PROGRAM OVERVIEW

This program teaches general construction skills and knowledge necessary to build a house. Practical experience and classroom training prepares students enrolled in the Building Trades program for employment in general construction or property maintenance. Students are taught carpentry, masonry, plumbing, roofing, drywall application, painting, and framing/finishing.

Students learn basic safety, the use of hand tools and power tools, and construction technology. Students explore floor systems, wall systems, ceiling joists, and roof joists. They also learn plumbing with copper tubing and fittings.

Students learn about exterior finishes, basic stair layout, electrical safety, residential electrical work, and PVC plumbing for drains, waste, and vents. Also, the opportunity is provided to students for creating a National Occupational Competency Testing Institute (NOCTI) box for their exam.
INSIDE THE INDUSTRY

<table>
<thead>
<tr>
<th>OCCUPATION</th>
<th>LOCAL WAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintenance &amp; Repair Workers, General</td>
<td>$41,950</td>
</tr>
<tr>
<td>Construction, Workers, General</td>
<td>$40,000</td>
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<tr>
<td>Property Manager</td>
<td>$62,000</td>
</tr>
<tr>
<td>Supervisor, Construction</td>
<td>$69,510</td>
</tr>
</tbody>
</table>

IS THIS CAREER RIGHT FOR YOU?

- Do you like working with your hands?
- Do you enjoy working with hand tools and power tools?
- Do you have an interest in carpentry, masonry, roofing, and drywall application?
- Is math one of your favorite subjects?
- Would you like to work with home or industrial construction needs?

INDUSTRY CERTIFICATIONS:

- OSHA-10
- Employability: Interviewing Skills
- National Center for Construction Education and Research (NCCER) Construction Technology
- National Center for Construction Education and Research (NCCER) Core
CARPENTRY
CIP: 46.0201

PROGRAM OVERVIEW
This program provides students the opportunity to learn building layout, framing, roofing, window and door installation, and finish trim work. On-site projects include the use of hand and power tools to do building layout, flooring, framing and wall construction, roofing, and the application of exterior and interior finishes. Upon graduation, students can continue their education through local union apprenticeships, a variety of partnering college programs, or the Association of Builders and Contractors.

Through this project-based program, students learn about hand and power tool safety, measuring, layout, basic blueprint reading, basic wood joints, and material sizing. Additionally, they learn basic trim methods, advanced framing methods, interior trim package installation, exterior, roofing, window and door installation, blueprint reading, and estimation.

Advancement in the program means students will be eligible to increase their knowledge on roof framing, building layout, advanced exterior finishes, advanced interior finishes, blueprint reading, deck construction, and advanced estimation.
INSIDE THE INDUSTRY

<table>
<thead>
<tr>
<th>OCCUPATION</th>
<th>LOCAL WAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Helpers - Carpenters</td>
<td>$32,360</td>
</tr>
<tr>
<td>Carpenters</td>
<td>$66,440</td>
</tr>
<tr>
<td>Lead Carpenters and Foremen</td>
<td>$74,000</td>
</tr>
<tr>
<td>Supervisor, Construction</td>
<td>$69,510</td>
</tr>
</tbody>
</table>

IS THIS CAREER RIGHT FOR YOU?

- Do you enjoy working with your hands?
- Do you like building things?
- Do you like working with hand tools and power tools?
- Do you think you would enjoy working everyday with wood?
- Are you good with basic math and measuring?
- Do you pay close attention to detail?

INDUSTRY CERTIFICATIONS:

OSHA-10
Employability: Interviewing Skills
PROGRAM OVERVIEW

This program provides students with an introduction to the basic concepts of residential and commercial wiring. With an emphasis on safety, students install circuits, switches, conductors, circuit breakers, and other electrical devices. Topics covered include selecting and ordering materials, key supplies and tools, codes, blueprint reading, and low voltage wiring. Students are taught in compliance with the National Electrical Code (NEC) and the Residential Construction Academy (RCA) industry standards. Students begin working toward their RCA and OSHA 10 certifications immediately.

When students first explore this program, they learn safety, tools, residential wiring, blueprints, circuitry, devices, raceways, bending, OHM’s Law, and work to complete OSHA 10. As students continue in the program, they attain employability skills. Students gain more in-depth knowledge with respect to safety & tools, commercial wiring, review of blueprints, devices, raceways, bending conduit, panels, disconnects, and circuitry.
### INSIDE THE INDUSTRY

