IBEW

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Journeyman Upgrade and Continuing Education Course Catalog 2024-25

August 2024

Dear Member,

Enclosed you will find the Continuing Education Course Catalog for the 2024-2025 educational session. After examining this catalog and making your final selections, please print and fill out the registration form. You should receive notification that the Training Alliance has you registered for your classes. If you have any questions regarding your selections or registration, please call the apprenticeship office during regular office hours, Monday through Friday. Please make every effort to attend those classes that you register for. Good luck in all of your endeavors.

Yours in Brotherhood,

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CODE OF EXCELLENCE
IBEW

The Code of Excellence is a program designed to bring out the best in our construction members and demonstrate to our customers that IBEW members:

- ***Perform the highest quality and quantity of work***
- ***Utilize their skills and abilities to the maximum***
- ***Exercise safe and productive work practices***

The Code of Excellence is not only about an IBEW job built right the first time, on schedule and under budget; it is also about pride in IBEW membership and craftsmanship and leaving a lasting impression of quality workmanship with the customer… thus, prompting him to again employ the IBEW on future projects. The Code of Excellence program is also a means to build and project positive attitudes about who we are and the work we do… on and off the job.

Local Union training with respect to the Code of Excellence program may be facilitated by an International Representative but, regardless of delivery method or by whom, the Code of Excellence program training is to convey a strong message that IBEW construction members will:

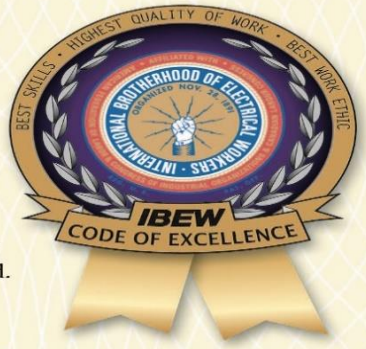
***C**ome to work on time, fit for duty and ready to work.*
***O**bey recognized customer and employer rules.*
***D**emonstrate zero tolerance for alcohol and substance abuse.*
***E**xercise proper safety, health and sanitation practices.*

***O**wn up to '8 for 8' and be on the job unless otherwise allowed or authorized to leave.*
***F**ollow safe, reasonable and legitimate management directives.*

***E**ncourage respect for the customer's rights and property, as well as for others on the job.*
*e**X**ercise the skills and abilities of the trade.*
***C**are for tools and equipment provided by the employer.*
***E**liminate waste and other forms of property destruction, including graffiti.*
***L**imit lunch and break times to allocated periods; adhere to established start and quit times.*
***L**eave inappropriate behavior to those of lesser knowledge.*
***E**mploy the proper tools for the job and maintain personal tool responsibilities.*
*do **N**ot solicit funds or sell merchandise without the Business Manager's approval.*
***C**urtail idle time or pursuit of personal business during work hours, including cell phone use.*
***E**xpel job disruptions and refuse to engage in slowdowns or activities designed to extend the job or create overtime or any other conduct that cast the IBEW in a bad light.*

As with Stewards, IBEW members employed in management/supervision must have knowledge of the Code of Excellence program principles, its relationship to IBEW organizing and overall membership responsibilities to the Brotherhood. Yet, more importantly, members in these roles need to know how effectively managing their jobs will be a corresponding obligation to the Code of Excellence program. IBEW 'rank and file' members honoring the Code of Excellence program will rightfully have similar expectations of Brothers and Sisters in management/supervision, with these being in the areas of:

- Management responsibilities to the collective bargaining agreement.
- Total acceptance of supervisory positions and related responsibilities.
- Communication and cooperation with the job Steward.
- Employee encouragement but, if necessary, fair and consistent discipline,
- Job safety, health and sanitation needs or requirements.
- Ample job layout/directions to minimize down time and maximize employee productivity.
- Availability and timely delivery of necessary materials.
- Proper number and type of tools and equipment to ensure job progress.
- Maintenance and upkeep of tools and equipment.
- Storage and protection of employer and employee tools and equipment.
- Employ adequate number of employees to perform efficiently or, conversely, limit number of employees to the work at hand.



