Course Descriptions - Fall 2022

Applied Construction Math I

TECM 1001

16 Sessions 48 Hours

This course is designed for students who who need a refresher in basic math skills. Upon completion, this course will provide an understanding of fundamental operations using whole numbers, fractions, decimals, and percentages. Basic math skills are strengthened through applications found in the construction industry. Students are introduced to logical problem solving.

Backflow Awareness (16 CEU hours)

PFPB 2000

2 Sessions 16 Hours

Student must have a current Backflow Prevention Assembly Testers License
This course offers Texas Commission of Environmental Quality (TCEQ) continuing educations hours for those who have already received their BPAT license. The course consists of 16 hours of class and lab work, which will include all new and updated information from the industry and governmental bodies. The class is split with 4 hours in the lab and 12 hours in the classroom. Lunch will be provided.

Note 1: Students must bring a copy of the 10th Edition USC Manual for Cross-Connection Control, as required by TCEQ. Books are available for purchase upon request. Contact the CEF office for book cost and to request a copy PRIOR to the first day of class.

Note 2: This course also meets TCEQ Backflow continuing education requirements for Irrigation/Landscape Inspector License.

Backflow Practical Skills Refresher (8 CEU hours)

PFPB 1000

1 Sessions 8 Hours

Pre-requisite: Student must have a current Backflow Prevention Assembly Testers License.

This course offers Texas Commission of Environmental Quality (TCEQ) continuing educations hours for those who have already received their BPAT license. The course consists of 8 hours of of class and lab work, which will include all new and updated information from the industry and governmental bodies. The class is split with 7 hours in the lab and 1 hour in the classroom. Lunch will be provided.

Note: This course also meets TCEQ Backflow continuing education requirements for Irrigation/Landscape Inspector License.

Backflow Prevention Assembly Tester License

PFPB 1047

5 Sessions 40 Hours

Pre-requisite: Student is required to have two (2) years experience in a water related industry such as Plumbing, Sprinkler Fitting, Fire Alarm, Irrigation, etc.

This course offers Texas Commission of Environmental Quality (TCEQ) certification in Backflow Prevention. Using our new state-of-the-art classrooms and labs with expert instruction that is required for certification and testing of backflow assemblies in the state of Texas. Course topics include the history of backflow prevention, testing and repair of assemblies, (RPZA; DCVA; PVB; and SRVB) cross connection control program with state and local ordinance information and all related subjects. Course is approved for 8-hour CEU in Customer Service Inspectors License, Irrigator License, Wastewater Operators License, Water Operators License and Water Treatment Specialist License.

Lunch is provided all 5 days.
Note 1: Students must bring a copy of the 10th Edition USC Manual for Cross-Connection Control, as required by TCEQ. Books are available for purchase upon request. Contact the CEF office for book cost and to request a copy PRIOR to the first day of class. 972-574-5200

Note 2: This course also meets TCEQ Backflow requirements for Irrigation/Landscape Inspector License.

Basic Commercial Blueprint Reading

DFTG 1023

10 Sessions 30 Hours

This course is designed for office, field and professional support staff. Topics include: Evolution of the Construction Project-The Development of the Drawings & Specifications; Background Principles (Cracking the Code); Drawing Types Used in All Categories of Drawings; Reading Drawings for Information; Overview of Architectural & MEP Drawings and Specifications.

Black Steel Pipe

1 Sessions 4 Hours

This course is designed for field personnel. This is a four (4) hour hands-on seminar. The most updated information and instruction will be provided on the following topics: Cutting, reaming, threading/dies, joint/pipe dope/fitting identification and pipe wrench use.

Black Steel Pipe

1 Sessions 4 Hours

This course is designed for field personnel. This is a four (4) hour hands-on seminar. The most updated information and instruction will be provided on the following topics: Cutting, reaming, threading/dies, joint/pipe dope/fitting identification and pipe wrench use.

Cast Iron Piping

1 Sessions 4 Hours

This course is designed for field personnel. This is a four (4) hour hands-on seminar. The most updated information and instruction will be provided on the following topics: Cutting/snap cutters, joining/no hub bands, and fitting identifications.

Cast Iron Piping

1 Sessions 4 Hours

This course is designed for field personnel. This is a four (4) hour hands-on seminar. The most updated information and instruction will be provided on the following topics: Cutting/snap cutters, joining/no hub bands, and fitting identifications.

