnose water supply and drainage piping for water heaters, dishwashers, refrigerators, showers and toilets
- Describe how corrosion, freezing and hard water affect plumbing
- Explain how to locate, install, troubleshoot drain, waste and vent systems

Plumbing

Level 1 - Course List: Plumbing - Foundational Skills

- About Plumbing Careers
- Welcome and Introduction
- Tools for Plumbers
- Welcome and Introduction- Safety
- Safety for Plumbers
- Plumbing terminology and vocabulary
- Common Residential and Commercial Plumbing Issues
- Introduction to Electric and Gas Water Heaters
- Benefits of Low Flow Plumbing
- Black Iron and Galvanized Pipe
- Calculating the Slope of Drainage Pipes
- Common Toilet Problems
- Cutting and Joining Cast Iron Pipe
- Cutting and Joining Copper Tubing
- Common Plumbing and Backflow Preventers
- Faucet Leaks and Repairs
- Dual Flush Toilet

Level 2 - Course List: Plumbing

- Plumbing Math 2: Pythagorean theorem
- Reading commercial drawings / blue prints
- Identify common plumbing diagrams
- Identify plumbing entry points, establish piping routes and fixture locations

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- Pipe Insulation
- Firestopping – Fiberglass, flexible foam
- DWV Piping
- Locate, install, connect and test drain waste and vent systems
- Installing Roof, Floor & Area Drains
- Installing and Testing Water Supply
- Water softeners
- Types of Valves
- Installing fixtures and valves
- Installing water heaters
- Electrical safety for plumbers
- Fuel gas and fuel oil systems
- Sizing & Protecting water supply systems
- Portable water supply treatment
- Types of venting
- DWV & storm systems
- Sewage pumps and sump pumps
- Corrosive resistant waste piping
- Compressed air systems
- Service plumbing

Plumbing

Level 1 & 2 - OSHA 10 Guidelines - Safety in the Workplace: Plumbing

- Stairway Safety
- Flammable Liquid Storage
- Step Ladder Safety
- Manual Lifting
- Safety First Back Injury and Prevention
- Blood Borne Pathogen Safety
- Accidents in the Workplace
- Confined Space
- Repetitive Motion Prevention
- Ear Protection
- Eye Protection
- Head Protection
- Respiratory Protection
- Fall Protection for HVAC Professionals
- Fire Hazards
- Safety First- First Aid
- Job Site Housekeeping and Tidiness
- Motor Vehicle Safety
- Safety First- PPE
- Working in the Cold
- Working in the Heat
- Chemical Hazards
- Horseplay on the Job

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Level 1 - Plumbing - Winning Edge Work Essential Skills – Job Preparedness

- Work Essential Skills Punctuality
- The Power of a Positive Attitude
- Sharpen the Saw
- Interview Success
- Work Essential Skills Vocabulary
- Personal Mission Statement
- Resumes
- Goal Setting

Level 2 - Plumbing - Winning Edge Work Essential Skills – Retention

- Skills that Separate You from the Rest
- Whatever It Takes
- Who's the Boss?
- Time Management
- Synergy
- Think Win/Win
- Be Proactive
- Effective Communication
- Elevator Speech

Weatherization and Insulation Worker

Level 1 - Weatherization and Insulation Worker – Foundational Skills

Program Length: 9 Months

Number of Academic Hours Required: 280 hours estimated or until course completion

Externship: Up to 320 hours

Number of Weeks Required: 34 weeks

Required Textbooks and Materials:

Carpentry Remote Courses, OSHA 10 Guidelines, Winning Edge: Work Essential Skills

[Mechanical Insulating Trainee Guide, Level 1 \(pearson.com\)](https://www.pearson.com)

Pre-Requisites:

GED or High School Diploma, Age 18 or older

Level 2 - Weatherization and Insulation Worker

Program Length: 24 Months

Number of Academic Hours Required: 352 hours (176 per year) estimated or until course completion

Externship: 4000 total hours (Level 1 on the job learning hours may be credited)

Number of Weeks Required: 102 weeks

Required Textbooks and Materials:

OSHA 10 Guidelines

[Mechanical Insulating Trainee Guide, Level 2 \(pearson.com\)](https://www.pearson.com)

Pre-Requisites:

GED or High School Diploma, Age 18 or older

Completion of: Building Construction Technology Level 1



Weatherization and Insulation Worker

Overview

Weatherization and insulation focus on improving the energy efficiency, comfort, and durability of residential and commercial structures. The Weatherization and Insulation program provides foundational academic instruction designed to prepare students for entry-level employment in energy efficiency, insulation, and building performance roles. Instruction emphasizes reducing energy loss, improving airflow, protecting structures from environmental elements, and supporting sustainable building practices. Students receive tablets and instructional materials to support successful completion of instructor-led coursework.