Residential Wireman to Journeyman Wireman Upgrade Program of Studies

Members Who Completed the IBEW Local Union #5 Residential Wireman Apprenticeship Need to Complete the Following Courses before Becoming a Journeyman Wireman:

Course Title	Completion Date	Comments
Basic Tele-Data (Hands-on)		
Blueprint Reading / Building Information Modeling (BIM)		
Conduit Bending		
Fire Alarm		
First Aid / CPR / Defibrillation		
Motor Controls		
OSHA 10 Hour		
70E Safety Related Work Practices		

Organized Residential Wireman to Journeyman Wireman Upgrade Program of Studies

Members Who Were Organized into the IBEW Local Union #5 as a Residential Wireman Need to Complete the Following Courses Before Becoming a Journeyman Wireman:

Course Title	Completion Date	Comments
AC Theory		
Applied Codeology		
Basic Tele-Data (Hands-on)		
Blueprint Reading / Building Information Modeling (BIM)		
Conduit Bending		
DC Theory		
Fire Alarm		
First Aid / CPR / Defibrillation		
Motor Controls		
OSHA 10 Hour		
70E Safety Related Work Practices		

Telecommunications Installer Program of Studies

Telecommunications Installer to Telecommunications Technician Program

Course Title	Completion Date	Comments
Basic Tele-Data (Hands-on)		
Blueprint Reading / Building Information Modeling (BIM)		
Conduit Bending		
First Aid / CPR / Defibrillation		
Fusion Splicing I		
Fusion Splicing II		
ICRA		
OSHA 10 Hour		

Telecommunications Installer to Journeyman Wireman Program

Course Title	Completion Date	Comments
AC Theory		
Applied Codeology		
Blueprint Reading / Building Information Modeling (BIM)		
Conduit Bending		
DC Theory		
Fire Alarm		
First Aid / CPR / Defibrillation		
Motor Control		
OSHA 10 Hour		
70E Safety Related Work Practices		

Telecommunications Technician to Journeyman Wireman Program

Telecommunications Technician Minimum Requirement Courses

Course Title	Completion Date	Comments
Basic Tele-Data (Hands-on)		
Blueprint Reading / Building Information Modeling (BIM)		
Conduit Bending		
First Aid / CPR / Defibrillation		
Fusion Splicing I		
Fusion Splicing II		
ICRA		
OSHA 10 Hour		

Telecommunications Technician to Journeyman Wireman Program

Course Title	Completion Date	Comments
AC Theory		
Applied Codeology		
Blueprint Reading / Building Information Modeling (BIM)		
Conduit Bending		
DC Theory		
Fire Alarm		
First Aid / CPR / Defibrillation		
Motor Control		
OSHA 10 Hour		
70E Safety Related Work Practices		

Your Course Description and Schedule Packet

Course Description and Times

Course Title / Code

AC Theory / 1A

Course Description

This is a very insightful class about AC Theory and the many different factors that affect it, including: inductance, capacitance, resistance, and overall impedance. This course is highly recommended for those who have entered the industry through organization. Members who are seeking to upgrade their classification need DC Theory first. Please refer to course titled '**DC Theory**' for more information concerning DC Theory.

Pre-requisite:

DC Theory (Course Code 6A)

Basic Computer Skills

Positive Attitude

Required Classroom Materials:

Calculator

Straight Edge (Ruler)

Note Paper

Highlighters

Pencils

Date(s):	February 15th 2025 – April 26th 2025
Day(s):	Saturdays
Time(s):	8:00am – 3:00pm
Approximate Classroom Time:	60 Hours
Class Size Min/Max:	None
Course Code:	1A

Course Description and Times

Course Title / Code

Access Control / 2A

Course Description

This is a non-certification course introducing the fundamentals of access control wiring practices and hardware, along with troubleshooting. Programming, software, and technology behind the scenes will be demonstrated and discussed. Upon completion, participants will have a basic understanding of installation and termination techniques related to access control systems.

Pre-requisites:

Positive Attitude

Required Classroom Materials:

Calculator

Notepaper

Highlighters

Pencils

Date(s):	February 8th 2025 – February 15th 2025
Day(s):	Saturdays
Times(s):	8:00am – 3:00pm
Approximate Classroom Time:	12 Hours
Class Size Min/Max;	Max 8
Course Code:	2A

Course Description and Times

Course Title / Code

Applied Codeology / 3A

Course Description

Use of the National Electric Code can be frustrating when you are unfamiliar with the layout of the document. This course will show you the 'Plan, Build, Use' method for better use and understanding of the Codebook. This easy to use method should make you much more comfortable using the NEC. The class may discuss a few of the more Significant Code Changes that have been implemented. Additionally we hope to introduce methods for important Code Calculations. The addition of a Significant Changes module and an introduction to Code Calculations alone should make this class a must see.