Commercial Field Engineering I

SRVY 1015

16 Sessions 56 Hours

Prerequisite: English or Spanish Math & Reading Test or Applied Construction Math Class & ESL Placement Test.
All testing must be completed no later than Friday August 19, 2022.
The course will introduce the students with a role of a site layout technician including drawings used in construction buildings today. Using the Site Layout 1 guide the course topics will include: Introduction to Site Layout; Surveying Math; Surveying Equipment Use and Care; and Blueprint Reading for Surveyors.

Commercial HVAC Service I-A

HART 1007

18 Sessions 80 Hours

Prerequisite: English or Spanish Math & Reading test or Applied Construction Math class; ESL test or class.

All TABE Testing must be completed no later than Friday August 19, 2022.
The course topics are Basic Safety (Construction Site Safety Orientation); Introduction to HVAC; Trade Mathematics; Basic Electricity; Basic Cooper & Plastic Pipe Practices; and Soldering & Brazing.

Note 1: EPA Section 608 Universal Certification is highly recommended to graduate from this program.

Note 2: Graduation Requirement: Students enrolled in HVAC I-B will be required to take the EPA Section 608 Refrigerant Recovery Exams. This EPA Section 608 Refrigerant Recovery class is MANDATORY for all students enrolled in HVAC I-B, unless the student has already received the EPA Core and Type II Certification. Proof of EPA Certification is required.

Commercial HVAC Service II-A

SRVY 1001

18 Sessions 80 Hours

Prerequisite: Commercial HVAC Service I-B

The course topics are Metering Devises, Compressors, Refrigerants and Oils, Leak Detection, Evacuation, Recovery and Charging, Alternating Current, Sheet Metal Duct Systems, and Fiberglass and Flexible Duct Systems.

Note: EPA Section 608 EPA Core and Type II Certification is prerequisite for students going into HVAC III-A. If you have not passed this section of the exam, you should register to retake the EPA Exam prior to the completion of HVAC Level II-B.

Commercial HVAC Service IV-A

CBFM 2011

18 Sessions 80 Hours

Pre-requisite: Commercial HVAC III-B

Course topics are Construction Drawings & Specifications, Air Quality Equipment, Indoor Air Quality, Commercial Airside Systems, System Air Balancing, and Energy Conservation Equipment.

Construction Site Leadership I

CNBT 1009

12 Sessions 48 Hours

Introduction of Fundamentals of Crew Leadership will teach the skills to be an effective leader, including the ability to communicate effectively; provide direction to your crew, and effectively plan and schedule the work of your crews.

Electrical I-A

ELPT 1021

17 Sessions 80 Hours

Pre-Requisite: English or Spanish Math Test or Applied Construction Math Class and English or Spanish Reading Test and ESL Placement Test if tests are taken in Spanish.
All testing must be completed no later than Friday August 19, 2022.
The course topics are Build Your Future in Construction; Occupational Overview: The Electrical Industry; Basic Safety (Construction Site Safety Orientation); Safety for Electricians; Introduction to Hand Tools; Introduction to Power Tools; Hand Bending; Device Boxes; Introduction to Basic Rigging, Introduction to Construction Math; Introduction to Electrical Circuit; Electrical Test Equipment; Basic Communication Skills; and Basic Employability Skills.

Note: All Electrical students are required to attend one additional class of 4 hour class

Electrical II-A

HART 1001

18 Sessions 80 Hours

Prerequisite: Electrical I-B

The course topics are Alternating Current; Motors: Theory & Application; Electrical Lighting; Conduit Bending; Pull and Junction Boxes; and Conductor Installations.

Note 1: Students must have a copy of the 2020 NEC edition.
Note 2: All students are required to attend one (1) additional 4 hour class.

Electrical III-A

ELPT 1045

18 Sessions 80 Hours

Prerequisite: Electrical II-B

The course topics are Load Calculations- Branch and Feeders Circuits; Conductor Selection and Calculations; Practical Applications of Lighting; Hazardous Locations; and Overcurrent Protection.

Note: Students must have a copy of the 2020 NEC edition.

Electrical IV-A

ELPT 1041

18 Sessions 80 Hours

Prerequisite: Electrical III-B

This level is crucial for Journeyman Exam Preparation. Course topics are Load Calculations- Feeders & Services, Health Care Facilities, Standby & Emergency Systems, Basic Electronic Theory, and Fire Alarm Systems.

