VOCATIONAL TRAINING INSTITUTE

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School Catalog

Effective January 1, 2026

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Mission

The mission of Vocational Training Institute is to provide students with the skills they need for successful careers in fast growing industries nationwide. We want to provide students with quality training and materials in order for them to become successful in their industries.

Welcome to Vocational Training Institute in Phoenix, Arizona

Heating, Ventilation, Air Conditioning, Electrical Controls, and Refrigeration (HVAC/R) technicians are currently in high demand. Millions of people rely on heating, air conditioning and refrigeration units in their homes and businesses. In addition, the restaurant, hotel, corporate and supermarket industry use HVAC/R technicians to handle their cooling, heating, refrigeration and electrical control systems such as those used to transport and store food, medicine and any other perishables.

Welders who keep up to date on the latest technology and get certified are in high demand with employers. Additionally, welding skills are highly transferable among employers and states. Once you are certified in one state, it is relatively easy to work in any other state. Welding skills are also transferrable among industries because the basic skills are the same across the board. There are few industries where welding is not involved in some part of their process. Welding is essential in industrial processes, construction, ship- and boatbuilding, auto manufacturing and repair, agricultural equipment, industrial maintenance and repair, oil and gas pipelines and a host of other industries.

Nationwide there are many high-tech industries that provide cutting-edge employment opportunities in the HVAC/R fields. VTI will prepare each student as an entry level technician, graduating with the necessary experience to get their “foot in the door” to companies that provide services in heating, air conditioning, refrigeration and welding.

Some of the career paths available for welders include Welder, assembler, machine operator, construction or manufacturing welding technicians or supervisors, welding inspector, engineer, robotics repair and maintenance, technical sales, project management and specialized welding areas.

VTI’s Welding Training Program provides training for entry level welding apprenticeship in the welding field, working with students to obtain skills needed to complete the required certifications for their welding careers.

Vocational Training Institute also has available bilingual training courses and reading materials, with curricula tailored to help the community with available courses that are in English and Spanish. Training modules are designed with real systems, and students learn how to perform real service procedures for maintenance and installation. Our instruction and training prepare students from a contractor’s point of view, and therefore after completion of the theory and hands-on, real-world training, students have the confidence to join the industry and begin working in the field.

History

Founded in 2010 by a U.S. Army veteran, Arizona Vocational Training Institute began with a vision to meet the HVAC/R industry's growing demand for skilled labor. After operating his own HVAC/R business across Virginia and Arizona, he partnered with industry experts, became a national publisher for HVAC/R textbooks, and launched a technical school dedicated to fast-paced, hands-on education for future technicians. In 2018, the current ownership purchased Arizona Vocational Training Institute for its quality instruction and history, and changed the name Arizona Vocational Training Institute to Vocational Training Institute.

Recognizing the need for flexible learning options, VTI expanded into welding, leveraging synergies between HVAC/R technicians and welders to help students master the fundamentals of the trades and enter the workforce quickly. In doing so, the programs at VTI teach the basic theory of HVAC/R and Welding, training students to perform service, maintenance, and installation, enabling them to obtain entry-level employment or apprenticeship opportunities in the HVAC/R and welding fields. The school also functions as an authorized testing center for the EPA Universal and R410A exams by ESCO Institute.

Vocational Training Institute proudly maintains an A+ rating by the Better Business Bureau, a testament to our commitment to quality education and student success.

Ownership

Vocational Training Institute has four shareholders: Laurence J. Zielke, Michael L. Howell, Luis Armendariz and Steven Russell.

Mr. Zielke holds his Bachelor of Arts from Centre College, a nationally ranked top-50 liberal arts college, and his Juris Doctorate from the Louis D. Brandeis School of Law at the University of Louisville; Mr. Zielke has worked in postsecondary education administration since 2006. Mr. Howell, in business since 1982, owns and operates construction companies, assisted living communities and trade schools. Mr. Armendariz, school president, has operated proprietary schools across the country for 25 years and has a master's in business administration (MBA) and holds a Global Project Management Certification. Mr. Russell owns and operates mechanical contracting companies, founding mechanical companies in Illinois, Iowa and Arizona.

Facility

VTI has one location in Phoenix, AZ, that provides all the hands-on training on-site. The school consists of approximately 28,468 square feet of classroom and lab space where live lectures incorporate instruction on actual systems and their components. There is a workshop lab with system modules for students to practice diagnostic and troubleshooting procedures to accurately service, maintain, and repair real equipment used in the industry. The students practice in a modern lab consisting of approximately 15,000 square feet.

Owners & Directors

Owner.....Laurence Zielke
Owner.....Michael Howell
Owner .....Luis Armendariz
Owner .....Steven Russell

Faculty & Staff

School President& SCO.....Luis Armendariz
School Vice President.....Geraldine Paez
Director of Education/HVAC Instructor.....Mike Frans
HVAC Instructor.....Andy Burns
HVAC Instructor.....Arno Paez
HVAC Lab Technician.....VACANT
Lead Instructor Welding.....Leon Zamora
Welding Program Director.....Jaydee Cole
Welding Instructor .....Domingo Salinas
Welding Lab Instructor.....Fernando Lopez
Welding Instructor.....Jody Bragdon
Welding Lab Tech.....Paige Mayo Young
Career Services Coordinator.....Gabriela Mendez
Career Services Coordinator/ Front Desk.....Cristina Mendez
School Certifying Official/Registrar.....Belinda Torres
Community Relations Director.....Stephen Davis
Admissions Representative.....James Payton
Admissions Representative.....Marshall Kaelin
Admissions Representative.....Jeffery Feger
Admissions Representative.....Brian Childs
Admissions Representative.....Ruben Medrano

Our Instructors

Michael Frans has been in the HVAC/R industry for over **14 years.** His experience includes new and existing installation for HVAC/R and plumbing systems and his roles have been as varied as helper, truck driver, apprentice mechanic, journeyman mechanic, master mechanic, master foreman and operations manager. He has achieved over the course of his career the following certifications and distinctions:

Master Refrigeration Certified
UA CFC Certification (type universal)
OSHA 500 and 510 Certified
Hazmat Certified
Master HVAC Certified
Trane Unitary Controls Certified
AMERCO Boiler Certified
Lochinvar Boiler Certified

Domingo Salinas has been a certified AWS welder for over **20 years** and has been teaching for 2 years. Domingo has worked on commercial structural projects in gyms as well as decorative design fabrication welding. AWS certifications include 3G, 4G, 6G, and MIG welding.

Jaydee Cole has been in the welding industry for **37 years**. He has worked at the Palo Verde Nuclear power plant, commercial ships, tugboats, and ocean structural welding. He is also AWS certified in 6G in pipe, plate, carbon steel, and aluminum, and AMSE in copper, nickel, carbon, aluminum, and stainless steel, and MIG and TIG certified.

Fernando Lopez is an Army veteran and has been in the welding industry for **12 years**. Fernando has worked on structural projects on HWY 101 and I-17. He is AWS Certified in Flux Core Dual Shield in all positions.

Andy Burns has been in the HVAC industry **15 years**. He has worked on residential and split system units for some of the largest contractors in the Phoenix area. He has been teaching for 5 years.

Arno Paez has worked in the HVAC industry for **7 years** and has taught and trained in the field for over 3 years.

Jody Bragdon served 11 years in the Army and has **23 years** of experience in the welding field. He's worked on industrial mining equipment, piping systems, structural steel, stainless, and aluminum stick MIG and TIG.

Admission Requirements

To be admitted, an applicant must meet the following requirements:

1. Be at least 18 years of age **or**
2. Be 17 years of age and have a parent or guardian co-sign the enrollment agreement

Prior to enrolling, prospective students receive information on the program and its courses and tour the school's facilities. There are on-site instructors to answer any questions about the program, helping prospective students decide whether to enroll.

If a prospective student decides to enroll in a program, he or she will complete an enrollment agreement and receive a school catalog that includes information about the school, course descriptions, and school policies. After reviewing the catalog, applicants who meet the admissions requirements outlined above will be admitted to VTI.

Vocational Training Institute does not discriminate on the basis of gender, sexual orientation, familiar status, religion, age, disability, race, color or nationality or ethnicity origin in the administration of its admission policies, educational policies, scholarship and/or other administered programs.

Programs

The school offers 6 programs and 1 workshop: the HVAC/R Entry Level Technician Training Program consisting of 200 clock hours; HVAC/R Technician Training Program consisting of 600 clock hours; Welding Program consisting of 287 hours; Process Pipping Welding consisting of 80 clock hours; Multi-Process Welding MIG, TIG, & Flux-Core Program consisting of 200 clock hours; the Basic Mig Welding workshop consisting of 20 clock hours; and the Welding Technician Program consisting of 600 clock hours.

VTI programs are ideal for anyone who seeks to start a new career in the HVAC/R (heating, ventilation, air conditioning, ventilation and refrigeration), whether commercial, industrial and residential, or in the welding industry, including fabrication, semi-conductor, steel and iron worker industries or to advance their skills in these fields. VTI programs provide extensive training in theory and hands-on labs at an accelerated, full-time pace. We understand that obtaining an education is a personal and long-term decision, which is why we offer affordable payment plans that allow students to spread out their payments over the duration of their program.