Pre-requisites:

Basic Computer Skills

Positive Attitude

Required Classroom Materials:

Calculator

Notebook

Highlighters

Pencils

2023 National Electric Code Tabs (Available from Amazon)

Date(s):	September 28th 2024 – November 2nd 2024
Day(s):	Saturdays
Time(s):	8:00am – 3:00pm
Approximate Classroom Time:	40 hours
Class Size Min/Max:	None
Course Code:	3A

Course Description and Times

Course Title / Code

Blueprint Reading, Building Information Modeling (BIM) / 4A

Course Description

This new and exciting offering includes the Electrical Training Alliances newly released Construction Drawings course as well as some of our more traditional Residential, Commercial and Industrial Blueprint Reading course offering. The exciting part is the inclusion of our Building Information Modeling (BIM) course. Your local training alliance has a Trimble Robotic Total Station (RTS) and the BIM program is up and running. After a short introductory information session, this part of the class will be nearly all hands on. Covered information will include:

-Proper assembly and setup of all equipment.

-Linking the Trimble tablet and its software with the RTS.

-Importing CAD files, locating and opening jobs for layout and creating new jobs.

-Measuring distances, layout points and collect points.

-Create job reports.

(This course has become popular and additional classes can be scheduled as needed.)

Pre-requisites

Basic Computer Skills

Positive Attitude

Required Classroom Materials:

Calculator

Notebook

Highlighters

Pencils

Straight Edge (Ruler)

Date(s):	September 28th 2024 – November 23rd 2024
Day(s):	Saturdays
Time(s):	8:00am – 3:00pm
Approximate Classroom Time:	54 Hours
Class Size Min/Max:	None
Course Code:	4A

Course Description and Times

Course Title / Code

Conduit Bending / 5A

Course Description

This is a hands-on course that uses all of the latest conduit tools. This could be an excellent review for journeyman as well as a great class for our recently organized members who have not been exposed to as much conduit work.

Pre-requisites:

Positive Attitude

Required Classroom Materials:

Notebook

Pencils

Hand Tools

Safety Glasses

Gloves

Date(s):	January 18th 2025 – February 22nd 2025
Day(s):	Saturdays
Time(s):	8:00am – 3:00pm
Approximate Classroom Time:	36 Hours
Class Size Min/Max	Max 10
Course Code	5A

Course Description and Times

Course Title / Code

DC Theory / 6A

Course Description

The course will start with Ohm's Law and continue through simple series circuits. From there it will move through parallel and combination circuits. This is truly the base for all electrical theory. The course is highly recommended for those who have entered the industry through organization.

Pre-requisites:

Basic Computer Skills

Positive Attitude

Required Classroom Materials:

Calculator

Notebook

Pencils

Highlighters

Straight Edge (Ruler)

Date(s):	November 16th 2024 – February 1st 2025
Day(s):	Saturdays
Time(s):	8:00am – 3:00pm
Approximate Classroom Time:	60 Hours
Class Size Min/Max:	None
Course Code:	6A

Course Description and Times

Course Title / Code

70E Electrical Safety Related Work Practices / 7A

Course Description

There are several different factors that must be considered when discussing electrical safety. This course will try to address issues that are often overlooked that could potentially be fatal if not dealt with properly. The goals we would like to achieve in this course include the following:

- Increased awareness by identifying electrical hazards.
- Achieve a better understanding of the NFPA 70E publication.
- Realize all of the protective equipment available to us, as well as understanding the proper use of protective equipment.
- Learn how to develop an electrically safe work condition.

This course could be scheduled for additional times as needed.

Pre-requisites:

Basic Computer Skills

OSHA 10 Hour is recommended (Course Code 19A)

Positive Attitude

Required Classroom Materials:

Calculator

Notebook

Pencils

Date(s):	January 18th 2025 – February 15th 2025
Day(s):	Saturdays
Time(s):	8:00am – 3:00pm
Approximate Classroom Time:	36 Hours
Class Size Min/Max:	None
Course Code:	7A

Course Description and Times

Course Title / Code

Electrical Vehicle Charging Systems (EVCS-17) Based on 2017 NEC / 8A

Course Description

The Electric Vehicle Charging Systems course serves as an instructional primer for the Electric Vehicle Infrastructure Training Program (EVITP) Certification Exam. The course provides an introduction of charging products and associated equipment on the market today. Electrical Workers completing this training go to work with the ability to implement best practices in areas such as charging station equipment, infrastructure site assessment, load calculation, installation, commissioning, and troubleshooting. Through an agreement with EVITP, their certification exam is provided at the conclusion of this course. ***This course will be when the class filled and as needed! Please call and reserve your seat now! The past year saw tremendous interest and the class was conduct several times.***

