



2024-2025

SCHOOL CATALOG

Construction Education Center, Inc.
35A Robert Jackson Way, Plainville, CT 06062
Phone: 860-529-5886 Fax: 860-846-6929
www.thinkconstruction.org





The CEC is a non-profit training center that serves the Connecticut construction industry by providing training & education for apprentices & field employees. The Construction Education Center was founded by the Associated Builders & Contractors of Connecticut, Inc. to advance the construction industry of Connecticut by providing quality educational training for apprentices, journey persons, & supervisors of construction companies. *It is our goal to also enhance the quality, safety & competitiveness of Connecticut constructors within & outside the state.*

Earn While You Learn

Our program is designed for you to work during the day so you can earn your on-the-job training hours & your paycheck. Class is at night one or two days a week. Programs only one night a week include 3 hours of online course work each week.

Accreditation

Accredited by the National Center for Construction Education & Research (NCCER). NCCER offers standardized curriculum for over 60 construction trades. NCCER is a leader in construction training & is recognized internationally.

Approvals

The Construction Education Center, Inc. is approved as a private occupational school by the State of Connecticut, Office of Higher Education.

In addition, the curriculum has been reviewed and approved by the Connecticut Department of Education Technical High School System, meeting all compliance requirements for the related instruction portion of the Connecticut Department of Labor Apprenticeship Training Program and the National Bureau of Apprenticeship Training.

Instruction

Provided by local, experienced journeymen & contractors who have been certified through NCCER as trade instructors & industry professionals.

Learn More

To learn more about becoming a registered apprentice in the State of CT, please visit the Office of Apprenticeship web site.
www.ctdol.state.ct.us/progsupt/appren/appren.html

Construction Education Center, Inc.
35A Robert Jackson Way, Plainville, CT
06062
Phone: 860-529-5886
Fax: 860-846-6929
www.thinkconstruction.org

ADMISSION REQUIREMENTS

Courses offered by the CEC seeks to serve those currently employed, or seeking employment in the construction industry.

Licensed Trades

Persons interested in enrolling in the related instruction courses for licensed trades outlined in this catalog do not need to be registered apprentices to apply to the program. However, those registered as apprentices with the Department of Labor should provide proof of registration upon application by submitting a copy of current apprenticeship card as well as including sponsor contact information. Interested applicants who have completed apprenticeship related instruction courses or vocational training at other institutions should also submit transcripts of all previously completed coursework. Please note, a criminal background may negatively impact opportunities for licensing & employment.

Non-Licensed Trades

Persons interested in registering for related courses in a non-licensed trade as outlined in this catalog (carpentry, masonry) do not need to be registered apprentices to apply to the program, however, those registered as apprentices with the Department of Labor should provide the same proof as indicated above. Please note, a criminal background may negatively impact opportunities for employment.

All CEC students must submit their high school diploma or GED to the CEC prior to beginning school.





CARPENTRY APPRENTICESHIP

- 4 year program - 144 credit hours each year
- In-person class one night a week with 3 hours of online course work each week
- Apprentices work during the day to earn their on the job training hours*
- Accredited by NCCER
- \$2,200 yearly tuition (not including books or OSHA 30)

**Apprentices are responsible for finding their own employment*

ABOUT THE PROGRAM

Carpenters measure, cut and shape wood, plastic, fiberglass and drywall. Commercial and industrial carpenters construct, erect, install and repair structures and fixtures. These carpenters are involved in many different kinds of construction, from building to highways & bridges to power plants.

Carpentry I

Basic Safety; Introduction To Construction Math, Introduction To Construction Drawings, OSHA 30-Hour Outreach Training For Construction, Orientation To the Trade; Building Materials, Fasteners, & Adhesives; Hand & Power Tools; Intro To Construction Drawings, Specifications, & Layout; Floor Systems; Intro To Building Envelope Systems; Basic Stair Layout; Wall Systems; Ceiling Joist & Roof Framing

Carpentry II

Commercial Drawings, Roofing Applications, Thermal & Moisture Protection, Exterior Finishing, Cold Form Steel Framing, Drywall Installation, Drywall Finishing, Doors & Hardware

Carpentry III

Rigging equipment & Practices, Properties of Concrete, Reinforcing Concrete, Handling & Placing Concrete, Trenching & Excavation, Foundations & Slab on Grade, Vertical Formwork, Horizontal Formwork, Tilt up Wall Panels

Carpentry IV

Site Layout One: Distance Measurement & Leveling, Site Layout Two: Angular Measurement, Advanced Roof Systems, Advanced Wall Systems, Advanced Stair Systems Introduction To Light Equipment, Commercial Finish Work, Your Role in the Green Environment