HVAC/R Entry Level Technician Training Program

200 Clock Hours / 4 Weeks – 200 Clock Hours / 10 Weeks (for evenings)

***Objective**:* The school's Entry Level Technician Training Program provides training for entry-level "apprentice to first-year journeyman" employment in the construction, maintenance, and Heating, Ventilation, Air Conditioning, and Refrigeration (HVAC/R) industries.

Description: Students who enroll in the course will acquire the skills and knowledge associated with the installation, maintenance and servicing of HVAC/R equipment in 200 clock hours over the course of approximately 4 weeks. Students will have a thorough understanding of the heating and cooling cycles and various phases of the fundamental principles of controls and electrical systems associated with HVAC systems. Students also will study the principles and concepts associated with the EPA Section 608 Universal Certification and, if successfully pass the EPA Universal examination, will graduate with their EPA Universal Certification, R410A Safety Certification, OSHA 10-Hour Survey Card, AWS VP flow & Horizontal Brazing Certification, A2L Certification and Vocational Training Institute Certificate of Completion Diploma.

Purpose: This program is designed to familiarize students with the basic principles of Heating, Ventilation, Air Conditioning and Refrigeration. VTI provides lecture lessons accompanied by textbooks and Power Point graphics in our classrooms, and hands-on laboratory activities and performance profiles completed in our HVAC/R lab. VTI emphasizes technical service, diagnostic and troubleshooting procedures of mechanical and electrical systems, providing a basic understanding of tools and instruments used in the HVAC/R field.

Topical Outline: This program consists of the following courses designed to assist students in developing their skills and knowledge in the HVAC/R field:

Course Number	Course Name	Hours
COR 108	**Basic Employability Skills**	**14**
COR 101	**Basic Safety & OSHA 10 Hour Safety**	**10**
COR 105	**Introduction to Construction Drawings**	**5**
COR 107	**Basic Communication Skills**	**4**
HVAC 310	**EPA608**	**24**
HVAC 301	**Introduction to HVAC Trade**	**10**
HVAC 307	**Introduction to Cooling**	**44**
HVAC 312	**R410A Safety/ (A2L) LGW Refrigerant Safety**	**10**
HVAC 306	**Basic Electricity**	**20**
HVAC 303	**Basic Copper and Plastic Piping Practices**	**6**

HVAC 304	**Soldering and Brazing**	**26**
HVAC 305	**Basic Carbon Steel Piping Practices**	**5**
HVAC 308	**Introduction to Heating**	**14**
HVAC 309	**Introduction to Air Distribution Systems**	**8**
		Total Hours: 200

COR 101: Basic Safety and OSHA 10 HR Safety – 10 Hours
This course complies with OSHA-10 training requirements and explains the safety obligation of workers, supervisors and managers to ensure a safe workplace. This course discusses the causes and results of accidents and the impact of accident costs.

COR 105: Introduction to Construction Drawings – 5 Hours
Students are introduced to the different types of plans and how they represent a finished building. This course shows the parts of blueprints in detail, including symbols, the title block, and gridlines.

COR 107: Basic Communication Skills Hours – 4 Hours
During this course, students are provided with techniques for communicating effectively with co-workers, employers, and potential employers through concepts of attitude, work ethic, teamwork, telephone skills, and interpersonal skills.

COR 108: Basic Employability Skills – 14 Hours
This course identifies the roles of individuals and companies in the construction industry. Students are introduced to critical thinking and problem-solving skills, as well as computer systems and their industry applications.

HVAC 301: Introduction to HVAC Trade – 10 Hours
This course provides an overview of basic concepts and environmental concerns related to heating, ventilation, and air conditioning in commercial and residential settings. Information is presented on the responsibilities and leadership abilities related to organizing and directing workers and operations.

HVAC 303: Basic Copper & Plastic Piping Practices – 6 Hours
This course teaches the applications, preparation, and joining of copper and plastic piping to: correctly measure the diameter of copper tubing, cut and ream copper tubing using and tubing cutter, correctly bend copper tubing, using bending tools, make a swage joint in a section of copper tubing, make and join flare connections, join two sections of tubing using a compression fitting, and cut and join two sections of plastic pipe using appropriate fittings.

HVAC 304: Soldering and Brazing – 26 Hours
Tools, materials, and safety precautions are covered, and step-by-step procedures for soldering and brazing are depicted.

HVAC 305: Basic Carbon Steel Piping Practices – 5 Hours
During this course, the student is introduced to methods and procedures used in ferrous metal piping practices, including identifying types of carbon steel pipe, pipe sizes and weights, and pipe fittings, as well as learning to cut, ream, thread and assemble steel pipe.

HVAC 306: Basic Electricity – 20 Hours
Students are introduced to electricity, electrical circuits, and the electrical components of HVAC systems. Students us Ohm's law to calculate current, voltage and resistance; use the power formula to calculate how much power is consumed by a circuit; and understand how to use a multimeter and ammeter.

HVAC 307: Introduction to Cooling – 44 Hours
This course provides an overview of the basic refrigeration cycle and the major components, accessories, and control devices of a cooling system. Students learn to use temperature and pressure measuring instruments to make readings at key points in the refrigeration cycle while understanding the temperature and pressure relationships at key points in the refrigeration cycle. Students learn to identify compressors, condensers, evaporators, metering devices, controls and accessories. Students also understand how to use a sight glass and moisture/liquid indicator to determine the operating conditions of an air conditioning system and service valves to gain access to an air conditioning system in order to measure pressures using a gauge manifold set.

HVAC 308: Introduction to Heating – 14 Hours
In this course, students are taught the operation and maintenance of gas, oil, and electric furnaces while learning the components of a gas furnace and oil furnace and the purpose and function of each component. Students can use a manometer to measure and adjust manifold pressure on a gas furnace, including filter replacement, cleaning of components and temperature measurements. Students are able to identify symptoms of combustion problems in an oil furnace and learn to perform preventative maintenance procedures on an oil furnace.

HVAC 309: Introduction to Air Distribution Systems – 8 Hours
Students are taught the properties of air distribution systems in order to become familiar with the operation, layouts, types of equipment, and installation practices used for air distribution systems installed in the different regions of the country. Students learn to assemble duct and fittings and assemble flexible duct. Students also learn installation of insulation and vapor barriers on metal ducts while explaining the installation of fittings and transitions used in duct systems, and the installation of diffusers, registers, and grills used in duct systems. Students can use a manometer to measure static pressure, velocity pressure and total pressure in a duct system. The use of velometers to measure the velocity of airflow at the output of air system supply diffusers and registers is also covered.

HVAC 310: EPA 608 – 24 Hours
EPA-Approved Section 608 certification is needed to service building air conditioning and refrigeration systems. Technicians receiving a Universal Certification are certified to recover refrigerant during the maintenance, service or repair of small appliances, high- pressure equipment and low-pressure equipment. Upon successful completion, students are certified to work on any type of air conditioning and refrigeration equipment except for motor vehicle air conditioning.

HVAC 312: R410A Safety – 10 Hours
Students study to receive their R410A Safety Certification.

HVAC/R Technician Training

600 Clock Hours / 24 weeks – 600 Clock Hours / 30 Weeks (for evenings)

Objective: The school's HVAC/R Technician Training Program provides training for entry level "apprentice to first-year journeyman" employment in the construction maintenance and Heating, Ventilation, Air Conditioning and Refrigeration (HVAC/R) industries.

Description: Students who enroll in the course will acquire the skills and knowledge associated with the installation, maintenance and servicing of HVAC/R equipment in 600 clock hours over the course of approximately 24 weeks. Students will have a thorough understanding of the heating and cooling cycles and various phases of the fundamental principles of controls and electrical systems associated with HVAC systems. Students in this program will receive more troubleshooting and installation technique time in the hands-on environment of the lab. Students also will study the principles and concepts associated with the EPA Section 608 Universal Certification and, if successfully pass the EPA Universal examination, will graduate with their EPA Universal Certification, R410A Safety Certification, OSHA 10-Hour Survey Card, and Vocational Training Institute Diploma.

Purpose: This program is designed to familiarize students with the basic principles of Heating, Ventilation, Air Conditioning and Refrigeration. VTI provides lecture lessons accompanied by textbooks and Power Point graphics in our classrooms, and hands-on laboratory activities and performance profiles completed in our HVAC/R lab. VTI emphasizes technical service, diagnostic and troubleshooting procedures of mechanical and electrical systems, providing a basic understanding of tools and instruments used in the HVAC/R field.