Pre-requisites:

Basic Computer Skills

Positive Attitude

Required Classroom Materials:

Calculator

Notebook

Pencils

Date(s):	Will Be Held When Class is Filled
Day(s):	Tuesdays and Thursdays
Time(s):	5:30pm – 9:00pm
Approximate Classroom Time:	18 Hours
Class Size Min/Max:	8/12
Course Code:	8A

Course Description and Times

Course Title / Code

Energy Storage and Micro-gridding (ESAM) 9A

Course Description

Participants will gain greater understanding of energy management using our new lab. This lab is capable of demonstrating common energy storage solutions for work and home. The lab is also able to simulate a micro-grid or stand-alone system. Topics covered include: NEC code compliance, battery safety and energy management.

Pre-requisites:

Positive Attitude

Required Classroom Materials:

Calculator

Notebook

Pencils

Date(s):	March 8th 2025 – March 22nd 2025
Day(s):	Saturdays
Time(s):	8:00am – 3:00pm
Approximate Classroom Time:	24 Hours
Class Size Min/Max:	8/8
Course Code:	9A

Course Description and Times

Course Title / Code

Fire Alarm / 10A

Course Description

The newly installed Fire Alarm Lab at your JATC offers practical **hands-on** experience with popular brand name equipment like ***Silent Knight*** and ***Fire Lite***. In addition to working with new control panels, each station has new Flow and Tamper equipment, horn-strobe assemblies, pull stations, smoke detectors, heat detectors, and much more. In fact, this summer we are adding Voice Evacuation and Fire Phone Panels. Each student will install wire, terminate devices and program their own system. Designed to take the mystery out of a fire alarm system. Countless hours were devoted to this new lab and we hope our members take advantage of the hands-on class.

Pre-requisites

Positive Attitude

Required Classroom Materials:

None

Date(s):	October 5th 2024 – November 9th 2024
Day(s):	Saturdays
Time(s):	8:00am – 3:00pm
Approximate Classroom Time:	36 Hours
Class Size Min/Max:	Max 8
Course Code:	10A

Course Description and Times

Course Title / Code

First Aid / CPR / Defibrillation / 11A & B

Course Description

The time spent in this class will definitely offset the helpless feeling incurred when a family member, friend or co-worker is in need. This is a Coyne First Aid / CPR class. Completion cards will be issued for use at jobsites and employers that may require it. This course is for adult CPR only, not for children.

Pre-requisites:

Positive Attitude

Required Classroom Materials:

Notebook

Pencils

Date(s):	December 3rd 2024 – December 12th 2024
Day(s):	Tuesday - Thursday
Time(s):	6:00pm – 9:00pm
Approximate Classroom Time:	12 Hours
Class Size Min/Max:	Max 10
Course Code:	11A

Date(s):	May 17th 2025 – May 24th 2025
Day(s):	Saturday
Time(s):	8:00am – 3:00pm
Approximate Classroom Time:	12 Hours
Class Size Min/Max:	Max 10
Course Code:	11B

Course Description and Times

Course Title / Code

Fusion Splicing I / 12A-12B

Course Description

This course features advanced hands-on fiber optic splicing procedures and techniques. Fusion splicing is the act of joining two optical fibers end to end using heat and is accomplished with a Fusion Splicing Machine. The object of this course is to address fusion splicing specialization and familiarize the student with fiber optic preparation and management, stripping, cleaning, and cleaving techniques.

Prerequisites:

Positive Attitude

Required Classroom Materials:

Notebook

Pencils

Date(s):	October 5th 2024 – October 19th 2024
Day(s):	Saturdays
Time(s):	8:00am – 3:00pm
Approximate Classroom Time:	24 Hours
Class Size Min/Max:	Max 10
Course Code:	12A

Date(s):	March 1st 2025 – March 15th 2025
Day(s):	Saturdays
Time(s):	8:00am – 3:00pm
Approximate Classroom Time:	24 Hours
Class Size Min/Max:	Max 10
Course Code:	12B

Course Description and Times

Course Title / Code

Fusion Splicing II / 13A

Course Description

This course continues the Fusion Splicing I techniques, to include breakout and prep of higher strand count fiber cables. It also introduces fiber splice tray organization, and OTDR testing. Finally, multiple types of fiber optic connectorization techniques commonly used in industry will be discussed and demonstrated. A prerequisite to this course is Fusion Splicing I.

