CATALOG ADDENDUM

Tulsa Welding School	Tulsa Welding School Jacksonville	Tulsa Welding School Houston & Technology Center	Tulsa Welding School Dallas	Tulsa Welding School Atlanta	RSI The Refrigeration School
2545 E. 11th Street, Tulsa, OK 74104 To Catalog Number 52, Effective 12/29/2025	3500 Southside Blvd., Jacksonville, FL 32216 To Catalog Number 24, Effective 12/29/2025	243A Greens Rd., Houston, TX 77060 To Catalog Number 12, Effective 12/29/2025	700 E. Airport Freeway Irving, TX 75062 To Catalog Number 4, Effective 12/29/2025	1287 Columbia Dr., Decatur, GA 30032 To Catalog Number 1, Effective 12/29/2025	4210 E. Washington St., Phoenix, AZ 85034 To Catalog Number 59, Effective 12/29/2025

FINANCIAL INFORMATION

The total cost for the avocational courses listed in this Catalog Addendum is $5,250. The total course cost includes all materials needed to complete the course.

There are slight changes to the cost for the associate degree programs. The correct breakdown is listed below.

Program Name:	AOS in Welding Technology (Standard Pricing)	AOS in Welding Technology (Military Pricing)	AAS in Welding Inspection and Quality Management (Standard Pricing)	AAS in Welding Inspection and Quality Management (Military Pricing)
Tuition:	$37,200	$33,480	$37,200	$33,480
Registration Fee:	25	25	25	25
Technology Fee:	1,000	1,000	1,000	1,000
Lab Fees:	3,400	3,400	3,400	3,400
Course Materials/Textbooks:	3,250	3,250	3,250	3,250
Gear Package:	2,400	2,400	2,400	2,400
Accident Insurance:	600	600	600	600
Total Program Cost:	**$47,875**	**$44,155**	**$47,875**	**$44,155**

GRADUATION DOCUMENTATION

Students taking avocational courses will be awarded a Certificate of Completion upon successful completion of the prescribed course of study.

AVOCATIONAL COURSE DESCRIPTIONS

These courses are not vocational in nature and do not lead to initial employment. Each course is eligible for proficiency credit in a related program through a demonstrated assessment of proficiency which must be approved by the Director of Education/Training, or their designee. Proficiency credit is not guaranteed.

Electrical Technician Fundamentals

100 Total Clock Hours: 15 Instructional Hours; 85 Lab Hours; 10 Weeks

The course introduces the latest version of the National Electric Code Book to the students as a guide throughout class and interprets all Code Book requirements. A study of electrical safety is provided

to ensure a complete understanding of hand tools, ladders, shock hazards, and the personal protective equipment used in the field. Students will put into practice all they have learned by wiring a scaled down three-bedroom home and will be required to safely place all wiring, circuits, switches, receptable, lighting fixtures, and GFCI devices in the trainer according to the electrical code.

HVAC Technician Fundamentals

100 Total Clock Hours: 40 Instructional Hours; 60 Lab Hours; 10 Weeks

The course provides students with basic electrical understanding from an elemental stage through troubleshooting. Course includes curriculum and hands-on meter usage, information on multiple types of test meters and their proper use, an overview of single phase and three phase motor, electrical devices, and troubleshooting. Student will also learn to understand schematic wiring, all the safety processes associated with handling electrical systems such as grounding and energized circuits, work with dual voltage systems commonly found in HVAC/R equipment, and build a foundation for control circuit wiring and high voltage wiring.

MIG Welding Fundamentals

100 Total Clock Hours: 45 Instructional Hours; 55 Lab Hours; 10 Weeks

The course is designed to provide fundamental information about a career in MIG welding as well as develop critical, basic welding skills. Topics covered include basic layout of construction drawings, development of the ability to read and correctly interpret contemporary welding symbols, thermal techniques for cutting flat stock, developing the capacity to set up welding equipment and the components for an arc welding machine, various types of electrodes used in arc welding procedures, use of the .035 MIG wire and .045 Flux Core wire, and the use of basic GMAW and FCAW welding processes and techniques.

Solar Installation Fundamentals

100 Total Clock Hours: 35 Instructional Hours; 65 Lab Hours; 10 Weeks

The course provides an overview of photovoltaic (PV) science and an introduction to the fundamentals of solar energy. Students will learn the concepts and processes of photovoltaic systems, including their design and installation. Students will cover the scope of solar energy systems' conceptual, mechanical and electrical design, with an emphasis on wiring and electrical issues.