Academic instruction includes weatherization fundamentals, insulation materials and techniques, airflow testing and diagnostics, safety practices, waterproofing methods, and energy conservation principles. Coursework is delivered through structured lessons that include instructional presentations, videos, applied learning activities, and assessments designed to evaluate student progress and mastery of required competencies.

As a required component of the Weatherization and Insulation program, students participate in a structured, instructor-supervised externship designed to reinforce academic instruction through hands-on practical skills training. The externship is an integrated part of the program curriculum and is completed in accordance with the approved program schedule. Externship training is institutionally controlled and coordinated by Veteran Care. Instructional staff supervise, monitor, and evaluate student progress to ensure completion of required competencies and learning objectives. Externship activities are educational in nature and do not constitute employment or employer-paid on-the-job training. All externship hours are documented and maintained by the institution as part of the student's official training record and count toward the total program clock-hour requirement.

Level 1 - Program Objectives: Weatherization and Insulation Worker - Foundational Skills

At the successful completion of the program curriculum, students will be able to:

- Introduction to weatherization & insulation
- Careers for insulation installers
- Introduction to green technology and the role of weatherization techniques
- Explain conservation in terms of energy efficiency in residential and commercial structures.
- Identify various ways residences and buildings lose energy.
- Identify roofing, window and door defaults that equate to energy loss.
- Identify various tools and materials used in weatherization.
- Describe weatherization and its role in building and construction.
- Identify potential safety hazards when working in weatherization, specifically in working with mold, asbestos, old pipes, on ladders and roofs.
- Explain benefits to owners of structures to implement weatherization of their structure.
- Understand how maintaining heating and cooling systems affects green energy.
- Explain benefits of solar energy.

Level 2 - Program Objectives: Weatherization and Insulation Worker

At the successful completion of the program curriculum, students will be able to:

- Install insulation where needed and perform air sealing.
- Install window film, awnings, and solar screens.
- Explain the importance of performing heating system safety testing.
- Explain how to evaluate mold/moisture hazards.

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- Educate clients on potential household hazards such as carbon monoxide, mold and moisture, fire, lead paint, indoor air pollutants, etc.
- Describe the benefits of using energy-efficient products.
- Describe insulation techniques for various pipes, vents and valves
- Explain insulation for hot water systems and how they support efficiency
- Explain various types of insulation used in commercial and residential areas
- Describe how to measure and install pipe insulation
- Read blueprints and explain insulation requirements
- Describe various insulation fasteners

Weatherization & Insulation

Level 1 – Course List: Weatherization and Insulation Worker - Foundational Skills

- Introduction to weatherization and insulation
- Weatherization and insulation applications in residential structures
- Weatherization and insulation applications in commercial structures
- Safety hazards working in weatherization and insulation
- Material handling and movement on the job site
- Material handling and safe storage
- PPE – proper use
- Intro to Removing hazards – asbestos
- Intro to Removing hazards – lead
- Roofing materials – Green Roofing options
- Windows – Green Window options
- Insulation
- HVAC and Heating units
- Solar Energy
- Building Green
- Updating older structures to be energy efficient
- Benefits for home owners
- Tools & Materials used in weatherization and insulation

Level 2 – Course List: Weatherization and Insulation Worker

- Various pipes used in structures
- Characteristics of pipe
- Relationship of pipe sizes and insulation sizes
- Plumbing systems
- Hot and cold plumbing systems
- Insulation requirements for plumbing systems
- Chilled and hot water heating systems
- Dual temperature systems
- Insulation required for chilled and hot water heating systems
- Installing fiberglass pipe insulation
- Characteristics of pipe insulation
- Insulating pipe fittings, valves and flanges
- Construction drawings and specifications – read drawings to understand insulation requirements
- Trade math – review basic mathematics, geometric concepts, decimals and measurement
- Heat transfer and moisture