ELECTRICAL APPRENTICESHIP

- 4 year program - 180 credit hours each year
- In-person class one night a week with 3 hours of online course work each week
- Apprentices work during the day to earn their on the job training hours*
- Accredited by NCCER
- \$2,500 yearly tuition (not including books or OSHA 30)

**Apprentices are responsible for finding their own employment*

ABOUT THE PROGRAM

Electricians install & maintain all of the electrical & power systems for our homes, businesses & factories. In large factories, electricians usually do maintenance work that is more complex. These kinds of electricians may repair motors, transformers, generators & electronic controllers on machine tools & industrial robots. They also advise management as to whether the continued operation of certain equipment could be hazardous.



Electrical I (E2)

Basic Safety, Introduction to Construction Math, Introduction to Construction Drawings, OSHA 30-Hour Outreach Training for Construction, Orientation to the Electrical Trade, Electrical Safety, Introduction to Electrical Circuits, Electrical Theory, Introduction to the National Electrical Code, Device Boxes, Hand Bending, Raceways & Fittings, Conductors & Cables, Basic Electrical Construction Drawings, Residential Electrical Services, Electrical Test Equipment

Electrical II (E2)

Alternating Current, Motors, Electric Lighting, Conduit Bending, Pull & Junction Boxes, Conductor Installations, Cable Tray, Conductor Terminations & Splices, Grounding & Bending, Circuit Breakers & Fuses, Control Systems & Fundamental Concepts

Electrical III (E2)

Load Calculations: Branch & Feeder Circuits, Conductor Selection & Calculations, Practical Applications of Lighting, Hazardous Locations, Overcurrent Protection, Distribution Equipment, Transformers, Commercial Electrical Services, Motor Calculations, Voice, Data & Video, Motor Controls

Electrical IV (E2)

Load Calculations: Feeders & Services, Health Care Facilities, Standby & Emergency Systems, Basic Electronic Theory, Fire Alarm Systems, Specialty Transformers, Advanced Controls, HVAC Controls, Heat Tracing & Freeze Protection, Motor Operation & Maintenance, Medium-Voltage Terminations/Splices, Special Locations, Fundamentals of Crew Leadership



HVAC APPRENTICESHIP

S2 license holders can work on any type of heating, cooling or piping equipment.

- 4 year program - 180 credit hours each year
- In-person class one night a week with 3 hours of online course work each week
- Apprentices work during the day to earn their on the job training hours*
- Accredited by NCCER
- \$2,500 yearly tuition (not including books, OSHA 30, or EPA certification)

**Apprentices are responsible for finding their own employment*

ABOUT THE PROGRAM

HVAC Technicians are always piecing things together as they install, maintain & repair heating, ventilation & air conditioning systems. HVAC covers it all! Motors, compressors, pumps, fans, thermostats & computerized switches control systems in residential, commercial & industrial structures. Technicians can also specialize in specific equipment, such as hydronics (water-based heating systems), solar panels or commercial refrigeration.

HVAC I (S2)

Basic Safety, Introduction To Construction Math; Introduction To Construction Drawings; OSHA 30-Hour Outreach Training For Construction; Introduction to HVAC; Trade Mathematics; Basic Electricity; Introduction to Cooling; Introduction to Heating; Intro to Air Distribution Systems; Basic Copper & Plastic Piping Practices; Soldering & Brazing; Basic Carbon Steel Piping Practices.

HVAC II (S2)

Trade Math Two; Trade Math Three; Plans & Specifications; Fabrication Two - Radial Line Development; Sheet Metal Duct Fabrication Standards; Bend Allowances; Soldering.

HVAC III (S2)

Fasteners, Hardware & Wiring; HVAC Controls; Control Circuit & Motor Troubleshooting; Troubleshooting Cooling; Troubleshooting Heat Pumps; Troubleshooting Gas Heating; Troubleshooting Oil Heating; Troubleshooting Accessories; Zoning, Ductless, Variable Refrigerant Flow Systems; Commercial Hydronic Systems; Steam Systems; Retail Refrigeration Systems; Customer Relations; Water Treatment.

HVAC IV (S2)

Indoor Air Quality; Energy Conservation Equipment; Building Management Systems; System Air Balancing; System Start Up & Shut Down; Construction Drawings & Specifications; Heating & Cooling System Design; Commercial & Industrial Refrigeration; Alternative & Specialized Heating & Cooling.



HVAC APPRENTICESHIP

D2 license holders install, service, repair, maintain warm air, air conditions or refrigeration systems.