Note: Students must have a copy of the 2020 NEC edition.

Electrical Journeyman Prep

ELPT 2001

12 Sessions 48 Hours

Pre-requisite - All Required: (1) At least three (3) years experience in Electrical Trade. (2) Basic math skills with ability to solve simple algebraic equations.

This class will consist of an intensive NEC review of Services and Service Equipment; Wiring Methods and Installation; Cabinets, Panelboards, Switchboards, Boxes and Conduit Bodies; Conductors; Motors and Generators; Utilization Equipment and Devices; Special Occupancies and Uses; Ambient Temperature and Other Conductor Derating Factors; Low Voltage Systems NEC requirements; and Hazardous locations.

Note: Students must have a copy of the 2020 NEC edition.

Electrical Master Prep

ELPT 1040

13 Sessions 52 Hours

Pre-requisite - All Required: (1) At least three (3) years experience in Electrical Trade and preferably some classroom hours. (2) Basic math skills with ability to solve simple algebraic equations. (3) Journeyman's License

This class will consist of an intensive NEC review of Services and Service Equipment; Wiring Methods and Installation; Conductors; Special Occupancies and Uses; Ambient Temperature Derating; electrical calculations of single family, multi-family and two family dwellings, electrical calculations of commercial structures, i.e. schools, offices, stores, banks, marinas, etc.

Note: Students must have a copy of the 2020 NEC edition.

English as a Second Language I

COMG 1000

16 Sessions 48 Hours

Pre-requisite: None required
This course prepares students to communicate orally in both public and work environments. Emphasis is placed on developing language functions, pronunciation, listening skills, and improving social and intercultural skills.

NOTE: Test-Out available for Level I at no extra charge.

Este curso prepara al alumno para communicarse con confianza en situaciones sociales y en el trabajo. Se desarollan las varias funciones del lenguaje, se mejora la pronunciación y compressión auditiva y se practica la comunicacion social y transcultural.

Aprobación por medio de examen disponible para Nivel I sin cargo extra.

English as a Second Language II

COMG 1001

16 Sessions 48 Hours

Pre-requisite: English as a Second Language I
Students are taught to communicate orally in public and work environments. Emphasis is placed on developing language functions, pronunciation, listening skills, improving social and intercultural communication skills. Students acquire reading skills, vocabulary development, critical thinking skills, and the use of resources.

Continuación de ESL I. Este curso prepara al alumno para comunicarse con confianza en situaciones sociales y en el trabajo. Se desarollan las varias funciones del lenguaje, se mejora la pronunciación y comprensión auditiva y se practica la comunicación social y transcultural. Los cursos instruye a los estudiantes, desarrollo de vocabulario, pensar en forma critica y el uso de los varios recursos disponibles en la institución.

English as a Second Language III

COMG 1004

16 Sessions 48 Hours

This course is a continuation of ESL II. This course prepares students to communicate orally in both public and work environments. Emphasis is placed on developing language functions, pronunciation, and listening skills, and improving social and intercultural communication skills. The lessons instruct students in reading skills vocabulary development, critical thinking skills, and the use of resources.

Continuación de ESL II. Este curso prepara al alumno para comunicarse con confianza en situaciones sociales y en el trabajo. Se desarollan las varias funciones del lenguaje, se mejora la pronunciación y comprensión auditiva y se practica la comunicación social y transcultural. Los cursos instruye a los estudiantes, desarrollo de vocabulario, pensar en forma critica y el uso de los varios recursos disponibles en la institución.

Fixture Carrier & Valves/Devices Identification

1 Sessions 4 Hours

This course is designed for field personnel. This is a four (4) hour hands-on seminar. The most updated information and instruction will be provided on the following topics: Fixture carrier identification like lavatory, water closet/ single & double, urinal. Identify different valves, ball, butterfly, gate, backflow preventors, RPZ’s, PRV’s and lead-free identification.

Fixture Carrier & Valves/Devices Identification

1 Sessions 4 Hours

This course is designed for field personnel. This is a four (4) hour hands-on seminar. The most updated information and instruction will be provided on the following topics: Fixture carrier identification like lavatory, water closet/ single & double, urinal. Identify different valves, ball, butterfly, gate, backflow preventors, RPZ's, PRV's and lead-free identification.