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- Flexible foam insulation
- Air duct systems
- Blanket insulation for ducts
- Board insulation for ducts
- Cements and fabric finishes
- Insulation adhesives
- Vapor retarders and insulation coatings
- Steam and process water systems
- Safe handling and storage of calcium silicate pipe insulation
- Cutting calcium silicate pipes
- Rigid foam insulation
- Cutting and installing rigid foam
- Insulation for Industrial boiler systems

Weatherization and Insulation Worker

Level 1 & 2

OSHA 10 Guidelines - Safety In The Workplace: Weatherization and Insulation Worker

- Stairway Safety
- Flammable Liquid Storage
- Step Ladder Safety
- Manual Lifting
- Safety First Back Injury and Prevention
- Blood Borne Pathogen Safety
- Accidents in the Workplace
- Confined Space
- Repetitive Motion Prevention
- Ear Protection
- Eye Protection
- Head Protection
- Respiratory Protection
- Fall Protection for HVAC Professionals
- Fire Hazards
- Safety First- First Aid
- Job Site Housekeeping and Tidiness
- Motor Vehicle Safety
- Safety First- PPE
- Working in the Cold
- Working in the Heat
- Chemical Hazards
- Horseplay on the Job

Level 1

Weatherization Insulation Worker - Winning Edge Work Essential Skills – Job Preparedness

- Work Essential Skills Punctuality
- The Power of a Positive Attitude
- Sharpen the Saw
- Interview Success
- Work Essential Skills Vocabulary
- Personal Mission Statement
- Resumes
- Goal Setting

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Level 2 - Weatherization and Insulation Worker - Winning Edge Work Essential Skills – Retention

- Skills that Separate You from the Rest
- Whatever It Takes
- Who's the Boss?
- Time Management
- Synergy
- Think Win/Win
- Be Proactive
- Effective Communication
- Elevator Speech

Welding

Level 1 – Welding - Foundational Skills - Academics

Program Length: 9 Months

Number of Academic Hours Required: 280 hours

Externship: 320 hours

Number of Weeks Required: 34 weeks

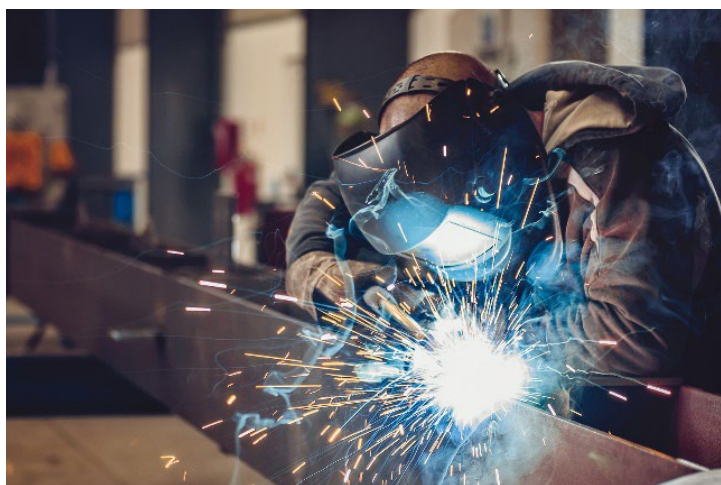
Required Textbooks and Materials:

Carpentry Remote Courses, OSHA 10 Guidelines, Winning Edge: Work Essential Skills

[Welding Trainee Guide, Level 1 \(pearson.com\)](https://www.pearson.com)

Pre-Requisites:

GED or High School Diploma, Age 18 or older



Overview

Welding is a skilled trade that involves joining, cutting, and fabricating metal components used in residential, commercial, industrial, and manufacturing environments. The Welding program provides foundational academic instruction designed to prepare students for entry-level employment in welding and metal fabrication fields. Instruction emphasizes welding safety, proper use of equipment, adherence to electrical and industry codes, and precision in cutting and joining metal materials.