CANCELLATION AND REFUND POLICY – AVOCATIONAL COURSES ONLY

A student canceling enrollment at any time before commencement of classes shall be refunded as follows:

A. Three-Day Cancellation: An applicant who provides written notice mailed/delivered to the TWS at the institution address stated herein of cancellation within three days (excluding Saturday, Sunday and federal or state holidays) of signing an enrollment agreement is entitled to a refund of all monies paid. No later than 30 days of receiving the notice of cancellation, the school shall provide the 100% refund.
B. Students who withdraw after starting the course will be subject to the following refund policy:
    a. If withdrawn during the first two scheduled class days of the course, the student is eligible for 50% refund of total course cost.
    b. All withdrawals after the second scheduled class day of the course, the student is not eligible for a refund.

POLICIES AND PROCEDURES

Guests and Animals on Campus

Due to active work environments, student security, and the safety of everyone on campus, guests are not permitted on campus unless they are invited and escorted by a staff member or are attending an event that is open to the public, such as an open house, student competition, campus tour, or other specified event.

Animals are not permitted on campus except for authorized service animals in accordance with the school's Service Animal policy.

Children and animals are not to be left unattended anywhere on school property, including within vehicles. Appropriate authorities will be notified if this occurs.

STUDENTS WITH DISABILITIES

Service Animal Policy

Service animals, as defined by Title II and Title III of the ADA, means any dog that is individually trained to do work or perform tasks for the benefit of an individual with a disability, including a physical, sensory, psychiatric, intellectual, or other mental disability. Tasks performed can include, among other things, pulling a wheelchair, retrieving dropped items, alerting a person to a sound, reminding a person to take medication, or pressing an elevator button. However, entities must make reasonable modifications in policies to allow individuals with disabilities to use miniature horses if they have been individually trained to do work or perform tasks for individuals with disabilities.

Examples of animals that fit the ADA's definition of "service animal" because they have been specifically trained to perform a task for the person with a disability:

- Guide Dog or Seeing Eye® Dog is a carefully trained dog that serves as a travel tool for persons who have severe visual impairments or are blind.
- Hearing or Signal Dog is a dog that has been trained to alert a person who has a significant hearing loss or is deaf when a sound occurs, such as a knock on the door.
- Psychiatric Service Dog is a dog that has been trained to perform tasks that assist individuals with disabilities to detect the onset of psychiatric episodes and lessen their effects. Tasks performed by psychiatric service animals may include reminding the handler to take medicine, providing safety checks or room searches, or turning on lights for persons with Post Traumatic Stress Disorder, interrupting self-mutilation by persons with dissociative identity disorders, and keeping disoriented individuals from danger.
- A sensory signal dog or social signal dog (SSigDOG) is a dog trained to assist an autistic person or their caregiver. These dogs are trained to do a variety of social or sensory tasks based on the needs of the individual. For example, a dog might cue a person to pay attention to street crossings and crosswalks when walking to their job. Or a dog might listen for a parent calling a child's name and guide the parent to the child.
- Seizure Response Dog is a dog trained to assist a person with a seizure disorder. How the dog serves the person depends on the person's needs. The dog may stand guard over the person during a seizure or the dog may go for help. A few dogs have learned to predict a seizure and warn the person in advance to sit down or move to a safe place.

The service animal's handler is responsible for the care and supervision of their service animal. If a service animal behaves in an unacceptable way and the person with a disability does not control the animal, the school will not allow the animal to remain on campus and may ask the handler not to bring the animal back until or unless it is under control.

Unacceptable behavior from a service animal includes, but it not limited to, the following:

- Uncontrolled barking
- Jumping on other people
- Running away from the handler
- Displaying behavior that poses a direct threat to the health or safety of others, such as aggressive behavior, growling, relieving itself, etc.

The ADA requires the service animal to be under the control of the handler at all times. This can occur using a harness, leash, or other tether. In cases where either the handler is unable to hold a tether because of a disability or its use would interfere with the service animal's safe and effective

performance of work or tasks, the service animal must be under the handler's control by some other means, such as voice control. In addition, the following criteria must be adhered to:

- The animal must be housebroken; the ADA does not require entities to provide for the care or supervision of a service animal, including cleaning up after the animal. This is the responsibility of the handler.
- The animal should be vaccinated in accordance with state and local laws and must provide proof of current records upon registration.
- An entity may also assess the type, size, and weight of a miniature horse in determining whether or not the horse will be allowed access to the facility.