Pipefitting I-A

PFPB 1008

18 Sessions 80 Hours

Prerequisite: English Math Test or Applied Construction Math Class and English Reading Test
All testing must be completed no later than Friday August 19, 2022.
Course topics are Core: Build Your Future in Construction, Orientation to the Pipefitting Craft; Basic Safety (Construction Site Safety Orientation); Ladders and Scaffolds; Introduction to Hand tools; Pipefitting Hand Tools; Introduction to Power Tools; Pipefitting Power Tools; and Introduction to Basic Rigging.

Pipefitting II-A

WLDG 1035

18 Sessions 80 Hours

Pre-requisite: Pipefitting I-B
Course topics are Piping Systems; Drawings and Detail Sheets; Identifying Installing Valves; Pipefitting Trade Math; and Threaded Pipe Fabrication.

Pipefitting III-A

PFPB 2041

17 Sessions 80 Hours

Pre-requisite: Pipefitting II-B
Course topics are Introduction to Basic Rigging; Rigging Practices; Standards and Specifications; Advanced Pipefitting Math; Pipe Off Sets; and Motorized Equipment Two.

Note: All students are required to attend additional four hour classes.

Pipefitting IV-A

PFPB 2043

18 Sessions 80 Hours

Pre-requisite: Pipefitting III-B
Course topics are Advanced Pipe Fabrication, and Special Piping, and Stress Relieving and Aligning.

Piping Isometric

PFPB 1006

16 Sessions 48 Hours

This class defines an Isometric Drawing, it incorporates commercial drawings, mechanical pipe and plumbing details and shows how to draw in an isometric format. Emphasis is stressed on how to utilize isometrics in construction day to day operations, including planning of material take offs, scheduling manpower, equipment and etc.

Plumbing I-A

PFPB 1013

18 Sessions 80 Hours

Pre-Requisite: English or Spanish Math Test or Applied Construction math Class and English or Spanish Reading Test and ESL Placement Test.
All Testing must be completed no later than Friday August 19, 2022.

The course topics are: Build Your Future in Construction; Basic Safety (Construction Site Safety Orientation); Plumbing Safety; Introduction to Plumbing Profession; Introduction to Hand Tools; Introduction to Power Tools; Tools of the Plumbing Trade; Introduction to Construction Math; Introduction to Plumbing Math; Copper Tube & Fittings and Cast-Iron Pipe and Fittings.

Plumbing II-A

PFPB 1043

18 Sessions 80 Hours

Prerequisite: Plumbing I-B

The course topics are: Plumbing Math Two; Reading Commercial Drawings; Structural Penetrations, Insulation, and Fire Stopping; Installing & Testing DWV Piping; Installing Roof, Floor & Area Drains; and Types of Valves.

Note: All students are required to attend one (1) additional 4 hour class.

Plumbing II-A

PFPB 1043

18 Sessions 80 Hours

Prerequisite: Plumbing I-B

The course topics are: Plumbing Math Two; Reading Commercial Drawings; Structural Penetrations, Insulation, and Fire Stopping; Installing & Testing DWV Piping; Installing Roof, Floor & Area Drains; and Types of Valves.

Note: All students are required to attend one (1) additional 4 hour class.

Plumbing III-A

PFPB 1053

17 Sessions 80 Hours

Pre-requisite: Plumbing II-B
The course topics are: Applied Math; Sizing & Protecting the Water Supply System; Potable Water Supply Treatment; and Types of Venting.

Note: All students are required to attend one (1) additional 4 hour classes.

Plumbing IV-A

PFPB 1055

18 Sessions 80 Hours

Pre-requisite: Plumbing III-B

The course topics are: Business Principles for Plumbers, Fundamentals of Crew Leadership, Water Pressure Booster & Recirculation System, and Indirect & Special Waste.

Plumbing Journeyman Exam Prep

PFPB 2005

1 Sessions 8 Hours

This seminar provides a review of subjects that are needed to pass the written exam for a plumber's journeyman license. It also includes hands-on experience for the preparation of the practical section of the exam. This seminar will also include a demonstration on our custom designed house, comparable to the 2-story house used in the State of Texas Plumbing Exam in Austin.

Lunch is included.

Plumbing Math

1 Sessions 4 Hours

This course is designed for field personnel. This is a four (4) hour hands-on seminar. The most updated information and instruction will be provided on the following topics: Addition/ subtraction, fractions, decimals, decimal feet, and offset 45’s and rolling offsets.