Students receive tablets and instructional materials to support successful completion of instructor-led coursework. Academic instruction includes welding fundamentals, safety practices, welding processes, equipment operation, applied trade mathematics, and material properties. Coursework is delivered through structured lessons that include instructional presentations, videos, applied learning activities, and assessments designed to evaluate student progress and mastery of required competencies.

As a required component of the Welding program, students participate in a structured, instructor-supervised externship designed to reinforce academic instruction through hands-on practical skills training. The externship is an integrated part of the program curriculum and is completed in accordance with the approved program schedule.

Externship training is institutionally controlled and coordinated by Veteran Care. Instructional staff supervise, monitor, and evaluate student progress to ensure completion of required competencies and learning objectives. Externship activities are educational in nature and do not constitute employment or

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employer-paid on-the-job training. All externship hours are documented and maintained by the institution as part of the student's official training record and count toward the total program clock-hour requirement.

Welding

Level 1 - Program Objectives: Welding – Foundational Skills

At the successful completion of the program curriculum, students will be able to:

- Introduction to welding careers
- Develop an understanding of safety hazards related to welding & how to avoid and / or reduce risk
- Learn about welding PPE
- Electrical safety hazards for welders
- Burn and heat injuries common to welders
- First aid for common welding injuries
- Introduce OSHA 10 safety standards
- Introduction to ANSI
- Introduction to common welding processes while distinguishing between different types of welding power source technology.
- Introduce metals and their properties and how that affects welding processes
- Introduction to oxyfuel & oxyfuel cutting
- Proper handling, storage and work with gas cylinders
- Identify oxyfuel cutting, SMAW, GMAW
- Identify plasma arc cutting

Level 1 - Course List: Welding – Foundational Skills

- Introduction to welding
- Careers in welding
- Health Concerns for Welders
- PPE Assignments
- Vocabulary- Level 1
- Oxyfuel
- Welding Safety
- Welding Quizzes from NCCER Level 1 Book
- ANSI Textbook- Safety in Welding, Cutting, and Allied Processes
- Arc Welding
- Combustible Dust Hazards
- Electrical Hazards for Welders
- Essential Welding Tools
- Fumes, Gases, and Ventilation
- Gas Metal Arc Welding (GMAW)
- Hexavalent Chromium
- Laser Safety in Welding
- Metals Used in Welding
- Oxyfuel and Oxy Acetylene Welding
- OSHA Guidelines for Welding Standards, Hazards, and Solutions
- Resistance Spot Welding
- Robotic Welding
- Supervisors in Welding

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- Welding Cables
- Thoriated Tungsten Electrodes
- Tungsten Inert Gas (TIG) or Gas Tungsten Arc Welding (GTAW)
- Welding Cutting Basics
- Welding Fire Hazards
- Welding Imperfections
- Welding Maintenance and Clean Up
- Welding PPE
- Welding Symbols
- Welding Vocabulary
- Welding in Confined Spaces
- Fluxes in Welding
- Workplace Setup for Welding

Welding

Level 1 - OSHA 10 Guidelines - Safety In The Workplace - Welding

- Stairway Safety
- Flammable Liquid Storage
- Step Ladder Safety
- Manual Lifting
- Safety First Back Injury and Prevention
- Blood Borne Pathogen Safety
- Accidents in the Workplace
- Confined Space
- Repetitive Motion Prevention
- Ear Protection
- Eye Protection
- Head Protection
- Respiratory Protection
- Fall Protection for HVAC Professionals
- Fire Hazards
- Safety First- First Aid
- Job Site Housekeeping and Tidiness
- Motor Vehicle Safety
- Safety First- PPE
- Working in the Cold
- Working in the Heat
- Chemical Hazards
- Horseplay on the Job

Level 1 - Welding - Winning Edge Work Essential Skills – Job Preparedness

- Work Essential Skills Punctuality
- The Power of a Positive Attitude
- Sharpen the Saw
- Interview Success
- Work Essential Skills Vocabulary
- Personal Mission Statement
- Resumes

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- Goal Setting
- Skills that Separate You from the Rest
- Whatever It Takes
- Who's the Boss?
- Time Management
- Synergy
- Think Win/Win
- Be Proactive
- Effective Communication
- Elevator Speech