Due to the nature of our programs, service animals will not be permitted in the lab environment. Service animals are at risk of burns, shock, electrocution, and/or other hazardous conditions and are unable to wear proper safety gear to minimize the risks.

Please note that emotional support animals, comfort animals, and therapy dogs are not service animals under Title II and Title III of the ADA. Other species of animals, whether wild or domestic, trained or untrained, are not considered service animals either. The work or tasks performed by a service animal must be directly related to the individual's disability. It does not matter if a person has a note from a doctor that states that the person has a disability and needs to have the animal for emotional support. A doctor's letter does not turn an animal into a service animal. Therefore, the school will not allow emotional support or therapy animals on campus.

ACADEMIC CALENDAR

Holidays and School Closures for Online and Hybrid Courses

Online and Hybrid courses offer flexibility by incorporating both unscheduled asynchronous work and scheduled synchronous class and lab time. If a holiday or unplanned school closure (such as a weather event) occurs during a scheduled synchronous class or lab session, a makeup day will be scheduled. This makeup day is typically held on the next open lab day but may be scheduled on a different day if circumstances require. The make-up day will be scheduled by campus leadership and will be communicated to students as soon as reasonably possible.

If a holiday or closure occurs during a time designated for asynchronous instruction, no makeup day will be scheduled. The student is still expected to complete all assigned work for their course by the established due date. Reasonable adjustments to due dates may be made at the discretion of the instructor or Campus President.

Start and Graduation Dates

Effective for course start dates beginning on or after February 1, 2026, the Electrical Applications program name will change to Electrical Technologies. Additionally, the Advanced Industrial Maintenance Technology, Electrical Technologies, Electro-Mechanical Technologies, and Refrigeration Technologies programs will be changed to a 5-week course schedule. Advanced Industrial Maintenance Technology, Electrical Technologies and Refrigeration Technologies programs will align with the Professional Welder/Welding Specialist program start and graduation dates. The new schedule for Electro-Mechanical Technologies is listed below.

Start Date	EMT Graduation Date
2/16/2026	11/20/2026
3/23/2026	1/8/2027
4/27/2026	2/12/2027
6/1/2026	3/19/2027
7/6/2026	4/23/2027
8/10/2026	5/28/2027
9/14/2026	7/2/2027
10/19/2026	8/6/2027
11/30/2026	9/10/2027
1/11/2027	10/15/2027
2/15/2027	11/19/2027

ADMISSIONS (HIGH SCHOOL EQUIVALENCY)

In addition to the options listed in the School Catalog, specific high school equivalency is also acceptable. The following option is available to students to demonstrate that they meet this admission requirement.

- A state certificate received by a student after the student has passed a State-authorized examination that the State recognizes as the equivalent of a high school diploma

CATALOG ADDENDUM

PROGRAMS

Effective for course start dates beginning on or after February 1, 2026, the Electrical Applications program name will change to Electrical Technologies. In addition, the Electrical Technologies, Electro-Mechanical Technologies, and Refrigeration Technologies programs will be changed to a 5-week course schedule. All start and end dates for courses in all diploma programs will be aligned, making the student experience better. Any courses already taken will be credited in the new program version where applicable. In addition, all programs maintain the same program objectives. The overall clock hours and Semester Credit Hours (SCH) will increase, but there is no additional charge to the students. The program information charts are below for reference.

Course sequences are listed for reference only. The actual delivery sequence of the courses may vary depending on individual campus scheduling.