***Topical Outline*:** This program consists of the following courses designed to assist students in developing their skills and knowledge in the HVAC/R field:

Course Number	Course Name	Hours
HVAC 401	**Mechanical Refrigeration Components & Electrical Controls Functions (Control Circuit and Motor Troubleshooting)**	**91**
HVAC 402	**Electrical Distribution, Controls Configuration & Operational Function (Building Management Systems)**	**150**
HVAC 403	**Instruments, Devices & Tools Application for Mechanical & Electrical System Troubleshooting (Fasteners, Hardware, and Wiring Terminations and Energy Conservation Equipment)**	**37**
HVAC 404	**R-410A Certification Exam Preparation (Refrigerants and Oils)**	**12**
HVAC 405	**Refrigerant Transition & Recovery certification/CFC Universal License for EPA, Section 608 (Leak Detection, Evacuation, Recovery, and Charging)**	**20**
HVAC 406	**Technical Service Procedures for Troubleshooting Mechanical & Electrical Systems (Troubleshooting Cooling)**	**38**
HVAC 407	**Heating Systems- Heat Pumps, Electric Heat, Gas Heat and Oil Heat (Troubleshooting Gas Heating, Troubleshooting Heat Pumps, Troubleshooting Oil Heating)**	**70**
HVAC 408	**Introduction to Chillers (Introduction to Hydronic Systems)**	**24**
HVAC 409	**Introduction to Commercial Refrigeration (Commercial/Industrial Refrigeration)**	**60**

HVAC 410	**Introduction to Commercial and Industrial Control Functions & Principals for Three-Phase Electrical Systems (HVAC Controls)**	**28**
HVAC 411	**Construction Blueprint Reading (Construction Drawings and Specifications)**	**20**
HVAC 412	**Introduction to Solar Photovoltaic (Alternative and Specialized Heating and Cooling Systems)**	**50**
		Total Hours: 600

COURSE 101: Mechanical Refrigeration Components & Electrical Controls Functions (Control Circuit and Motor Troubleshooting)– 91 Hours
The first course in the program teaches the fundamentals of heating, ventilation, air conditioning, refrigeration, electrical controls, and indoor air quality. It is designed to familiarize the student with the basic principles of heating, refrigeration, and electricity as applied to HVAC/R systems. An emphasis is placed on the function and installation of heating and refrigeration equipment components and controls.

COURSE 102: Electrical Distribution, Controls Configuration & Operational Function (Building Management Systems)– 150 Hours
This course will teach about the function of electrical controls, the interpretation of electrical diagrams and symbols, and the use of instruments for electrical troubleshooting procedures. This course provides both theory and hands-on experience with specially designed electrical control laboratories.

COURSE 103: Instruments, Devices & Tools Application for Mechanical & Electrical System Troubleshooting (Fasteners, Hardware, and Wiring Terminations and Energy Conservation Equipment)– 37 Hours
In this course, the student will learn about instrumentation in refrigeration systems, as well as air systems, with practice using the tools and devices that are essential for both electrical and mechanical troubleshooting procedures. The student will work with real systems to demonstrate proper instrumentation.

COURSE 104: **R-410a Certification Exam Preparation (Refrigerants and Oils)– 12 Hours**
This course prepares the student to become certified with the R-410a refrigerant universal license. This license is a requirement to work with the refrigerant R-410a, which will allow the student to perform real procedures in service and maintenance for refrigeration systems using this particular refrigerant.

COURSE 105: Refrigerant Transition & Recovery Certification/CFC Universal License for EPA, Section 608 (Leak Detection, Evacuation, Recovery, and Charging) – 20 Hours
This course prepares students to pass the Certification Exam, Section 608, for the E.P.A (Environmental Protection Agency). This universal license is a requirement by the Federal Government in accordance with the Clean Air Act, which approves technicians to perform service and maintenance procedures for systems of air conditioning and refrigeration. VTI will help students obtain this license with the necessary information through training materials and hands-on labs in recovery, pressurization, and handling of the refrigerants.

COURSE 106: Technical Service Procedures for Troubleshooting Mechanical & Electrical Systems (Troubleshooting Cooling)– 38 Hours
Gain experience and practice on real systems with the various labs made available for this course. Learn to identify problems of electrical and mechanical systems, and apply the proper instrumentation technics to accurately perform service procedures.

COURSE 107: Heating Systems- Heat Pumps, Electric Heat, Gas Heat and Oil Heat (Troubleshooting Gas Heating, Troubleshooting Heat Pumps, Troubleshooting Oil Heating)– 70 Hours

After taking this course, the student will have the knowledge for mechanical and electrical controls; operating principals of heat pumps, gas furnaces, boilers, and electrical heating systems. The student will practice recognizing and explaining the purpose of major components in electrical heating systems with a thorough understanding of the schematics, symbols, and sequence of operation.

COURSE 108: Introduction to Chillers (Introduction to Hydronic Systems) – 24 Hours

This course will teach the student about chiller systems and the difference of components and refrigerants for high pressure and low-pressure systems. The student will practice preventative maintenance on a cooling tower, as well as the installation of the air-cooling tower.

COURSE 109: Introduction to Commercial Refrigeration (Commercial/Industrial Refrigeration) – 60 Hours

This course gives an overall understanding of walk-in coolers, reach-in coolers, mechanical and electrical component functions, and recognition and installation procedures. This will be done through theoretical and practical hands-on experience in actual walk-in coolers, freezers, reach-in refrigeration units, and electrical and mechanical troubleshooting techniques using the proper instruments to do the service.

COURSE 110: Introduction to Commercial and Industrial Control Functions & Principals for Three-Phase Electrical Systems – 28 Hours

The student will review and practice the basic fundamentals of electricity that apply to three phase electrical systems. The practice labs for this course are designed to allow the student to interpret three phase electrical diagrams for installing and wiring electrical controls, as well as troubleshoot and test electrical circuits with proper instrumentation technics.

COURSE 111: Construction Blueprint Reading – 20 Hours

The student will be familiarized with blueprint reading with practice interpreting symbols for building drawings. The course will provide labs for students to practice dimensioning and identifying mechanical and electrical drawings.

COURSE 112: Introduction to Solar Photovoltaic – 50 Hours

This course will teach the theory of solar energy and offer the student to gain experience in the wiring and installation of solar panels for photovoltaics systems. Students will practice design configurations, electrical wiring, module assembly, and functions of components, service, maintenance, and troubleshooting procedures.

Welding Program

287 Clock Hours / 6 Weeks – 287 Clock Hours / 14 Weeks (for evenings)
VTI provides students the opportunity to acquire AWS Certification through a third-party testing facility, "Complete Fusion Welding".

Objective: The school's Welding Program provides training for entry-level welding apprenticeships in the welding field, working with students to obtain the skills needed to complete the required certifications in SMAW (Carbon Steel) for their welding careers.

***Description*:** Students who enroll in the welding program acquire the skills and knowledge associated with a variety of welding techniques and practices. Students learn over the 287 clock hours to perform many types of welding positions such as 1F, 2F, 3F, and 4F. Students also learn techniques for 1G, 2G, 3G, and 4G welding positions. In addition, students receive the OSHA 10 Safety Survey Card as well as their Vocational Training Institute Diploma.

***Purpose*:** This program introduces students to fundamentals of the welding trade. VTI provides lecture lessons accompanied by textbooks and Power Point presentations in our classrooms and hands on welding in our laboratory. VTI emphasizes welding practices and procedures to exemplify the most current welding practices with emphasis on safety.

***Topical Outline*:** This program consists of the following courses designed to assist students in developing their skills and knowledge in the welding trade:

Course Number	Course Name	Hours
COR101	**Basic Safety & OSHA 10 Hour Safety**	**10**
COR105	**Introduction to Construction Drawings**	**5**
COR107	**Basic Communication Skills**	**5**
COR108	**Basic Employability Skills**	**17**
WELD101	**Introduction to Welding**	**5**
WELD102	**Oxyfuel Cutting**	**20**
WELD105	**Base Metal Preparations**	**12**
WELD106	**Weld Quality**	**10**
WELD 108	**SMAW Electrodes and Uses**	**3**
WELD109	**SMAW Beads and Fillet Welds**	**72**
WELD110	**Joint Fit-Up and Alignments**	**8**
WELD 111	**SMAW-Groove Welds with Backing**	**60**
WELD 112	**SMAW-Grove Welding Open Root Welds Plate**	**60**

Total Hours: 287

COR101: Basic Safety and OSHA 10 HR Safety – 10 Hours
This course complies with OSHA-10 training requirements and explains the safety obligation of workers, supervisors and managers to ensure a safe workplace. This course discusses the causes and results of accidents and the impact of accident costs.

COR 105: Introduction to Construction Drawings – 5 Hours
Students are introduced to the different types of plans and how they are represented a finished building. This course shows the parts of blueprints in detail, including symbols, the title block, and gridlines with special emphasis on welding blueprints and symbols.

COR 107: Basic Communication Skills – 5 Hours
Students are provided with techniques for communicating effectively with co-workers, employers and potential employees, through concepts of attitude, work ethic, teamwork, telephone skills and interpersonal skills.

COR 108: Basic Employability Skills – 17 Hours
This course identifies the roles of individuals and companies in the welding and construction industry. Students are introduced to critical thinking and problem-solving skills, and computer systems and their industry applications.

WELD 101: Introduction to Welding – 5 Hours
Students are provided with basic knowledge in welding practices, the trade of welding and apprentice programs. Student will also be oriented to the welding laboratory and facilities and learn the different processes in welding applications and identification of hazards in the welding industry.