Manufacturing

Level 1 - Manufacturing - Foundational Skills – Academics

Program Length: 9 Months

Number of Academic Hours Required: 280 hours

Externship: 320 hours

Number of Weeks Required: 34 weeks

Required Textbooks and Materials:

Carpentry Remote Courses, OSHA 10 Guidelines, Winning Edge: Work Essential Skills

[The Definitive Guide to Warehousing: Managing the Storage and Handling of Materials and Products in the Supply Chain](#)

Pre-Requisites:

GED or High School Diploma, Age 18 or older



Overview

Manufacturing Production and Logistics focuses on the movement, storage, and management of materials and products within supply chain and production environments. The Manufacturing Production and Logistics program provides foundational academic instruction designed to prepare students for entry-level employment in manufacturing, warehousing, and logistics operations. Instruction emphasizes supply chain fundamentals, inventory control, material handling, production flow, and safe workplace practices.

Students receive tablets and instructional materials to support successful completion of instructor-led coursework. Academic instruction includes manufacturing and logistics fundamentals, safety procedures, production line operations, material handling systems, workflow planning, and an overview of warehousing and distribution processes. Coursework is delivered through structured lessons that include instructional presentations, videos, applied learning activities, and assessments designed to evaluate student progress and mastery of required competencies.

As a required component of the Manufacturing Production and Logistics program, students participate in a structured, instructor-supervised externship designed to reinforce academic instruction through hands-on practical skills training. The externship is an integrated part of the program curriculum and is completed in accordance with the approved program schedule. Externship training is institutionally

controlled and coordinated by Veteran Care. Instructional staff supervise, monitor, and evaluate student progress to ensure completion of required competencies and learning objectives. Externship activities are educational in nature and do not constitute employment or employer-paid on-the-job training. All externship hours are documented and maintained by the institution as part of the student's official training record and count toward the total program clock-hour requirement.

Manufacturing

Level 1 - Program Objectives: Manufacturing – Foundational Skills

At the successful completion of the program curriculum, students will be able to:

- Career opportunities in Manufacturing & Logistics
- Identify common roles in Manufacturing & Logistics
- Introduction to OSHA 10 guidelines
- Safety for Manufacturing and logistics
- Proper storage and material handling
- Forklift safety – working around forklifts and other material handling equipment
- Demonstrate workflow planning and control.
- Demonstrate production line operations.
- Explain work flow for production and logistics
- Demonstrate proper handling of machinery.
- Understand the materials and equipment used in continuous flow, custom manufacturing, fixed production, and production line manufacturing.
- Explain the production line roles of assembly, maintenance, logistics and supervisors.
- Self-monitor production and efficiency,
- Document product production properly.
- Understand the principles of 5S and lean manufacturing

Level 1 - Course List: Manufacturing – Foundational Skills

- Arc Flashes
- Electrical Safety Review
- Fall Protection
- Forklifts in Manufacturing
- Green Manufacturing
- Hazardous Waste
- Input and Output
- Manufacturing Introduction
- Just in Time Manufacturing Concept
- Lean Manufacturing
- Manual Lifting
- Manufacturing PPE
- Manufacturing Processes
- Material Handling
- Roles in Manufacturing
- Scissor Lift
- Supply Chain
- Tools and PPE
- Additive and Subtractive Manufacturing

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- Electrical Safety Overview
- Lockout/Tagout
- Pressure Relief and Pressure Reducing Valves
- Steam and Various Valves
- Process Control Monitoring Systems
- Controlled Pressure Operations Quiz

Manufacturing

Level 1 - OSHA 10 Guidelines - Safety In The Workplace - Manufacturing

- Stairway Safety
- Flammable Liquid Storage
- Step Ladder Safety
- Manual Lifting
- Safety First Back Injury and Prevention
- Blood Borne Pathogen Safety
- Accidents in the Workplace
- Confined Space
- Repetitive Motion Prevention
- Ear Protection
- Eye Protection
- Head Protection
- Respiratory Protection
- Fall Protection for HVAC Professionals
- Fire Hazards
- Safety First- First Aid
- Job Site Housekeeping and Tidiness
- Motor Vehicle Safety
- Safety First- PPE
- Working in the Cold
- Working in the Heat
- Chemical Hazards
- Horseplay on the Job