- 2.5 year program - 180 credit hours each year
- In-person class one night a week with 3 hours of online course work each week
- Apprentices work during the day to earn their on the job training hours*
- Accredited by NCCER
- \$2,500 yearly tuition (not including books, OSHA 30, or EPA certification)

**Apprentices are responsible for finding their own employment*

ABOUT THE PROGRAM

HVAC Technicians are always piecing things together as they install, maintain & repair heating, ventilation & air conditioning systems. HVAC covers it all! Motors, compressors, pumps, fans, thermostats & computerized switches control systems in residential, commercial & industrial structures. Technicians can also specialize in specific equipment, such as hydronics (water-based heating systems), solar panels or commercial refrigeration.

HVAC I (D2) - 180 Credit Hours

Basic Safety, Introduction To Construction Math; Introduction To Construction Drawings; OSHA 30-Hour Outreach Training For Construction; Introduction to HVAC; Trade Mathematics; Basic Electricity; Introduction to Cooling; Introduction to Heating; Intro to Air Distribution Systems; Basic Copper & Plastic Piping Practices; Soldering & Brazing; Basic Carbon Steel Piping Practices.

HVAC II (D2) - 180 Credit Hours

Alternating Current, Compressors, Refrigerants & Oils, Leak Detection Evacuation Recovery & Charging, Metering Devices, Heat Pumps, Basic Maintenance, Chimneys, Vents & Flues, Sheet Metal Duct Systems, Fiberglass & Fabric Duct Systems, Commercial Airside Systems, Air Quality Equipment, & Introduction to Hydronic Systems.

HVAC III (D2) - 72 Credit Hours

International Mechanical Codes, NFPA Standards

PLUMBING APPRENTICESHIP

- 4 year program - 180 credit hours each year
- In-person class one night a week with 3 hours of online course work each week
- Apprentices work during the day to earn their on the job training hours*
- Accredited by NCCER
- \$2,500 yearly tuition (not including books or OSHA 30)

**Apprentices are responsible for finding their own employment*

ABOUT THE PROGRAM

Plumbers do much more than fix sinks & toilets in residential homes. They design & install piping systems that distribute water & remove waste from buildings, & connect heating & cooling systems. Plumbers have to be knowledgeable in water distribution, blueprint reading, local ordinances & regulations, mathematics, mechanical drawing, physics, welding & soldering.



Plumbing I (P2)

Basic Safety; Intro To Construction Math; Intro To Construction Drawings; OSHA 30-Hour Outreach Training For Construction; Introduction to Plumbing Profession; Plumbing Safety; Tools of Plumbing Trade; Intro to Plumbing Math; Intro to Plumbing Drawings; Plastic Pipe & Fittings; Copper Pipe Fittings; Cast Iron Pipe Fittings; Carbon Steel Pipe & Fittings; Intro to Plumbing Fixtures; Intro to DWV Systems; Intro to Water Distribution Systems

Plumbing II (P2)

Plumbing Math Two; Reading Commercial Drawings; Structural Penetrations, Insulation, & Fire-Stopping; Installation & Testing DWV Piping; Installing Roof, Floor & Area Drains; Installing Testing Water Supply Piping; Types of Valves; Installing Fixtures & Valves; Installing Water Heaters; Basic Electricity; Fuel Gas Systems

Plumbing III (P2)

Applied Math; Sizing & Protecting Water Supply Systems; Potable Water Supply Treatment; Types of Venting; Sizing DWV & Storm Systems; Sewage Pumps & Sump Pumps; Corrosive Resistant Waste Piping; Compressed Air; Service Plumbing

Plumbing IV (P2)

Business Principles for Plumbers; Water Pressure Booster & Recirculation Systems; Indirect & Special Waste; Hydronic & Solar Heating Systems; Codes; Private Water Supply Systems; Private Water Disposal Systems; Swimming Pools & Hot Tubs; Plumbing for Mobile Homes & Travel Trailers; Intro to Med Gas & Vacuum Systems; Soldering & Brazing; Basic Carbon Steel Piping Practices



PLUMBING P6 CERTIFICATE

- 1 year program - 180 credit hours each year
- Fully Online
- Apprentices work during the day to earn their on the job training hours*
- Accredited by NCCER
- \$2,500 yearly tuition (not including online access or OSHA 30)

**Apprentices are responsible for finding their own employment*

ABOUT THE PROGRAM

The holder of this license may perform the installation, replacement, alteration, or repair of sewer lines, storm water lines, water lines & services. This license DOES NOT permit any work on septic tank systems or inside a structure.