WELD 102: Oxyfuel Cutting – 20 Hours
This module introduces students to the methods and procedures of the oxyfuel cutting process. Students will learn safety procedures, equipment setup, fuel gas types, flow rates, and techniques. Hands-on practice and the completion of cutting-related performance tasks complete the learning process.

WELD 105: Base Metal Preparations – 12 Hours
Introduces the students to the methods and procedures related to preparing base metal for welding. Students will learn safety procedures, welding joint preparation, specifications, identification of physical characteristics, mechanical properties, and cleaning techniques related to common base metals.

WELD 106: Weld Quality – 10 Hours
Introduces students to the methods and procedures to produce high-quality welds. Students will become familiar with welding codes and provisions, discontinuities, examination practices, and weld procedure testing. Students will then complete a visual inspection on a fillet and/or groove weld and complete an inspection report to document the results.

WELD 108: SMAW Electrodes and Uses – 3 Hours
Introduces the students to the selection, classification, and use of electrodes for arc welding. Students will become familiar with the various types of electrodes, their uses, identification, handling, and proper storage.

WELD 109: SMAW Beads and Fillet Welds – 72 Hours
Introduces the methods and procedures related to SMAW beads and fillet welding. Students will learn safety procedures, equipment setup, how to strike an arc, and how to produce weave beads and stringer beads. Hands on practice and the completion of welding related performance tasks complete the learning process.

WELD 110: Joint Fit-Up and Alignments – 8 Hours
Introduces the students to the techniques and procedures to perform proper joint fit-up and inspection. Students will become familiar with using codes, specifications, special tools, and measuring devices to ensure quality during welding.

WELD 111: SMAW-Groove Welds with Backing – 60 Hours
Introduces the students to the method of procedures related to the SMAW groove welding process. Students will learn safety procedures, welding joint preparation, specifications, identification of physical characteristics, mechanical properties, and cleaning techniques of SMAW groove welds.

WELD 112: SMAW-Groove Welding Open Root Welds Plate – 60 Hours
Introduces students to the methods and procedures of SMAW open-root groove welding process. Students will learn about safety procedures and groove joint preparation, and practice open-root groove welding techniques.

Multi-Process Welding MIG, TIG, and Flux-Core Program

200 Clock Hours / 4 Weeks – 200 Clock Hours / 10 Weeks (for evenings)

***Objective*:** The school's Multi- Process Welding MIG, TIG, and Flux-Core Welding Program provides training for students to have a variety of options to work in the welding industry. Some of the welding fields the students can choose from are iron workers, fabrication, structural, sheet metal shops, and off-road vehicle companies.

***Description*:** Students will acquire the skills and knowledge associated with multiple welding processes and a variety of welding techniques and practices in the following welding processes: MIG (GMAW), TIG (GTAW), and Flux-Core (FCAW). In the 200 clock hour program students will perform base metal prep, oxyfuel cutting and weld build-up, "T" joints and "groove weld. In the flat, horizontal, vertical, and overhead positions. In addition, students receive their Vocational Training Institute Diploma.

***Purpose*:** This program introduces students to fundamentals of the welding trade. VTI provides lecture lessons accompanied by textbooks and Power Point presentations in our classrooms and hands on welding in our laboratory. VTI emphasizes welding practices and procedures to exemplify the most current welding practices with emphasis on safety.

***Topical Outline*:** This program consists of the following courses designed to assist students in developing their skills and knowledge in the welding trade:

Course Number	Course Name	Hours
WELD 201	**Reading Welding Detail Drawings**	**10**
WELD 202	**Properties of Metal**	**10**
WELD 203	**MIG (GMAW) Equipment & Filler Metals**	**6**
WELD 204	**MIG (GMAW) – Plate Weldments**	**60**
WELD 205	**Flux-Core (FCAW) Equipment & Filler Metals**	**6**
WELD 206	**Flux-Core (FCAW) – Plate Weldments**	**40**
WELD 207	**TIG (GTAW) Equipment & Filler Metals**	**8**
WELD 208	**TIG (GTAW) – Plate Weldments**	**60**
		Total Hours: 200

WELD 201: Reading Welding Detail Drawings – 10 Hours
Identifies and explains the different types of weld symbols from fillet welds, groove welds, length of welds, pitch of welds, depth of welds, and non-destructive examination symbols. Explains how to read welding symbols on drawings, prints, and weld specifications.

WELD 202: Properties of Metal – 10 Hours
Explains physical characteristics, mechanical properties, composition, and classification of metals. Identifies the various standard metal forms and structural shapes. Covers the common non-destructive testing (NDT) and destructive testing. Explains preheating, interpass temperature control, and post-heating procedures. Covers the equipment used to heat-treat metals.

WELD 203: MIG (GMAW) Equipment and Filler Metals – 6 Hours
Explains MIG safety. Identifies and explains the MIG consumables, equipment, filler metals, parts, and shielding gases used to perform the MIG welding process. Explains the different transfer modes. Explains and performs set up, use, storage, and maintenance of MIG equipment.

WELD 204: MIG (GMAW) – Plate Weldments – 60 Hours
Describes and performs weldments on A36-grade metal. The weldments will be performed using 70-series filler metal. Also explains and performs multiple-pass MIG welding on weld build-ups, “T” joints, and “V” groove coupons. The “V”- groove coupons will be visually inspected, and a destructive test will be performed to evaluate welding quality. All welding will be performed and inspected in accordance with AWS standards.

WELD 205: Flux-Cored (FCAW) Equipment and Filler Metals – 6 Hours
Explain Flux-Cored safety. Identify and explain the Flux-Cored consumables, equipment, filler metals, parts, and shielding gases used to perform the Flux-Cored welding process. Explains and performs the setup, use, storage, and maintenance of Flux-Cored equipment.

WELD 206: Flux-Cored (FCAW) - Plate Weldments – 40 Hours
Describes and performs weldments on A36-grade metal. The weldments will be performed using 71T series filler metal and a shielding gas for the Flux-Cored process. Also performs multiple-pass Flux-Cored welding on weld build-up, “T” joint, and “V” groove coupons. The “V”- groove coupons will be visually inspected, and a destructive test will be performed to evaluate welding quality. All welding will be performed and inspected in accordance with AWS standards.

WELD 207: TIG (GTAW) Equipment and Filler Metals – 8 Hours
Explain TIG safety. Identify and explain the use of TIG consumables, equipment, filler metals, parts, and shielding gases to perform the TIG welding process. Explains and performs setup, use, storage, and maintenance of TIG equipment.

WELD 208: TIG (GTAW) – Plate Weldments – 60 Hours
Describes and performs weldments on A36 metal. The weldments will be performed using 70- and 300-series filler metals. The TIG training focuses on steel and stainless-steel welding. Also explains and performs multiple-pass TIG welding on weld build-ups, “T” joints, and “V” groove coupons. The “V”- groove coupons will be visually inspected, and a destructive test will be performed to evaluate welding quality. All welding will be performed and inspected in accordance with AWS standards.

Welding Technician Program

600 Clock Hours / 5 Weeks

VTI provides students with the opportunity to acquire AWS Certification through a third-party testing facility. "Complete Fusion Welding".

***Objective*:** The school's Welding Technician Program provides training for students to have a variety of opportunities in the welding industry. Some of the welding fields the students can choose from are iron workers, manufacturing shops, structural shops, sheet metal shops, and off-road vehicle companies.

***Description*:** Students will acquire the skills and knowledge associated with multiple welding processes and a variety of welding techniques and practices in the following welding processes: SMAW, MIG (GMAW), TIG (GTAW), and Flux-Core (FCAW). In the 600 clock hour program students will perform weld build-up, "T" joints and "groove weld. In the flat, horizontal, vertical, and overhead positions. In addition, students receive their Vocational Training Institute Diploma.

***Purpose*:** This program introduces students to fundamentals of the welding trade. VTI provides lecture lessons accompanied by textbooks and Power Point presentations in our classrooms and hands on welding in our laboratory. VTI emphasizes welding practices and procedures to exemplify the most current welding practices with emphasis on safety.

Topical Outline: This program consists of the following courses designed to assist students in developing their skills and knowledge in the welding trade:

Course Number	Course Name	Hours
COR 101	**Basic Safety & OSHA 10 Hour Safety**	**10**
COR 105	**Introduction to Construction Drawings**	**5**
COR 107	**Basic Communication Skills**	**5**
COR 108	**Basic Employability Skills**	**17**
WELD 101	**Introduction to Welding**	**5**
WELD 102	**Oxyfuel Cutting**	**20**
WELD 105	**Base Metal Preparations**	**12**
WELD 106	**Weld Quality**	**10**
WELD 108	**SMAW Electrodes and Uses**	**3**

WELD 109	**SMAW Beads and Fillet Welds**	**72**
WELD 110	**Joint Fit-Up and Alignments**	**8**
WELD 111	**SMAW-Groove Welds with Backing**	**78**
WELD 112	**SMAW-Grove Welding Open Root Welds Plate**	**78**
WELD 201	**Reading Welding Detail Drawings**	**10**
WELD 202	**Properties of Metal**	**10**
WELD 203	**MIG (GMAW) Equipment & Filler Metals**	**6**
WELD 204	**MIG (GMAW) – Plate Weldments**	**78**
WELD 205	**Flux-Cored (FCAW) Equipment & Filler Metals**	**6**
WELD 206	**Flux-Cored (FCAW) – Plate Weldments**	**58**
WELD 207	**TIG (GTAW) Equipment & Filler Metals**	**8**
WELD 208	**TIG (GTAW) – Plate Weldments**	**78**
TECH 110	**Capstone Final Project**	**23**
		Total Hours: 600

WELD 101: Introduction to Welding – 5 Hours
Students are provided with basic knowledge of welding practices, the welding trade, and apprentice programs. Students will also be oriented to the welding laboratory, including its facilities, and will learn about different welding processes and the identification of hazards in the welding industry.