Level 1 - Winning Edge Work Essential Skills – Job Preparedness

- Work Essential Skills Punctuality
- The Power of a Positive Attitude
- Sharpen the Saw
- Interview Success
- Work Essential Skills Vocabulary
- Personal Mission Statement
- Resumes
- Goal Setting
- Skills that Separate You from the Rest
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- Think Win/Win

- Be Proactive
- Effective Communication
- Elevator Speech

Veteran Care

Math For Skilled Trade Professionals Individual Courses



Carpentry Mathematics
Area & Perimeter
Calculating Volume
Fractions For Skilled Trade Professions
Tape Measure Skills & Related Math
Whole Number Computation

Math for Skilled Trade Professionals

Carpentry Math

Overview

The general mathematics course for carpentry introduces students to the required metric basics that carpenters must know. Our program ensures that students can check for squaring and perfectly cut/square lumber. Students will learn how to calculate the square area of squares, rectangles, and triangles in meters, inches, and feet. Each course includes several lessons with slideshows, videos, and practice questions to advance student's knowledge before taking a quiz that allows them to pass the course.

Objectives

At the successful completion of the program curriculum, students will be able to:

- Check for squaring and ensure perfectly cut and squared lumber.
- Use the 3-4-5 rule.
- Understand how to calculate the square area of different shapes using different metric systems.
- Square lumber with a jointer.
- Find the square area of a space.

Course List

- Squaring in Carpentry
- Calculating the Square Area of Walls, Floors, and Roofs
- Tape Measure
- Decimals
- Fractions
- Quiz

Number of Hours Required: 5 hours estimated or until course completion

Number of Weeks Required: 1 week estimated or until course completion

Required Textbooks and Materials: Veteran care Online LMS

[NCCER Carpentry Level 1 Trainee Guide, 5th Edition](#)

Pre-Requisites: GED or High School Diploma

Area and Perimeter

Overview

The general mathematics course for our PACT program introduces students to the required metric basics that all students must know. Our program teaches the definitions, formulas, and application of area and perimeter of various shapes in relation to work assigned to skilled trade professionals. The courses in this program implement area and perimeter and how they are relevant to trade work. ensures that students can check for squaring and perfectly cut/square lumber. Each course includes several lessons with slideshows, videos, and practice questions to advance student's knowledge before taking a quiz that allows them to pass the course.

Objectives

At the successful completion of the program curriculum, students will be able to:

- Understand area- define and identify the formulas to find area in various shapes.
- Understand perimeter- define and identify the formulas to find perimeter in various shapes.
- Practice finding both area and perimeter for squares, rectangles, triangles, and circle shapes.
- Solve for area and perimeter.
- Understand why area and perimeter are important to compute as a skilled trade professional.
- Understand the relevance of area and perimeter in the skilled trade professions.

Course List

- Area for the Skilled Trade Professional- Squares, Rectangles, and Triangles
- Quiz: Area of Squares, Rectangles, and Triangles
- Perimeter for the Skilled Trade Professional- Squares, Rectangles, and Triangles
- Quiz: Perimeter
- Circles: Area, Radius, Diameter, Pie
- Quiz: Circles- Area, Radius, Diameter, Pie

Number of Hours Required: 5 hours estimated or until course completion

Number of Weeks Required: 1 week estimated or until course completion

Required Textbooks and Materials: Consumer Mathematics: Veteran care LMS

[The Mathematics of Trades and Professions](#)

Pre-Requisites: GED or High School Diploma

Calculating Volume

Overview

The mathematics volume course for our PACT program introduces students to the required metric basics that all students must know. Our program teaches the definitions, formulas, and application of finding volume for rectangular prisms, cubes, and cylinders. The courses in this program implements volume and how it is relevant to trade work. Each course includes several lessons with slideshows, videos, and practice questions to advance student's knowledge before taking a quiz that allows them to pass the course.