Plumbing (P6)

Introduction To Construction Math, Introduction To Construction Drawings, Basic Rigging, Basic Employability Skills, Introduction To Materials Handling, Introduction To Plumbing Math, Introduction To Plumbing Drawings, Intro To Drain, Waste & Vent (DWV) Systems, Introduction To Water Distribution Systems, Reading Commercial Drawings, Installing & Testing DWV Piping, Installing Roof, Floor & Area Drains, Applied Math, OSHA 30-Hour Outreach Training For Construction





SHEET METAL APPRENTICESHIP

- 4 year program - 144 credit hours each year
- In-person class one night a week and virtual class one night a week
- Apprentices work during the day to earn their on the job training hours*
- Accredited by NCCER
- \$2,350 yearly tuition* (not including books)

**Apprentices are responsible for finding their own employment*

**Students must have the ability to participate in virtual classes utilizing Zoom on either a desktop computer, laptop or tablet. Phones are not permitted. Devices must have audio and video capability.*

ABOUT THE PROGRAM

Sheet metal workers cut & mold sheets of metal into products for installing & repairing ventilation & air ducts. They also construct airplanes, automobiles & billboards. Most sheet metal fabrication shops are completely computerized, so sheet metal workers may be responsible for programming control systems on various pieces of equipment.

Sheet Metal I (SM2)

Basic Safety; Intro To Construction Math; Intro To Construction Drawings; OSHA 30-Hour Outreach Training For Construction; Intro To Sheet Metal Trade; Tools of the Trade; Introduction To Sheet Metal Layout & Processes Trade Math One; Fabrication One - Parallel Line Development; Installation of Ductwork; Installation of Air Distribution Accessories; Insulation; Architectural Sheet Metal

Sheet Metal II (SM2)

Trade Math Two; Trade Math Three; Plans & Specifications; Fabrication Two-Radial Line Development; Sheet Metal Duct Fabrication Standards; Bend Allowances; Soldering

Sheet Metal III (SM2)

Basic Piping Practices; Fiberglass Duct; Air Properties & Distribution; Air Systems; Principles of Airflow; Louvers, Dampers, & Access Doors; Comprehensive Plan & Specification Reading; Fabrication Three - Triangulation

Sheet Metal IV (SM2)

Advanced Architectural Sheet Metal; Shop Production & Organization; Air Testing & Balancing; Introduction To Welding Brazing & Cutting; Fume & Exhaust System Design; Fabrication Four; Intro Skills For the Supervisor



Apprentice Grading Policy

Final grades are weighted between classwork, online coursework & tests.

The weighted system calculates grade items as a percentage of a final grade worth 100%.

Test scores in the apprenticeship program are based on the percentage of correctly answered questions of total questions on exams. Grading schedule is as follows:

100% - 90%= A; 89% - 80% = B; 79% - 75%= C; 74 & below = F

Students with test scores under the passing percentage can elect to re-take the test.

Passing grade for the course is a 75% or higher.

Attendance Policy

Apprenticeship: Students are expected to attend all classes (virtual & in-person), thereby completing a minimum of 144–180 hours per year of classroom instruction. Students enrolled in a course using NCCERConnect will not be allowed any absences for online coursework & only two absences a year. These students will be issued a warning indicating that a 3rd absence may result in suspension from the program for the remainder of the year. Students may be required to complete make-up classes at their expense (calculated at the instructor's pay rate for the required hours) for proper completion of required course work. This policy will be strictly enforced.

Conduct Policy

The school reserves the right to dismiss any student whose conduct is deemed to be unsatisfactory. Unsatisfactory conduct may be theft, use of alcohol or illegal drugs on the school premises, possession of or under the influence of drugs or alcohol on school premises, failure to abide by school regulations, assault upon another student or a staff member, destruction of property, insubordination to a faculty or staff member, and disruption of classes or activities. Students who threaten or cause any student or staff member physical harm and students who willfully destroy school property will be immediately dismissed.



Certificates/Diplomas

All programs & courses are measured in clock Hours. Students who complete any individual course or group of courses will receive a transcript documenting Hours completed. Also, a certificate of completion will be issued upon completion of an apprenticeship level with number of Hours. Student will receive a diploma upon completion of the entire term of an apprenticeship. All tuition must be paid before a certificate, diploma or transcript can be issued.

Facilities

Centrally located in Plainville, Connecticut, the Construction Education Center, Inc. can be easily found off of Exit 32 from I-84. Our training facilities are 8,000 square feet & include two dedicated didactic training rooms & two hands on training rooms. Additionally, the CEC rents classroom space at locations throughout Connecticut in order to provide increased accessibility to the continuing education courses provided.