Electrical Technologies Program Information

Course Number	Title of Course	Semester Credit Hours	Lecture Hours	Lab Hours	Total Contact Hours	Course Description	Prerequisite Course(s)
EA100	Fundamentals of Electricity	5	75	50	125	This course provides students with a foundational understanding of electrical concepts, from basic principles through introductory troubleshooting. Trainers are used to teach schematic wiring, meter use, and essential safety practices related to electrical systems, including grounding, working with energized circuits, and specific safety considerations when handling solar-electric components. Students will learn to work with common dual-voltage systems as well as single-phase and three-phase motors, gaining familiarity with core electrical principles. The course also introduces the principles behind solar energy, including how photovoltaic systems generate and distribute power. Learners will apply these concepts through hands-on activities using training equipment and practical scenarios. Instruction covers the use of various testing tools and their proper application, an introduction to common electrical and solar components, and fundamental techniques for diagnosing and resolving issues in both traditional and solar-electric systems.	None
EA120	Electrical Wiring – Residential	5	75	50	125	This course introduces the most current version of the National Electrical Code Book to the students as a guide throughout the class. The primary goal of the program is to teach basic techniques of Residential wiring from the standpoint of interpreting all code book requirements. Students will put into practice all that they have learned by wiring a scaled down three bedroom home. A study of electrical safety is provided to ensure a complete understanding of hand tools, ladders, shock hazards, and the personal protective equipment required to work in this field. They will be required to safely place all wiring, circuits, switches, receptacles, lighting fixtures, and GFCI devices in the trainer according to the electrical code.	EA100
EA130	Electrical Wiring - Commercial	5	75	50	125	The Commercial wiring course follows through with concepts learned in the Residential wiring course of training delving deeper into the National Electrical Code book. Students will be tasked with code book interpretation through the study of load calculations, blueprint reading, cost estimating, three phase motor wiring, and conduit manipulation. Students will wire commercial lighting and three phase motors as they research the required applications. A mock commercial building will be wired by students in accordance with applicable code using conduit to protect their wiring.	EA100
EA145	Emerging Electrical Applications	5	75	50	125	This class begins with an overview of emerging electrical applications, including audio/video, security, data, communication, and photovoltaic (PV) systems. The course also reviews the growing importance of audio/video/data over IP networks; the characteristics and key components of home automation; home entertainment; smoke & fire alarm systems. Students will be introduced to residential and commercial control systems and programming, including an overview of IP-based control platforms.	EA100
EA155	Motors, Lighting & PLC	5	75	50	125	This class elaborates on the characteristics of Alternating Current, explaining the behavior of electricity and how it functions in the application of motors, lighting, and the devices that control them. Students will learn the differences between DC and AC motors, Single Phase and 3 Phase applications, calculating the proper sizing of motors, and the selection of the motor controller as well as overload protection. This class also covers the characteristics of light, the handling and installation of various types of lighting (incandescent, fluorescent, high intensity discharge, LED), and the controls used in their operation. In addition, the class will cover the basic use and programming of a PLC (Programmable Logic Controller).	EA100
EA165	Electrical Distribution Systems	5	75	50	125	This course will describe and analyze power distribution systems, major components, and associated National Electrical Code (NEC) requirements. Concepts covered include the design, installation, and operation of NEC compliant power distribution systems. Specific items of focus include transformers, and overcurrent protective devices (breakers & fuses). Students will also learn to apply their knowledge of the proper methods for grounding and bonding according to the requirements of the NEC.	EA100
Total Hours:		**30**	**450**	**300**	**750**		