PVC Joining

1 Sessions 4 Hours

This course is designed for field personnel. This is a four (4) hour hands-on seminar. The most updated information and instruction will be provided on the following topics: Cutting, gluing, fittings identifications/ direct-flow and schedules/solid/foam core.

PVC Joining

1 Sessions 4 Hours

This course is designed for field personnel. This is a four (4) hour hands-on seminar. The most updated information and instruction will be provided on the following topics: Cutting, gluing, fittings identifications/ direct-flow and schedules/solid/foam core.

Sheet Metal I-A

MCHN 1001

18 Sessions 80 Hours

Pre-requisite: English Math and Reading Tests

The course topics are Core: Build Your Future in Construction; Introduction to Construction Math; Sheet Metal Math and Measurements; Basic Safety (Construction Site Safety Orientation); Introduction to Hand Tools; Introduction to Power Tools; Sheet Metal Tools and Equipment; Plasma Arc Cutting; Introduction to Basic Rigging; Introduction to Material Handling and Occupational Overview: The Sheet Metal Industry.

Soldering and Brazing with Copper

1 Sessions 4 Hours

This course is designed for field personnel. This is a four (4) hour hands-on seminar. The most updated information and instruction will be provided on the following topics: Copper material identification; preparing and installing brazed copper; preparing and installing copper material. Hands-on brazing project; and safety.

Soldering and Brazing with Copper

1 Sessions 4 Hours

This course is designed for field personnel. This is a four (4) hour hands-on seminar. The most updated information and instruction will be provided on the following topics: Copper material identification; preparing and installing brazed copper; preparing and installing copper material. Hands-on brazing project; and safety.

Spanish for Construction Sites

COMG 1011

8 Sessions 16 Hours

This is a comprehensive Spanish language program that provides immediate access to functional language skills for non-Spanish-speaking construction site personnel. This course will also cover the many issues involved with effectively supervising Spanish-speaking employees. The language component utilizes phonetic encoding to present the most important Spanish commands, questions, and phrases pertinent to the construction site.

STP 1 - Leadership & Motivation

BMGT 1020

6 Sessions 24 Hours

This course will describe the value of effective supervision of workers and improve the construction supervisor's ability to lead and motivate others. Topics include: The Dollar and Sense of People in Construction; The Role of the Construction Supervisor; Helping People Perform Better; Motivating and Leading Others; Positive Feedback; Training and Orienting Crew Members; Teams and Team Building; and Leadership Skills in Action.

STP 2 - Communication

BMGT 1022

6 Sessions 24 Hours

Pre-requisite: None Required
The course presents a body of knowledge and skills that today's construction supervisors need in order to be effective communicators on their job site. Topics include; Effective Communication; Learning to Listen; Carrying on Conversations; Persuasion, Negotiation, and Confrontation; Communicating with Your Crew; Putting it in Writing; Meetings that Work; Electronic Communication; and Improving Communication.

STP 3 - Planning & Scheduling

CNBT 1072

5 Sessions 20 Hours

Pre-requisite: None Required
This course will help construction supervisors understand ways in which planning and scheduling saves time and money, while increasing quality in the construction process. Topics include: Preparing the Project Plan; Communicating the Plan; The Critical Path; Computer Use in Scheduling; Using the Schedule on the Jobsite; Updating the Construction Schedule; The Schedule as Documentation; and Using Planning and Scheduling.

STP 4 - Contract Documents

CNBT 1073

5 Sessions 20 Hours

Pre-requisite: None Required
This course will provide information about contract documents and construction law to help supervisors recognize the roles and responsibilites of all contracted parties, to develop and the understanding of how contract documents can be helpful to solve problems and resolve conflicts, and to develop positive relationships between all parties in the construction process. Topics include: Introduction to Contract Documents and Construction Law; Creating a Positive Environment through Partnering; Contractual Relationships; Contract Forms and Documents; Managing General Conditions; Good Documentation Practices; Changes; Differing Site Conditions; Time Impacts; and Negotiation of Resolutions.