WELD 102: Oxyfuel Cutting – 20 Hours
This module introduces students to the methods and procedures of oxyfuel cutting. Students will learn safety procedures, equipment setup, fuel gas types, flow rates, and techniques. Hands-on practice and the completion of cutting-related performance tasks complete the learning process.

WELD 105: Base Metal Preparations – 12 Hours
Introduces students to the methods and procedures for preparing base metals for welding. Students will learn safety procedures, welding joint preparation, specifications, the identification of physical characteristics and mechanical properties, and cleaning techniques related to common base metals.

WELD 106: Weld Quality – 10 Hours
Introduces students to the methods and procedures to produce high-quality welds. Students will become familiar with welding codes and provisions, discontinuities, examination practices, and weld procedure testing. Students will then conduct a visual inspection of a fillet and/or groove weld and complete an inspection report documenting the results.

WELD 108: SMAW Electrodes and Uses – 3 Hours
Introduces the students to the selection, classification, and use of electrodes for arc welding. Students will become familiar with the various types of electrodes, their uses, identification, handling, and proper storage.

WELD 109: SMAW Beads and Fillet Welds – 72 Hours
Introduces the methods and procedures related to SMAW beads and fillet welding. Students will learn safety procedures, equipment setup, how to strike an arc, and how to produce weave beads and stringer beads. Hands-on practice and the completion of welding-related performance tasks complete the learning process.

WELD 110: Joint Fit-Up and Alignments – 8 Hours
Introduces students to the techniques and procedures for proper joint fit-up and inspection. Students will become familiar with the use of codes, specifications, special tools, and measuring devices to ensure quality in welding.

WELD 111: SMAW-Groove Welds with Backing – 78 Hours
Introduces students to the procedures for the SMAW groove welding process. Students will learn safety procedures, welding joint preparation, specifications, the identification of physical characteristics and mechanical properties, and cleaning techniques for SMAW groove welds.

WELD 112: SMAW-Groove Welding Open Root Welds Plate – 78 Hours
Introduces students to the methods and procedures of SMAW open-root groove welding process. Students will learn about safety procedures and groove joint preparation, and practice open-root groove welding techniques.

WELD 201: Reading Welding Detail Drawings – 10 Hours
Identifies and explains the different types of weld symbols from fillet welds, groove welds, length of welds, pitch of welds, depth of welds, and non-destructive examination symbols. Explains how to read welding symbols on drawings, prints, and weld specifications.

WELD 202: Properties of Metal – 10 Hours
Explains physical characteristics, mechanical properties, composition, and classification of metals. Identifies the various standard metal forms and structural shapes. Covers the common non-destructive testing (NDT) and destructive testing. Explain preheating, interpass temperature control, and post-heating procedures. Covers the equipment used to heat-treat metals.

WELD 203: MIG (GMAW) Equipment and Filler Metals – 6 Hours
Explains MIG safety. Identifies and explains the MIG consumables, equipment, filler metals, parts, and shielding gases used to perform the MIG welding process. Explains the different transfer modes. Explains and performs set up, use, storage, and maintenance of MIG equipment.

WELD 204: MIG (GMAW) – Plate Weldments – 78 Hours
Describes and performs weldments on A36-grade metal. The weldments will be performed using 70-series filler metal. Also explains and performs multiple-pass MIG welding on weld build-ups, “T” joints, and “V” groove coupons. The “V”- groove coupons will be visually inspected, and a destructive test will be performed to evaluate welding quality. All welding will be performed and inspected in accordance with AWS standards.

WELD 205: Flux-Cored (FCAW) Equipment and Filler Metals – 6 Hours
Explain Flux-Cored safety. Identify and explain the Flux-Cored consumables, equipment, filler metals, parts, and shielding gases used to perform the Flux-Cored welding process. Explains and performs the setup, use, storage, and maintenance of Flux-Cored equipment.

WELD 206: Flux-Cored (FCAW) - Plate Weldments – 58 Hours
Describes and performs weldments on A36-grade metal. The weldments will be performed using 71T series filler metal and a shielding gas for the Flux-Cored process. Also performs multiple pass Flux-Cored welding on weld build-up, “T” joint, and “V” groove coupons. The “V”- groove coupons will be visually inspected, and a destructive test will be performed to evaluate welding quality. All welding will be performed and inspected in accordance with AWS standards.

WELD 207: TIG (GTAW) Equipment and Filler Metals – 8 Hours
Explain TIG safety. Identify and explain the use of TIG consumables, equipment, filler metals, parts, and shielding gases to perform the TIG welding process. Explains and performs setup, use, storage, and maintenance of TIG equipment.

WELD 208: TIG (GTAW) – Plate Weldments – 78 Hours
Describes and performs weldments on A36 metal. The weldments will be performed using 70- and 300-series filler metals. The TIG training focuses on steel and stainless-steel welding. Also explains and performs multiple-pass TIG welding on weld build-ups, “T” joints, and “V” groove coupons. The “V”-groove coupons will be visually inspected, and a destructive test will be performed to evaluate welding quality. All welding will be performed and inspected in accordance with AWS standards.

TECH 110: Capstone Final Project – 23 Hours
Students will create a project of their choice using one or more welding methods, to be completed within 23 hours. Various metals will be provided, as well as the tools needed to complete the final project.

Basic Mig Welding Workshop

20 Clock Hours / 2 Days – 20 Clock Hours / 5 Days (for evenings)
***VTI provides students with the opportunity to acquire AWS Certification through a third-party testing facility. "Complete Fusion Welding". ***

Course Number	Course Name	Hours
WELD 101	Introduction to Welding	5
MIGWS 101	Welding Safety & Protective Equipment	0.50
MIGWS 102	Variations of Metals and Environment	0.50
WELD 203	MIG (GMAW) Equipment & Filler Metals	6
MIGWS 103	Position Testing 1G and 2G	5
MIGWS 104	Capstone/Final Project	3
		Total Hours: 20

WELD 101: Introduction to Welding – 5 Hours
Students are provided with basic knowledge of welding practices, the welding trade, and apprentice programs. Students will also be oriented to the welding laboratory, including its facilities, learn the different welding processes, and identify hazards in the welding industry.

MIGWS 101 Welding Safety & Protective Equipment – 0.50 Hours
Students are provided with grinding safety goggles, welding gloves, and a welding hood. Students will be oriented on how to properly wear safety equipment and its various uses.

MIGWS 102 Variations of Metals and Environment – 0.50 Hours
Introduces students to the methods and procedures for preparing metal for MIG welding. Preparation for joint welding, such as T-Joint and Overlap joints. identification of physical characteristics and cleaning techniques through grinding.

WELD 203 MIG (GMAW) Equipment & Filler Metals – 6 Hours
Explains MIG safety. Identifies and explains the MIG consumables, equipment filler metals, parts, and shielding gases used to perform MIG welding process. Explains the different transfer modes. Explains and performs set up, use, storage, and maintenance of MIG equipment.

MIGWS 103 Position Testing 1G and 2G – 5 Hours
Students will be provided with 5 T-Joints and 5 Overlap coupons for 1G and 2G testing. Coupons will be inspected by a third party, "Complete Fusion Welding" for American Welding Society Approval.

MIGWS 104 Capstone/ Final Project – 3 Hours
Students will create a project of their choice using one or more welding methods, to be completed within 23 hours.

Process Piping Welding Training Program

80 Clock Hours/ 2 Weeks – 80 Clock Hours / 4 Weeks (for evenings)

***VTI provides students the opportunity to acquire AWS Certification through a third-party testing facility, "Complete Fusion Welding". ***

***Objective*:** The school's Process Piping Welding Program provides training for students to become entry-level welders and enter the welding field, or for experienced welders to advance their skills in the welding trade with stainless steel materials.

Description: Students will acquire the skills and knowledge associated with a variety of welding techniques and practices in the GTAW process to weld piping and components in the food, beverage, dairy, pharmaceutical manufacturing, and Industrial industries.

Purpose: This program introduces students to the fundamentals of process piping in the welding trade. VTI provides lecture lessons accompanied by textbooks and PowerPoint presentations in our classrooms, as well as hands-on welding in our laboratory. VTI emphasizes current welding practices and procedures, with an emphasis on safety.