CATALOG ADDENDUM

Electro-Mechanical Technologies Program Information							
Course Number	**Title of Course**	**Semester Credit Hours**	**Lecture Hours**	**Lab Hours**	**Total Contact Hours**	**Course Description**	**Prerequisite Course(s)**
EA100	Fundamentals of Electricity	5	75	50	125	This course provides students with a foundational understanding of electrical concepts, from basic principles through introductory troubleshooting. Trainers are used to teach schematic wiring, meter use, and essential safety practices related to electrical systems, including grounding, working with energized circuits, and specific safety considerations when handling solar-electric components. Students will learn to work with common dual-voltage systems as well as single-phase and three-phase motors, gaining familiarity with core electrical principles. The course also introduces the principles behind solar energy, including how photovoltaic systems generate and distribute power. Learners will apply these concepts through hands-on activities using training equipment and practical scenarios. Instruction covers the use of various testing tools and their proper application, an introduction to common electrical and solar components, and fundamental techniques for diagnosing and resolving issues in both traditional and solar-electric systems.	None
EA120	Electrical Wiring – Residential	5	75	50	125	This course introduces the most current version of the National Electrical Code Book to the students as a guide throughout the class. The primary goal of the program is to teach basic techniques of Residential wiring from the standpoint of interpreting all code book requirements. Students will put into practice all that they have learned by wiring a scaled down three bedroom home. A study of electrical safety is provided to ensure a complete understanding of hand tools, ladders, shock hazards, and the personal protective equipment required to work in this field. They will be required to safely place all wiring, circuits, switches, receptacles, lighting fixtures, and GFCI devices in the trainer according to the electrical code.	EA100
EA130	Electrical Wiring - Commercial	5	75	50	125	The Commercial wiring course follows through with concepts learned in the Residential wiring course of training delving deeper into the National Electrical Code book. Students will be tasked with code book interpretation through the study of load calculations, blueprint reading, cost estimating, three phase motor wiring, and conduit manipulation. Students will wire commercial lighting and three phase motors as they research the required applications. A mock commercial building will be wired by students in accordance with applicable code using conduit to protect their wiring.	EA100
HV100	Fundamentals of Refrigeration	5	75	50	125	In this class, students are introduced to the refrigeration cycle through class lecture and observing operating equipment. The material in this class is mechanical in nature and is limited to the mechanical and physical properties of refrigerants and the refrigeration cycle. The equipment in this class is used to safely demonstrate the varied states of refrigerant as it cycles through the system. The student will be introduced to many of the tools associated with the refrigeration industry such as: manifold gauge set, vacuum pumps, service wrenches, charging, and recovery equipment. The safety programs in this class will provide students with details on being in close proximity to rotating machinery and refrigerant handling. The class is also designed to familiarize the student with details on the mechanical troubleshooting process.	None
HV110	Comfort Systems - Residential	5	75	50	125	This class offers experience with residential split systems, packaged heat pump systems, air conditioners, gas furnaces, and evaporative coolers. Students are tasked with building schematics for air conditioning/heating systems and wiring the same systems having only the components of the system as reference. A further study of mechanical and electrical troubleshooting turns more hands-on in this class as students see the equipment come to life by their own hand. Gas piping, sizing, and installation are studied as it applies to furnace operation.	EA100, HV100
HV120	Comfort Systems – Commercial	5	75	50	125	This class offers a more technical approach to studying the concepts of indoor climate control. Students are tasked with safely removing and replacing components within residential and commercial HVAC systems such as fan motors, fans, electrical components, and compressors. Recovery and charging of refrigerants are an integral aspect of this class and students will apply their lessons to real equipment to round out the experience. Students will study brazing techniques using oxy/acetylene equipment and are required to put their knowledge to use on multiple tasks designed to enhance understanding of working within the confines of an HVAC unit. Refrigerant piping manipulation is introduced for study using hands-on techniques as students gain an overall familiarization of HVAC equipment. The opportunity to study and test on R410a and automotive air conditioning is provided in this class; successful students will achieve an R410a safety certification and EPA section 609 certification. An introduction to air balance and the associated equipment are also included for this class.	EA100, HV100
HV130	Refrigeration Systems & Practices	5	75	50	125	Students will learn to maintain, monitor, and manage residential and commercial grade walk-in refrigerators and freezers. A study of commercial grade ice makers such as: a flaker, cuber, and nugget type units provide an intense look at low temperature refrigeration equipment. Students will be required to change out a compressor, service and/or repair critically charged systems to enhance their overall understanding of mechanical and electrical troubleshooting. A variety of specialty tools related to equipment studied in this class will be introduced to round out the total experience.	EA100
HV200	Advanced Trouble-Shooting Techniques	5	75	50	125	The class introduces the operation and maintenance of reciprocating liquid chillers and stands as a review of the knowledge students have attained through previous courses. Electrical troubleshooting takes on a new intensity in this class as students are exposed to the E-STAR Trainer. The E-STAR Trainer is equipment developed to teach and hone electrical troubleshooting skills. A thorough study of mechanical troubleshooting and schematic wiring will raise the student to the level of technician. The opportunity to qualify for EPA section 608 certification is provided during this class. The overall goal of this class is to ensure students have attained the required skills to be successful entry level HVAC/R technicians.	EA100
	Total Hours:	**40**	**600**	**400**	**1000**		