STP 5 - Improving Productivity & Managing Project Cost

BMGT 1021

8 Sessions 30 Hours

Pre-requisite: None Required
This course covers understanding how project estimates are compiled, how to compare actual project costs with those estimated and how to control costs to meet the estimate. This course also details how productivity is measured, how the supervisor plays a major role in increasing jobsite productivity and how a small increase in productivity can have a significant impact on the time and cost of a project.
Topics include: Construction Estimates; Who Controls Project Costs; Reporting and Analyzing Actual Costs; Planning for Cost Control; Cost Control Strategies; Labor Cost Variances; Working with Project Partners; Managing Risk and Loss Productivity through Pre-Planning; New Skills for Effective Supervision; Personnel Management; Equipment Management for Productivity Improvement; Jobsite Productivity, Planning and Scheduling; Quantifying Lost Labor Productivity; and Record Keeping, Control and Defect Analysis.

STP 6 - Risk Management & Problem Solving

OSHT 1015

6 Sessions 24 Hours

Pre-requisite: None Required
This course will cover the roles and responsibilities of a construction supervisor in accident prevention and loss control.
Topics include: Safety Leadership, Communication and Expectations; Planning for Site Safety Management; Site Security and Protection; Multi-Employer Jobsite Safety; Cosntruction Risk Management; Safety and Human Resources; and Regulatory Procedures, Record Keeping and Documents.

Water Treatment Specialist (8 CEU hrs)

EPCT 1015

2 Sessions 16 Hours

This 16 hour course counts towards 8 Texas Commission of Environmental Quality (TCEQ) continuing educations hours for those who have already received their WTS license. The course consists of class and lab work, and includes all new and updated information from the industry and governmental bodies. The class is split with 4 hours in the lab and 12 hours in the classroom.
Lunch will be provided.

Note: Students must bring a copy of the 10th Edition USC Manual for Cross-Connection Control, as required by TCEQ. Books are available for purchase upon request. Contact the CEF office for book cost and to request a copy PRIOR to the first day of class.

Welding Construction I-A

WLDG 1023

18 Sessions 80 Hours

Pre-Requisite: English or Spanish Math Test or Applied Construction Math Class and English or Spanish Reading Test and ESL Placement Test.
All Testing must be completed no later than Friday August 19, 2022.

Consists of 80 hours: 70% hands-on per semester. Course topics will include Introduction to Welding/ Review Syllabi; Basic Safety (Construction Site Safety); Introduction to Construction Math; Introduction to Hand Tools; Introduction to Power Tools; Basic Communication Skills; Basic Employability Skills; Introduction to Basic Rigging; Oxyfuel Cutting; Welding Safety; SMAW-Electrodes; Base Metal Preparation; SMAW - Beads and Fillet Welds; and SMAW- Groove Welds with Backing- Plate.

All students are rerquired to attend two (2) additional class of four (4) hours.
Students are required to enroll in both Welding Construction I-A and Welding Construction I-B

Welding Construction I-B

WLDG 1007

17 Sessions 80 Hours

Pre-requisite: Welding Construction I-A
Consists of 80 hours: 70% hands-on per semester. Course topics will include Core: Build Your Future in Construction; Basic Safety (Construction Site Safety); Introduction to Construction Math; Introduction to Construction Drawings; Introduction to Material Handling; Oxyfuel Cutting; SMAW- Equipment and Set Up; Weld Quality; Joint Fit-Up and Alignment; SMAW - Beads and Fillet Welds; and SMAW- Groove Welds with Backing- Plate

All students are rerquired to attend two (2) additional class of four (4) hours.
Students are required to enroll in both Welding Construction I-A and Welding Construction I-B.

Welding Construction III-A

WLDG 2013

17 Sessions 80 Hours

Pre-requisite: Welding Construction II-A & B
Course topics will include: SMAW-Open Root Pipe Welds; SMAW- Stainless Steel Plate & Pipe Groove Welds; Preheat and Postheating of Metals; GTAW- Plate and GTAW - Carbon Steel Pipe.

Students are required to enroll in both Welding Construction III-A and Welding Construction III-B.

All students are rerquired to attend two (2) additional class of four (4) hours.

Welding Construction III-B

WLDG 2070

18 Sessions 80 Hours

Pre-requisite: Welding Construction II A & B

Course topics will include: SMAW- Open Root Pipe Welds; SMAW - Stainless Steel Plate and Pipe Groove Welds; Physical Characteristics & Mechanical Properties of Meals; GTAW - Equipment and Filler Metals; GTAW- Plate; and GTAW- Carbon Steel Pipe.

Students are required to enroll in both Welding Construction III-A and Welding Construction III-B.

All students are rerquired to attend two (2) additional class of four (4) hours.