***Topical Outline*:** This program consists of the following courses designed to assist students in developing their skills and knowledge in the welding trade:

Course Number	Course Name	Hours
WELD 301	**Welding Symbols and Print Reading**	**5**
WELD 302	**Physical Characteristics and Mechanical Properties of Metals**	**1**
WELD 303	**GTAW – Equipment, Purging, and Filler Metals**	**4**
WELD 304	**GTAW – Plate**	**30**
WELD 305	**GTAW - Pipe**	**40**
		Total Hours: 80

WELD 301: Welding Symbols and Print Reading – 5 Hours
Explains how to read welding symbols on drawings, specifications, and Welding Procedure Specifications (WPS). Identifies and explains welding detail drawings. Describes lines, fills, object views, and dimensioning on drawings. Explains how to use notes on drawings and the list of materials.

WELD 302: Physical Characteristics and Mechanical Properties of Metals – 1 Hour
Explains physical characteristics, mechanical properties, composition, and classification of metals. Identifies the various standard metal forms and structural shapes. Covers the common Non-Destructive Test (NDT) processes.

WELD 303: GTAW – Equipment, Purging, and Filler Metals – 4 Hours
Explains GTAW safety. Identifies and explains the use of GTAW equipment, filler metals, and shielding gases. Purging piping systems prior to welding. Explains and performs the setup of GTAW equipment.

WELD 304: GTAW - Plate – 30 Hours
Describes and performs welding on carbon steel plate using the GTAW process using carbon steel filler metal. Also explains and performs multiple-pass GTAW fillet welds on carbon steel plate coupons in the IF, 2F, 3F, and 4F positions, and GTAW V-groove welds in the 1G, 2G, 3G, and 4G positions.

WELD 305: GTAW – Pipe – 40 Hours
Describes and performs fusion welding on carbon steel plate using GTAW process on carbon steel and stainless-steel pipe. Groove welds in the 1G, 2G, 3G, 4G, 5G, and 6G positions

Equipment & Materials Provided to Students

When enrolling in VTI programs for HVAC/R Technician Training, Entry-Level Technician Training, or Welding Programs, there are items that students must possess to participate in hands-on labs and ensure they follow the safety rules. VTI's classes and labs are housed in a 28,000 SF facility.

Student Lab Equipment

HVAC/R	Welding
Safety Goggles	Curved Handle, Carbon Steel Wire Brush
Work Gloves	Half Round File, Chipping Hammer, Cone Chisel
Multi-Meter8-MIG Pliers	Weld Fillet Gage, Steel Blades
Manifold Gauge Tip Cleaner	Tank Wrench, Spark Lighter
Wire Splicer	Helmet RD48 Auto Darkening, Front Cover Plate
Screwdrivers (Phillips and Flat)	Gas Welding and Cutting Goggles, Slip Joint Pliers
Channel Locks	Molded Polycarbonate Visor, Corded Ear Plugs
Wire Cutter	Cowhide Welding Gloves
Tool Bag with Measuring Tape	Black Welders Cap, Adjustable Wrench
3-Ton, 4-Ton, and 5-Ton Units	Multi-Functional Welders Stick, Mig, Tig, Flux Core

Student Textbook Materials

HVAC/R Entry Level Technician Training Program (200 Clock Hours)	HVAC/R Technician Training (600 Clock Hours)	Welding Program (287 Clock Hours)	Welding Technician Program (600 Clock Hours)	Process Piping Welding (80 Clock Hours)	Basic MIG Welding Workshop (20 Clock Hours)	Multi-Process Welding MIG, TIG, & Flux-Core Program

						(200 Clock Hours)
- NCCER Core - NCCER HVAC Technician Level 1 - Introduction to Electrical Controls - Refrigerant Transition and Recovery - EPA Universal	- NCCER HVAC Technician Level 1, Level 2 and Level 3 - NCCER Electrical Level 3 Introduction to Controls - Refrigerant Transition and Recovery - EPA Universal	- NCCER Welding Training Guide - NCCER Core	- NCCER Welding Training Guide - NCCER Core	- All hands-on	- All hands-on	- NCCER Welding Training Guide - NCCER Core

Learning Resource Center

The school has a learning resources center for student use, including computers with printer, numerous periodicals, textbooks, and online materials accessed through a computer.

Graduation

Student Requirements for Graduation

Students will be awarded a Certificate of Completion when the following have been met:

1. Completed all scheduled hours of the training program.
2. Final grade reflects an overall GPA average of 70% or above.
3. All financial obligations to the school are fulfilled.
4. **GI Bill® recipients cannot have their enrollment extended due to absences or make up assignments.**

"GI Bill® is a registered trademark of the U.S Department of Veteran Affairs (VA)"

Graduates Employment Opportunities

Graduates of VTI will be prepared to seek employment as an entry-level HVAC/R Technician or Welder with any company that provides HVAC/R and/or welding services, building maintenance, or semiconductor pipefitter welder.

Requirements for Graduates to Practice

There is no licensure requirement after graduation to practice as an HVAC/R technician or Welder working under a licensed contractor's licensure; however, rules and regulations vary from contractor to

contractor regarding internal policy and procedure requirements for working for a particular contractor. Notwithstanding the foregoing, VTI graduates are expected to follow the rules and regulations governing the HVAC/R or Welding industry and to acquire the certifications required to practice. Requirements for graduates to uphold and practice are as follows:

1. United States Department of Labor Standards for Occupational Safety and Health Administration (OSHA Law & Regulations)
2. Clean Air Act, Section 608 of the Environmental Protection Agency (E.P.A), Centers for Certification and Testing. The one-time testing fee for the R410A and EPA Universal Section 608 Certification is covered by the institution.
3. ESCO Institute Educational Standards Corporation P.O Box 521, Mt. Prospect, IL60056 www.escoinstitute.com or www.hvacexcellence.org
4. Complete Fusion Welding, American Welding Society Proctor

Financial Information

HVAC/R Technician Training (600 Clock Hours)

Tuition	Registration Fee	Course Materials	Total Cost
$18,595.00	$0.00	$348.00 Books + $2,002.00 Training Materials	$ 20,945.00

HVAC/R Entry Level Technician Training Program (200 Clock Hours)

Tuition	Registration Fee	Course Materials	Total Cost
$13,245.00	$0.00	$350.00 Books + $1,350.00 Training Materials	$ 14,945.00

Welding Program (287 Clock Hours)

Tuition	Registration Fee	Course Materials	Total Cost
$14,727.00	$0.00	$348.00 Books + $3,870.00 Tools/Training Materials	$18,945.00

Multi-Process Welding Mig, Tig & Flux Core Welding Program (200 Clock Hours)

Tuition	Registration Fee	Course Materials	Total Cost
$9,550.00	$0.00	$300.00 Books + $5,595.00 Tools/Training Material	$15,445.00

Basic Mig Welding Program (20 Clock Hours)

Tuition	Registration Fee	Course Materials	Total Cost
$1,200.00	$0.00	$0.00 Books + $300.00 Tools/Training Materials	$1,500.00

Welding Technician Program (600 Clock Hours)

Tuition	Registration Fee	Course Materials	Total Cost
$24,595.00	$0.00	$348.00 Books + $1,972.00 Tools/Training Materials	$26,915.00

Process Piping Welding (80 Clock Hours)

Tuition	Registration Fee	Course Materials	Total Cost
$7,028.00	$0.00	$0.00 Books + $970.00 Tools/Training Materials	$7,998.00

Class Schedule

Classes start each month. The school delivers 100% of its training through a brick-and-mortar training facility currently. Students are required to attend class on campus to receive hours.

Welding Technician Program (600 Clock Hours)

Monday – Friday	
Day Class	8:30am – 1:30pm (Total 24 Weeks)
Evening Class	6:00pm – 10:00pm (Total 30 weeks)

Multi-Process Welding Mig, Tig & Flux Core Welding Program (200 Clock Hours)

Monday – Friday	
Day Class	
Evening Class	

HVAC/R Entry Level Technician Training Program (200 Clock Hour)

Monday- Friday	
Day Class	6:45am to 5:15pm
Evening Class	6:00pm – 10:00pm Total 50 days/ 10 weeks

HVAC/R Technician Training Program (600 Clock Hour)

Monday- Friday	
Day Class	8:30 to 1:30 Total 24 Weeks
Evening Class	6:00pm – 10:00pm Total 30 weeks

Process Piping Welding (80 Clock Hours)

Monday- Friday	
	6:45am – 5:15pm Total 8 Days

School Break/Holiday Calendar

Vacation Period	Vacation Periods
Winter Break 12/21/2025 to 1/1/2026	Winter Break 12/21/2025 to 1/1/2026

Payment Options

All students must pay the total cost for their program by cash, check or credit card. Alternatively, students if the program is not paid in full in 30 days from start of class by cash, check or credit card, must pay through a third-party lender. Third party lender loans have terms ranging from 12 months to 72 months and interest will be assigned.
VTI does not currently offer scholarships.

Financing Options

May be available for students who wish to pay for their program with a private loan. VTI will refer students to apply for a private loan with Climb Credit, Meritize Financial or TFC Tuition Finance Corporation.