CATALOG ADDENDUM

Refrigeration Technologies Program Information							
Course Number	**Title of Course**	**Semester Credit Hours**	**Lecture Hours**	**Lab Hours**	**Total Contact Hours**	**Course Description**	**Prerequisite Course(s)**
EA100	Fundamentals of Electricity	5	75	50	125	This course provides students with a foundational understanding of electrical concepts, from basic principles through introductory troubleshooting. Trainers are used to teach schematic wiring, meter use, and essential safety practices related to electrical systems, including grounding, working with energized circuits, and specific safety considerations when handling solar-electric components. Students will learn to work with common dual-voltage systems as well as single-phase and three-phase motors, gaining familiarity with core electrical principles. The course also introduces the principles behind solar energy, including how photovoltaic systems generate and distribute power. Learners will apply these concepts through hands-on activities using training equipment and practical scenarios. Instruction covers the use of various testing tools and their proper application, an introduction to common electrical and solar components, and fundamental techniques for diagnosing and resolving issues in both traditional and solar-electric systems.	None
HV100	Fundamentals of Refrigeration	5	75	50	125	In this class, students are introduced to the refrigeration cycle through class lecture and observing operating equipment. The material in this class is mechanical in nature and is limited to the mechanical and physical properties of refrigerants and the refrigeration cycle. The equipment in this class is used to safely demonstrate the varied states of refrigerant as it cycles through the system. The student will be introduced to many of the tools associated with the refrigeration industry such as: manifold gauge set, vacuum pumps, service wrenches, charging, and recovery equipment. The safety programs in this class will provide students with details on being in close proximity to rotating machinery and refrigerant handling. The class is also designed to familiarize the student with details on the mechanical troubleshooting process.	None
HV110	Comfort Systems - Residential	5	75	50	125	This class offers experience with residential split systems, packaged heat pump systems, air conditioners, gas furnaces, and evaporative coolers. Students are tasked with building schematics for air conditioning/heating systems and wiring the same systems having only the components of the system as reference. A further study of mechanical and electrical troubleshooting turns more hands-on in this class as students see the equipment come to life by their own hand. Gas piping, sizing, and installation are studied as it applies to furnace operation.	EA100, HV100
HV120	Comfort Systems – Commercial	5	75	50	125	This class offers a more technical approach to studying the concepts of indoor climate control. Students are tasked with safely removing and replacing components within residential and commercial HVAC systems such as fan motors, fans, electrical components, and compressors. Recovery and charging of refrigerants are an integral aspect of this class and students will apply their lessons to real equipment to round out the experience. Students will study brazing techniques using oxy/acetylene equipment and are required to put their knowledge to use on multiple tasks designed to enhance understanding of working within the confines of an HVAC unit. Refrigerant piping manipulation is introduced for study using hands-on techniques as students gain an overall familiarization of HVAC equipment. The opportunity to study and test on R410a and automotive air conditioning is provided in this class; successful students will achieve an R410a safety certification and EPA section 609 certification. An introduction to air balance and the associated equipment are also included for this class.	EA100, HV100
HV130	Refrigeration Systems & Practices	5	75	50	125	Students will learn to maintain, monitor, and manage residential and commercial grade walk-in refrigerators and freezers. A study of commercial grade ice makers such as: a flaker, cuber, and nugget type units provide an intense look at low temperature refrigeration equipment. Students will be required to change out a compressor, service and/or repair critically charged systems to enhance their overall understanding of mechanical and electrical troubleshooting. A variety of specialty tools related to equipment studied in this class will be introduced to round out the total experience.	EA100
HV200	Advanced Trouble-Shooting Techniques	5	75	50	125	The class introduces the operation and maintenance of reciprocating liquid chillers and stands as a review of the knowledge students have attained through previous courses. Electrical troubleshooting takes on a new intensity in this class as students are exposed to the E-STAR Trainer. The E-STAR Trainer is equipment developed to teach and hone electrical troubleshooting skills. A thorough study of mechanical troubleshooting and schematic wiring will raise the student to the level of technician. The opportunity to qualify for EPA section 608 certification is provided during this class. The overall goal of this class is to ensure students have attained the required skills to be successful entry level HVAC/R technicians.	EA100
	Total Hours:	**30**	**450**	**300**	**750**		