Employment Assistance

Construction Education Center, Inc. does not provide employment assistance, nor does it guarantee employment to any student.

Barriers to Employment

Students should have reliable transportation to both school and work. In order to obtain employment, students should be able to lift at least 50lbs. Students who would like to enter a trade that is licensed may not be issued a license if they have been found guilty or convicted as a result of an act which constitutes a felony.

Placement

The Construction Education Center does not provide housing or mental health services.

Class Scheduling Policy

CEC reserves the right to cancel any course or class due to circumstances beyond CEC's control, such as insufficient enrollment or inclement weather. In these instances, all tuition will be refunded or class rescheduled to a later date.



School Calendar

Each academic year begins the week after Labor Day unless otherwise authorized by the Director of Education. No classes are held on Thanksgiving or Memorial Day. A winter break takes place December 23, 2024 thru January 3, 2025.

Non-Discrimination Policy

The Construction Education Center does not discriminate on the basis of gender, race, color, nationality, ethnic origin, sexual orientation, age or other protected class in any aspect of administration or its educational & admission policies or practices.

Complaint Policy

The Construction Education Center does not have any policy nor does it act in any manner which discourages or prohibits the filing of inquiries or complaints regarding the school's operation with the Executive Director of Higher Education. A complaint should first be filed with the Director of Education. The Director will review the complaint & resolve the issue. If the complaint cannot be resolved, the student can formally submit a complaint with the Executive Director of Higher Education in writing to; Office of Higher Education, 450 Columbus Boulevard, Suite 707, Hartford, CT. 06103, by phone (860) 947-1816, or visit the website ct.gov/StudentComplaint.

Termination by School

The school reserves the right to terminate any student prior to course completion upon determination that the student is not complying with school conduct policies, failure to make any financial payments, unsatisfactory academic progress & attendance. A student who has been dismissed for unsatisfactory conduct may be considered for readmission at the discretion of the school administration according to the Appeal & Reinstatement policies found in the catalog. Students may also file official complaints according to the procedures described in the catalog under Student Complaint procedures. Tuition charges in cases of termination will be made in accordance with the school's cancellation & refund policy.

Withdrawal by Student

A student may voluntarily withdraw from the program & should notifying the CEC verbally or in writing. Please refer to refund policy. Appropriate transcripts will be provided.



Appeal & Reinstatement

The Director of Education will provide students an “open door” to discuss removal from participation in the Training Program. If a student offers information that could potentially reverse the removal decision, the information will be accepted and given due consideration by the Director of Education. If the student does not receive satisfaction at this level, a formal appeal by the student may be made to the Education Committee. If the complaint cannot be resolved, the student can formally submit a complaint to with the Office of Higher Education, in writing to 450 Columbus Boulevard, Suite 707, Hartford, CT. 06103, by phone (860) 947-1816, or visit the website ct.gov/StudentComplaint.

Refund Policy

Tuition will be refunded less \$250.00 up through two weeks prior to the first class date. Cancellations after this time will not be refunded. Cost of books, OSHA 30, and EPA certification (EPA certification is exclusive to HVAC) will not be refunded. Monies will be refunded within forty five days of notice of cancellation.

Course Costs

All tuition rates include a non-refundable \$250 registration fee.

Tuition for Electrical, HVAC, & Plumbing is \$2,500 per year*

Tuition for Carpentry is \$2,200 per year*

Tuition for Sheet Metal is \$2,350 per year*

****Employees of CT ABC member companies are entitled to 25% off tuition.***

Books vary per level & are dependent on publisher prices. Typically books in year 1 can be up to \$350. Books after that range between \$125-\$200.

OSHA 30 is \$180. If student does not complete OSHA 30, they have to sign up for it again at an additional cost.

EPA certification is \$200. If a student does not complete EPA certification and would like to sign up for it again may do so at an additional cost.

Prices are subject to change.

Methods of Payment

All methods of payment (cash, credit/debit card, check, certified check) are accepted. If paying cash, the amount must be the exact amount found on the Enrollment Agreement. Payment is due in full upon enrollment unless otherwise agreed to by the Director of Education.



SCHOOL STAFF



Marcie K. Addy
Director of Education
marcie@ctabc.org



Olivia Jacquier
Education Coordinator
olivia@ctabc.org



Linda Richard
Bookkeeper
bookkeeper@ctabc.org

Contact us to schedule
your admissions tour!



Construction Education Center, Inc.
35A Robert Jackson Way, Plainville, CT 06062
Phone: 860-529-5886 Fax: 860-846-6929
www.thinkconstruction.org