GI Bill® Funding is accepted. GI Bill® education benefits may only be used for approved programs at VTI.

Student Services

The institution provides assistance to students seeking academic advisement. Choosing a new career is made easy by our friendly administration and instructors who are available to provide technical guidance and career advice based on personal experience.
For enrolled students, the school has a learning resource center for students to use that includes books and periodicals for students to reference.

School Policies & Procedures

Satisfactory Academic Progress

Students will be given weekly exams to determine their academic progress. Students must receive a cumulative passing grade of 70% or higher on exams each week or they will be placed on academic probation. The probation period is (5) days, during which the student will receive additional academic support. If the student fails to obtain a 70% or higher on the next weekly exam, they will be terminated for failure of satisfactory academic progress.

Attendance

Students must attend class on time, as attendance is recorded. Four (4) absences will result in termination from the program.

An absence will be recorded if the student arrives to class more than 30 minutes late or if the student leaves class more than 30 minutes early. The student is responsible for meeting with the instructor regarding missed material due to the absence. Please be advised that students will be terminated due to poor attendance or excessive tardiness.

Students who must be absent due to personal illnesses, court appearances or other emergencies, may request that their absence be excused by notifying the school and explaining the reason for the absence. VTI reserves the right to request a physician's note or other relevant evidence of good cause for the absence. An excused absence will need supporting documentation to be provided to the school. Coursework missed must be made up according to the Make-Up Work policy.

Cancellation & Refund Policy

An applicant denied admission by the school is entitled to a refund of all monies paid.

Three-Day Cancellation: An applicant who provides written notice of cancellation within three days (excluding Saturday, Sunday and federal and state holidays) of signing an enrollment agreement prior to start date is entitled to a refund of all monies paid. The school shall provide the total refund no later than 30 days of receiving the notice of cancellation. **This includes VA Beneficiaries**

Other Cancellations: An applicant requesting cancellation more than three days after signing an enrollment agreement and making an initial payment, but prior to entering the school, is entitled to a refund of all monies paid. The school shall provide the total refund no later than 30 days of receiving the notice of cancellation. **This Includes VA Beneficiaries**

Refund after the commencement of classes:

1. Procedure for withdrawal/withdrawal date:
   A. A student choosing to withdraw from the school after the commencement of classes is to provide written notice to the Director of the school. The notice is to indicate the expected last date of attendance and be signed and dated by the student. B. For a student who is on authorized Leave of Absence, the withdraw date is the date the student was scheduled to return from the Leave and failed to do so.
   C. A student will be determined to be withdrawn from the institution if the student has not attended any class for 30 consecutive class days.
   D. Any determined refunds will be issued within 30 days of the determination of the withdrawal date.
2. **Tuition charges/refunds:**
   A. Before the beginning of classes, the student is entitled to a refund of 100% of the tuition. **This includes VA Beneficiaries**
   B. After the commencement of classes, the tuition refund shall be determined as follows:

ADMISSIONS POLICIES FOR STUDENTS USING VETERAN AFFAIRS (VA) EDUCATION BENEFITS

In accordance with Title 38 US Code 3679 subsection (e), this school adopts the following additional provisions for any students using U.S. Department of Veterans Affairs (VA) Post 9/11 G.I.

Bill® (Ch. 33) or Vocational Rehabilitation & Employment (Ch. 31) benefits, while payment to the institution is pending from the VA, or due to delayed disbursement of eligible funds from the VA under chapter 31 or 33. As such, this school will not: prevent the student's enrollment; assess a late penalty fee to the student; require the student to secure alternative or additional funding; or deny the student access to any resources (including access to classes, resource area, or other institutional facilities) available to other students who have satisfied their tuition and fee bills to the institution. However, to qualify for this provision, such students may be required to: Produce the VA Certificate of Eligibility (COE) by the first day of class; provide a written request to be certified; provide additional information needed to properly certify the enrollment as described in other institutional policies.

Veterans Refund Policy

Vocational Training Institute Veterans Refund Policy complies with 38 CFR 21.4255. In the event the veteran or eligible person fails to enter the course, withdraws, or is dismissed at any time prior to completion, any unused portion of tuition, fees, and other charges is refunded. Any amount more than $10 of the registration fee is subject to proration. The amount charged will not exceed the exact pro-rata portion of total charges. The length of the completed portion of the course will be prorated over its total length, and the exact proration will be determined by the ratio of the number of days of instruction completed by the student, to the total number of instructional days in the course. Refunds are made within 30 days of the last date of the student's attendance.

This table does not apply to VA Beneficiaries

% of the clock hours attempted:	**Tuition refund amount:**
10% or less	90%
More than 10% and less than or equal to 20%	80%
More than 20% and less than or equal to 30%	70%
More than 30% and less than or equal to 40%	60%
More than 40% and less than or equal to 50%	50%
More than 50%	No Refund is required

The percentage of the clock hours attempted is determined by dividing the total number of clock hours elapsed from the student's start date to the student's last day of attendance, by the total number of clock hours in the program.

Books, training materials and tools are nonrefundable.

Refunds will be issued within 30 days of the date of student notification, or date of school determination (withdrawn due to absences or other criteria as specified in the school catalog), or in the case of a student not returning from an authorized Leave of Absence (LOA), within 30 days of the date the student was scheduled to return from the LOA and did not return.

Code of Conduct

It is the responsibility of the student to attend school regularly, demonstrate conscientious effort in class work and contribute positively to our school community by observing school rules and regulations. Students shall share the responsibility to promote the mission of the institution.

Vocational Training Institute students respect and protect the rights of peers, teachers, administrators, and everyone else involved in the educational process. Students must adhere to the following rules:

- No slander or offensive language
- Practice and model academic honesty
- Make-up assignments when absent from school
- Protect and take care of school property; no theft of school property
- Groom appropriately to meet health standards
- Dress appropriately; No sandals or open toed shoes
- No disruptions of the educational process
- Follow safety precautions for hands-on labs as directed

Students who do not comply with the above rules will be disciplined as follows:

1st Offense: Written Warning
2nd Offense: Second Written Warning
3rd Offense: Final Written Warning
4th Offense: Termination from the program

Serious violations of the Code of Conduct may result in immediate termination, at the discretion of the school Director.

Grade Reporting & Transcripts

Students can request a copy of their transcripts by requesting, in writing, that the school sends a transcript. After doing so, the student transcript will be mailed out within 15 business days. Students may request a copy of their academic progress upon request from the instructor or student services.

Grading System

In order to achieve a passing grade for the program, the student must complete the program with a grade of 70% or higher. Students that hold an overall grade of less than70% will be notified and counseled by the director according to the Academic Probation Policy. To complete the program, students must have a cumulative grade point average (GPA) of 70% or higher upon completion of all exams. Each exam is weighted the same to determine cumulative GPA.

Letter Grades by Percent

A: 90-100 **B:** 80-89 **C:** 70-79 **D:** 60-69 **F:** 0-59 **W:** Withdrawal

Grievance Procedure

A student may file a complaint with the institution if he/she believes there has been a violation of written campus policies, procedures, or arbitrary, capricious, or unequal application of written campus policies or procedures. To file a complaint, the student must follow the Grievance Procedure outlined below:

STEP 1: Speak with an Instructor or Administrator to try and resolve the problem informally.

STEP 2: If the problem cannot be resolved through informal discussion, submit a written complaint to the School Director or designee within one calendar week after the discussion described in Step 1. The written complaint must include a detailed description of the grievance, the desired resolution, and any available evidence and statements from other parties and witnesses.

STEP 3: The Director (or designated administrator, in the Director's absence) will investigate the complaint, interview relevant parties and provide a written report of his decision to the student within 10 business days. The report will include the facts from the investigation, the decision made, and the specific reasons for the decision.

STEP 4: Student has the right to appeal the decision, if there is additional information to be reviewed. The student has 5 days to appeal the decision.

If the student complaint cannot be resolved after exhausting the institution's grievance procedure, the student may file a complaint with the Arizona State Board for Private Postsecondary Education. The student must contact the State Board for further details.

The State Board address is: **Arizona State Board for Private Postsecondary Education**

1740 W. Adams, Ste. 3008
Phoenix, Arizona 85007
Phone: (602) 542-5709
Website: www.ppse.az.gov

The school is not an accredited institution. The school is applying to become a candidate for accreditation with the Commission of the Council on Occupational Education.

At any time, a student may contact the Council on Occupational Education. All complaints must be submitted in writing and must include permission from the complainant for the Council to forward a copy of the complaint to the school for a response. The complainant will be kept informed of the status of the complaint and the final resolution by the Council.

Council on Occupational Education
7840 Roswell Road
Building 300, Suite 325
Atlanta, GA 30350
Telephone (Local): 770-396-3898
Telephone (Toll-Free): 800-917-2081
Fax: 770-396-3790
Website: www.council.org

Leave of Absence

If a student wishes to take a leave of absence, they must submit a written request to the institution 3 business days in advance of the first day of the requested leave, for approval. If the student is approved for a leave of absence, the duration of the leave will be determined by the School Director (or the

Administrator if the Director is absent). Maximum time granted for leave should not exceed 180 business days, and a student is only allowed to take a leave of absence once during the program.