Objectives

At the successful completion of the program curriculum, students will be able to:

- Understand the formula for finding volume of cubes, rectangles, and cylinders.
- Identify how volume is important for skilled trade professionals as it relates to possible tasks at work.
- Identify formulas for volume and apply them.
- Identify radius and how it is used in the formula to find the volume of a cylinder.
- Identify height, width, and length of rectangular prisms and cubes.
- Identify the height of a cylinder.
- Understand how to find the area of the cylinder base/circular.
-

Course List

- Volume for the Skilled Trade Professional- Rectangular Solids
- Quiz: Volume of Rectangular Solids
- Volume for the Skilled Trade Professional- Cubes
- Quiz: Volume of Cubes
- Volume for the Skilled Trade Professional- Cylinders
- Quiz: Volume of Cylinders

Number of Hours Required: 5 hours estimated or until course completion

Number of Weeks Required: 1 week estimated or until course completion

Required Textbooks and Materials: Consumer Mathematics: Veteran care LMS

[The Mathematics of Trades and Professions](#)

Pre-Requisites: GED or High School Diploma

Fractions

Overview

The mathematics fractions course for our PACT program introduces students to the required metric basics that all students must know. Our program reviews and practices finding fractions on a tape measure, how to add and subtract fractions, and provides a general understanding of whole numbers and fractions. Each course includes several lessons with slideshows, videos, and practice questions to advance student's knowledge before taking a quiz that allows them to pass the course.

Objectives

At the successful completion of the program curriculum, students will be able to:

- Demonstrate an understanding of whole numbers and fractions.
- Add, subtract, multiply, and divide whole numbers and fractions.
- Find measurements on a tape measure.
- Add measurements from a tape measure to find perimeter and area.
- Solve for the smallest fraction.
- Multiply and divide fractions.
- Compute with improper fractions.

Course List

- The Inch in Fractions
- Fraction Practice
- Tape Measure and Fractions Quiz

Number of Hours Required: 5 hours estimated or until course completion

Number of Weeks Required: 1 week estimated or until course completion

Required Textbooks and Materials: Consumer Mathematics: Veteran care LMS

[The Mathematics of Trades and Professions](#)

Pre-Requisites: GED or High School Diploma

Tape Measures

Overview

The tape measures course for our PACT program introduces students to the required metric basics that all students must know. Our program reviews the different tape measure parts, application, and discusses how to use it as a tool for measurement. Each course includes several lessons with slideshows, videos, and practice questions to advance student's knowledge before taking a quiz that allows them to pass the course.

Objectives

At the successful completion of the program curriculum, students will be able to:

- How to work a tape measure
- Identify components of tape measures
- Accurately measure area and perimeter
- Understand the measurement markers on the tape measure
- Understand the various types of tape measures and features
- Recognize the importance of accurate measurement
- Explain the difference between exact measurement and allowance for building

Course List

- Tape Measure Basics
- Tape Measure Tips and Tricks
- Let's Measure

Number of Hours Required: 5 hours estimated or until course completion

Number of Weeks Required: 1 week estimated or until course completion

Required Textbooks and Materials: Consumer Mathematics: Veteran care LMS

[The Mathematics of Trades and Professions](#)

Pre-Requisites: GED or High School Diploma

Whole Numbers and Decimals

Overview

The mathematics course on whole numbers and decimals for our PACT program introduces students to the required metric basics that all students must know. Our program reviews and practices computation with whole numbers and decimals. Students will also learn to found numbers up and down through the thousands and thousandths place. Each course includes several lessons with slideshows, videos, and practice questions to advance student's knowledge before taking a quiz that allows them to pass the course.

Objectives

At the successful completion of the program curriculum, students will be able to:

- Demonstrate understanding of whole numbers
- Add, subtract, multiply and divide whole numbers
- Demonstrate an understanding of whole numbers
- Understand place value as it relates to whole numbers and fractions of numbers
- Round to the nearest tenth, hundredth, and thousandth place
- Demonstrate an understanding of computation with decimals through addition, subtraction, multiplication, and division.

Course List

- Whole Numbers and Rounding to the Thousands Place
- Whole Numbers Quiz
- Decimals- Adding, Subtracting, Multiplying and Dividing
- Decimal Quiz

Number of Hours Required: 5 hours estimated or until course completion

Number of Weeks Required: 1 week estimated or until course completion

Required Textbooks and Materials: Consumer Mathematics: Veteran care LMS

[The Mathematics of Trades and Professions](#)

Pre-Requisites: GED or High School Diploma