CATALOG ADDENDUM

Advanced Industrial Maintenance Technology Program Information							
Course Number	**Title of Course**	**Semester Credit Hours**	**Lecture Hours**	**Lab Hours**	**Total Contact Hours**	**Course Description**	**Prerequisite Course(s)**
AIM101	Industrial Facilities	5	75	50	125	This course will provide context of industrial facilities for students to build on the knowledge of the broad history of Industrial Maintenance and the facilities of the industry, up to and including the present-day landscape. An overview of the types of machinery, safety methods and control methods used to gain efficiency and drive safe production will be presented. Students will also learn symbols, working definitions of components and schematics of Pneumatic and Hydraulic circuits. After creating theoretical schematics, students will be presented with physical components from which they will create a test stand for the verification of working Motors, Pumps, Directional Valves, Flow Control Valves, Cylinders, and various other working components.	None
AIM103	Metrology & Inspections	5	75	50	125	In this course, students will learn the proper use, safety and care of many measuring devices. Course participants will learn to interpret and record precise measurements, while understanding manufacturer's tolerances and suggested applications of measurements. This course will include both standard and metric readings and calculations, as many industrial facilities use both units of measure. Dimensional inspections will be a covered topic as well. Students will be introduced to the process of conducting safe and practical inspections, from the component level During this course students will also be introduced to OSHA 10 standards.	None
AIM104	DC & AC Electrical Applications	5	75	50	125	This course will introduce students to electrical theory, application and units of measurement for DC electrical quantities. This course is designed to teach students electrical circuit schematics and diagrams, symbols and calculations utilizing Ohm's and Kirchhoff's Law. Additional concepts that will be explored are; DC power generation, consumption and measuring of DC quantities. Activities in this course will require students to design, calculate, build, measure and troubleshoot DC electrical circuits in series, parallel and in combination. Additional concepts that will be explored are; AC power generation, consumption and measuring of AC quantities. Activities in this course will require students to measure and/or calculate capacitance, impedance, transformation and sine waves. Included in this course is the NFPA 70e, Electrical Safety in the Workplace training module. Students will learn electrical safety and the corresponding hazard mitigation steps to remain safe while working with energized and non-energized circuits. LOTO, Arc Flash Boundaries and Job Hazard Analysis will round out the safety concentration of this course.	None
AIM105	Advanced Electrical Applications	5	75	50	125	This course will introduce students to an intermediate to advanced level of electrical theory, application and units of measurement for AC electrical quantities. This course is designed to teach students AC electrical circuit schematics and diagrams, symbols and calculations of multiple AC circuit components. Additional concepts that will be explored are; AC power generation, consumption and measuring of AC quantities. Activities in this course will require students to measure and/or calculate capacitance, impedance, transformation and sine waves. PLCs and HMIs will be learned in theory, as well as hands-on activities of physical terminations, ladder logic programming and automated control of 3-phase motors through I/O field sensors. During the delivery of this course, students will complete CPR/AED and Basic First Aid in the Workplace training and examination.	None
AIM106	Materials Processing & Fabrication	5	75	50	125	In this course, the student will learn to identify materials, such as; types of metals, types of composites and other workable materials. The selection, safety, and proper use of tooling and standard maintenance practices will be emphasized. The student will learn fabrication techniques through practice and demonstrating their ability to read a print, take precise measurements, utilize tools and equipment for shaping materials by cutting, grinding, drilling, tapping, bolting and broken bolt extraction and safety wiring. Students will complete standard inspections and learn to document findings and order up new equipment and components. For additional safety awareness, students will learn to safely use drill presses, band saws, bench grinders and various hand help power tools.	None
AIM107	Process Technology & Facility Maintenance	5	75	50	125	This course will cover basic principles of refrigeration, heating and boiler operations with a primary focus on industrial and commercial equipment. Students will become familiar with using computer technology and instrumentation to operate equipment systems and relate that to the industrial process. Instruction and lab activities will include monitoring operating conditions like temperature, pressure, level, flow rates, and the use of testing equipment on a high-pressure boiler. This course will also test students on the intermediate level of industrial facility maintenance, as it relates to; Main Building Power, Switchgear, Subpanels, Distribution of Power, Fuses, Transformers, Single Phase and 3-Phase Breakers and Disconnects, Automation & Robotics Basics, and CMMS, (Computerized Maintenance Management Systems). Students will be required to utilize Job Hazard Analysis templates for hazard communications and safety briefs prior to conducting lab activities, as part of the hazard mitigation process, as well as Hazardous Materials Communications and SDS confirmation of all chemicals provided in the lab.	None
Total Hours:		**30**	**450**	**300**	**750**		