Make-Up Work

Students who miss class must make-up the work and time missed. Class assignments may be made-up for full points. A make-up lecture may be granted at the discretion of the instructor and will be scheduled by the instructor. The due date for make-up assignments is at the discretion of the instructor.

Possession of Weapons, Drugs, or Alcohol

If a student is using, possessing, or distributing any kind of weapons, illegal drugs, alcohol, inhalants, or drug paraphernalia on school property, local police will be notified immediately, and the student will be expelled indefinitely from the institution.

Re-Enrollment

Re-enrollment is available to students who have withdrawn or have been terminated due to failure to progress. Students who desire to return to school after termination must meet the terms and policies stated in the school enrollment agreement and school catalog. A re-entry fee of $50 is required and any increase in tuition will be applied to the students' account. GI Bill® cannot pay for a re-entry fee or any other penalty fee.

Termination

Students are subject to termination if they have exceeded their allowed absences or have not raised their grade to passing during the academic probation period. A terminated student can request an appeal by submitting a request in writing to the VTI Director within 5 business days of the notice. Within 2 business days of the request, the Director will provide a written response, indicating whether the student maybe reinstated, and if so, noting the terms of reinstatement.

Students who are terminated for violating the student code of conduct policy will not be allowed to re-enroll.

Transfer Credits

Vocational Training Institute does not accept transfer credits from other institutions or colleges for our students not utilizing GI Bill® benefits. Furthermore, VTI will not grant previous workplace employment or life experiences as credit towards its programs for students not utilizing GI Bill® benefits. VTI does, however, accept internal transfer credit. For students seeking transfer credit within VTI, all applicable attended hours and grades earned in the original course will transfer to the new program. Tuition adjustments will be applied for the click hours that were accepted toward the new program of study.

Veteran's Credit for Previous Education or Training

VA beneficiaries must report all education and training to Vocational Training Institute. Vocational Training Institute will evaluate and grant credit where appropriate with the training time shortened and the tuition reduced proportionately.

Transcripts

An official transcript is maintained for each student. The transcript provides a complete record of all courses, grades, and credits earned. If you are not current on any outstanding balance, the school will not release the certificate of completion or official transcript and will not allow the student to participate in the graduation ceremony. However, there are two exceptions to this policy:

- Transcripts may be released for a student to document eligibility to sit for a licensing, certification, or registry exam.

- The transcript must be released to a potential employer.

Additionally, all state board applications and accompanying paperwork are provided upon graduation at no charge. Graduates in good standing are provided with one official transcript. Any additional copies of official or unofficial transcripts can be obtained from the school director for a $25 service fee. Please allow 15 days for processing. Official transcripts are only released to third parties and only upon receipt of a written request by the graduate.

Withdrawal

Students who choose to withdraw from the program before or after classes have begun must provide the director with a signed and dated written cancellation notice. The cancellation notice must indicate the reason for withdrawal and the last date of attendance (if withdrawing after the commencement of classes) verified by the instructor. Students authorized for a Leave of Absence who do not return on the scheduled date, and students who do not attend class for 30 consecutive class days, are deemed to have been withdrawn from the program. See the Cancellation & Refund Policy for the refund schedule.

Career Services

Vocational Training Institute employs a Career Services Coordinator whose primary responsibility is to provide career assistance services to graduating students and alumni. These services include instruction in resume writing, preparation of cover letters, interviewing techniques, and networking skills. Special attention is given to developing professionalism in our graduates.

The Career Services Office continually works and communicates with potential employers attempting to match their specific employment needs to the appropriate graduate. As a result of these well-tended lines of communication, we both seek out and receive notices of a variety of available positions. Upon successful completion of the program, the student will receive a list of potential employers who may or may not have immediate openings. Note these referrals do not constitute offers of employment, as the student accepts full responsibility for any requirements from the employer regarding mental, physical or other qualifying hiring requirements.

The school provides placement assistance for its graduates but makes no promise or guarantee of employment. Graduates in good standing may continue to use any and all of our placement resources indefinitely at no charge.

Records

The school maintains student record files in two ways: a locked file cabinet and an electronic student management records system. Keys to the file cabinet are only given to authorized personnel. In addition,

the school's electronic student management records system maintains duplicate electronic records. The school maintains student records in this electronic student management records system. This system backs up to the secured cloud and once a month conducts tests for the accuracy of the stored information. Records maintained in the student management records system are accessed through computers that are password protected to minimize the risk against any information being leaked or stolen. VA beneficiary records are maintained for a minimum of 3 years.

WELDING Program Hour 287 Hour

Start Date **Completion Date**

287HR Welding	
Stat Date	Completion Date
1/7/2026	02/11/2026 (3 Sat.)
1/28/2026	03/04/2026 (3 Sat.)
2/18/2026	03/25/2026 (3 Sat.)
3/11/2026	04/16/2026 (2 Sat.)
4/1/2026	05/07/2026 (2 Sat.)
4/22/2026	05/28/2026 (2 Sat.)
5/13/2026	06/18/2026 (2 Sat.)
6/3/2026	07/09/2026 (2 Sat.)
6/24/2026	07/30/2026 (2 Sat)
7/15/2026	08/20/2026 (2 Sat.)
8/5/2026	09/10/2026 (2 Sat)
8/26/2026	10/1/2026 (2 Sat)
9/16/2026	10/22/2026 (2 Sat)
10/7/2026	11/12/2026 (2 Sat)
10/28/2026	12/03/2026 (2 Sat)
11/18/2026	12/16/2026 (Mon-Sun)

Multi-Process WELDING Mig, Tig & Flux Core Hour 200 Hour

Start Date **Completion Date**

Multi-Process	
Start	Completion Date
1/5/2026	01/29/2026 (1Sat.)
2/9/2026	03/05/2026 (1 Sat.)
3/16/2026	04/09/2026 (1 Sat.)
4/13/2026	05/07/2026 (1 Sat)
5/18/2026	06/11/2026 (1 Sat.)
6/22/2026	07/16/2026 (1 Sat.)
7/27/2026	08/20/2026 (1 Sat.)
8/31//2026	09/24/2026 (1 Sat.)
10/5/2026	10/29/2026 (1 Sat.)
11/9/2026	12/03/2026 (1 Sat.)
11/30/2026	12/21/2026 (1 Sat. & 1 Sun.)

Basic Mig Welding Workshop Hour 20 Hour

Start Date **Completion Date**

Basic Mig Welding Workshop	
Start	Completion Date
1/5/2026	01/29/2026 (1Sat.)
2/9/2026	03/05/2026 (1 Sat.)
3/16/2026	04/02/2026 (1 Sat.)
4/13/2026	05/07/2026 (1 Sat)
5/18/2026	06/11/2026 (1 Sat.)
6/22/2026	07/16/2026 (1 Sat.)
7/27/2026	08/20/2026 (1 Sat.)
8/31//2026	09/24/2026 (1 Sat.)
10/5/2026	10/29/2026 (1 Sat.)
11/9/2026	12/03/2026 (1 Sat.)
11/30/2026	12/21/2026 (1 Sat. & 1 Sun.)

HVAC/R Entry Level Technician Training Program Hour 200 Hour

Start Date **Completion Date**

HVAC 200hr	
Stat Date	Completion Date

1/7/2026	1/30/2026(2 Sat.)
1/21/2026	2/13/2026(2 Sat.)
2/4/2026	2/27/2026(2 Sat.)
2/18/2026	3/13/2026(2 Sat.)
3/4/2026	3/27/2026(2 Sat.)
3/18/2026	4/10/2026(2 Sat.)
4/1/2026	4/24/2026(2 Sat.)
4/15/2026	5/8/2026(2 Sat.)
4/29/2026	5/22/2026(2 Sat.)
5/13/2026	6/5/2026(2 Sat.)
5/27/2026	6/19/2026(2 Sat.)
6/10/2026	7/3/2026(2 Sat.)
6/24/2026	7/17/2026(2 Sat.)
7/8/2026	7/31/2026(2 Sat.)
7/22/2026	8/14/2026(2 Sat.)
8/5/2026	8/28/2026(2 Sat.)
8/19/2026	9/11/2026(2 Sat.)
9/9/2026	10/2/2026(2 Sat.)
9/23/2026	10/16/2026(2 Sat.)
10/7/2026	10/30/2026(2 Sat.)
10/21/2026	11/13/2026(2 Sat.)
11/4/2026	11/27/2026(2 Sat.)
11/18/2026	12/11/2026(2 Sat.)

HVAC/R Technician Training Program 600 Hour

Start Date **Completion Date**
Feb 18th **September 2nd**

Welding Technician Program 600 Hour

Start Date **Completion Date**
Feb 18th **September 2nd**

Process Piping Welding 80Hour

Start Date **Completion Date**

September 16th **September 25th**

VTI reserves the right to reschedule the program start date when the number of students scheduled is too small.

VOCATIONAL TRAINING INSTITUTE

I, _____, acknowledge that I have received and reviewed
(student)
a school catalog on _____.
(date)

School Official: _____

Date: _____