<table>
<thead>
<tr>
<th>OCCUPATION</th>
<th>LOCAL WAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supervisor - Construction Trades &amp; Extraction Workers</td>
<td>$87,520</td>
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<tr>
<td>Electricians</td>
<td>$81,210</td>
</tr>
<tr>
<td>Helpers - Electricians</td>
<td>$39,120</td>
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<tr>
<td>Supervisors - Mechanics, Installers &amp; Repairers</td>
<td>$74,290</td>
</tr>
<tr>
<td>Security &amp; Fire Alarms System Installers</td>
<td>$48,180</td>
</tr>
<tr>
<td>Electrical Power Line Installers &amp; Repairers</td>
<td>$85,950</td>
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<tr>
<td>Signal &amp; Track Switch Repairers</td>
<td>$69,770</td>
</tr>
</tbody>
</table>

### IS THIS CAREER RIGHT FOR YOU?

- Do you like the challenge of working with wiring and circuitry?
- Do you like the challenge of working with wiring and circuitry?
- Do you think you would enjoy working everyday with electricity?
- Are you good with basic math and measuring?
- Do you like the challenge of detailed puzzles?

### INDUSTRY CERTIFICATIONS:

- OSHA-10
- Employability: Interviewing Skills
- Ladder Safety Training provided by the American Ladder Institute
- S/P2 – Construction
HEATING, VENTILATION & AIR CONDITIONING (HVAC) & PLUMBING
CIP: 47.0201

PROGRAM OVERVIEW

HVAC and plumbing professionals are instrumental in ensuring that homes and buildings function properly on a daily basis.

The HVAC and Plumbing Technology program introduces students to the basic concepts of residential and commercial work. With an emphasis on safety, students work with copper, black pipe, electric, and full HVAC systems.

Topics covered include selecting and ordering materials, supplies, tools, codes, blueprint reading, and low voltage wiring. Students learn about safety, tools, residential work, blueprints, basic HVAC systems, and basic plumbing skills. Students are taught in compliance with the International Code Council (ICC) Plumbing, Mechanical, Fuel Gas Code and the Residential Construction Academy (RCA) industry standards.
inside the industry

<table>
<thead>
<tr>
<th>OCCUPATION</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Solar Photovoltaic Installers</td>
<td>$42,680</td>
</tr>
<tr>
<td>Heating, Air Conditioning &amp; Refrigeration Mechanics &amp; Installers</td>
<td>$55,170</td>
</tr>
<tr>
<td>HVAC Service Managers</td>
<td>$75,250</td>
</tr>
</tbody>
</table>

industry certifications:

OSHA-10

Employability: Interviewing Skills

EPA 608 - Environmental Protection Agency Certification

Universal R-410-A Safety & Training, Ladder Certifications provided by the American Ladder Institute

is this career right for you?

☑ Do you enjoy working with your hands?

☑ Do you like working with tools?

☑ Do you like doing repair work and connecting different components to existing systems?

☑ Do you think you would enjoy working everyday with plumbing and/or heating and cooling systems?

☑ Are you good with basic math and measuring?

☑ Are you able to pay close attention to detail?
PROGRAM OVERVIEW

The welding industry can be extremely rewarding due to the fact that employers have a constant need for skilled welders. Welding is used in manufacturing, construction and many other industries. In the Welding Technology program, students are taught oxy-fuel gas cutting principles and practices, arc cutting principles and practices, and welding inspection and testing principles. Welding Technology students research careers in the welding field and learn how to weld in all positions. Further, they learn how to interpret blueprints and layout projects from cutting to tacking to full completion of projects. Students learn about precision cuts in steel plates using superheated gases and learn how steel is formed from a liquid to solid. Students also gain hands-on training in a variety of welding procedures including shielded metal arc welding (STICK), gas metal arc welding (MIG), flux cored arc welding (FCAW) and gas tungsten arc welding (TIG).

In this program, students learn how to use the proper equipment for testing welds, destruction, and hardness testing. They gain experience in reading and understanding manuals and specification charts for the welding process. The students learn how to use grinders and chemical baths for surface cleaning, proper clamping techniques, and welding standards established by the American Welding Society.
INSIDE THE INDUSTRY

<table>
<thead>
<tr>
<th>OCCUPATION</th>
<th>LOCAL WAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sheet metal workers</td>
<td>$48,000</td>
</tr>
<tr>
<td>Welders, Cutters, Solderers &amp; Brazers</td>
<td>$50,600</td>
</tr>
<tr>
<td>Boilermakers</td>
<td>$50,000</td>
</tr>
<tr>
<td>Pipefitters</td>
<td>$58,000</td>
</tr>
</tbody>
</table>

IS THIS CAREER RIGHT FOR YOU?

- Do you like working with your hands?
- Would you be comfortable using tools that require strong attention to safety?
- Could you spend everyday working with a variety of different welding techniques?
- Do you have good eye-hand coordination?
- Do you have strong math skills?
- Are you precise?

INDUSTRY CERTIFICATIONS:

- OSHA-10
- Employability: Interviewing Skills
- AWS d1.1