Prerequisites:

Positive Attitude

Required Classroom Materials:

Notebook

Pencils

Date(s):	November 2nd 2024 – November 9th 2024
Day(s):	Saturdays
Time(s):	8:00am – 3:00pm
Approximate Classroom Time:	16 Hours
Class Size Min/Max:	Max 10
Course Code:	13A

Course Description and Times

Course Title / Code

Grounding and Bonding / 14A-14B

Course Description

This is a new course offering that will address any of your concerns with Grounding and Bonding. The course is intended to simplify the rules of grounding and bonding. Concentration is upon application of Article 250 of the National Electrical Code 2023.

Prerequisites:

Positive Attitude

Required Classroom Materials:

2023 NEC

Notebook

Pencils

Highlighters

Date(s):	April 5th 2025
Day(s):	Saturdays
Time(s):	8:00am – 3:00pm
Approximate Classroom Time:	6 Hours
Class Size Min/Max:	None
Course Code:	14A

Date(s):	April 19th 2025
Day(s):	Saturdays
Time(s):	8:00am – 3:00pm
Approximate Classroom Time:	6 Hours
Class Size Min/Max:	None
Course Code:	14B

Course Description and Times

Course Title / Code

ICRA (Infection Control Risk Assessment) / 15A

Course Description

This is an infection control safety awareness course developed and maintained by UPMC. As of November of 2012, all construction tradesmen working in a UPMC facility must have completed this course. Reserve your spot now for early compliance. Remember, those that have not completed the course are not eligible to work on a UPMC jobsite. If the dates listed below fill to capacity, others will be scheduled as needed.

Pre-requisites:

Positive Attitude

Required Classroom materials:

Pencils

Notebook

Date(s):	October 19th 2024
Day(s):	Saturdays
Time(s):	8:00am – 3:00pm
Approximate Classroom Time:	8 Hours
Class Size Min/Max	Max 15
Course Code	15A

Course Description and Times

Course Title / Code

Instrumentation and Calibration – Part A / 16A & 16B

Course Description

This course is designed to familiarize a potential technician with various electrical and mechanical devices utilized in automated process control systems. These devices measure changes in process variables such as pressure, level, flow and temperature and convert the sensed reading to an electrical input signal to a controller. Upon completion you should be familiar with industry terminology, documentation and calibration procedures, various test instrument and process control instruments.

Upon completion of the course you may be eligible to take the EPRI (Electrical Power Research Institute) Part A qualification exam.

Please be aware that this course requires a major commitment from you. There is 70 hours of classroom work scheduled with additional study/review time and homework.

Pre-requisites:

DC Theory (Course Code 6A)

AC Theory (Course Code 1A)

Basic Computer Skills

Positive Attitude

Required Classroom Materials:

Notebook

Pencils

Highlighters

Calculator

Date(s)	October 12th 2024 – December 21st 2024
Day(s)	Saturdays
Time(s)	8:00am – 3:00pm
Approximate Classroom Time:	70 Hours
Class Size Min/Max:	Max 10
Course Code:	16A

Date(s):	February 8th 2025 – April 19th 2025
Day(s)	Saturdays
Time(s)	8:00am – 3:00pm
Approximate Classroom Time:	70 Hours
Class Size Min/Max	Max 10
Course Code	16B

Course Description and Times

Course Title / Code

Instrumentation and Calibration – Part B / 17A & 17B

Course Description

After successfully completing the Instrumentation and Calibration – Part A course (Course Code 16A & 16B) and passing the EPRI Part A exam, you will be eligible to take the EPRI Part B exam. This class is designed to prepare you for that test by covering fundamental calibration procedures utilizing various test instruments as well as virtual testing labs.

This course requires a major commitment from you. The scheduled classroom time is 40 hours with additional study/review time and homework. Please be aware that your EPRI Part A certificate expires after three years without your Part B certificate. Additionally, the Part B certificate expires every three years. Members who need to re-certify before your three year certificate expires should seriously consider taking this course prior to your re-testing.

Pre-requisites:

Instrumentation and Calibration Part A (Course Code 16A & 16B)

Successful Completion of EPRI Part A Exam

Basic Computer Skills

Positive Attitude

Required Classroom Materials:

Notebook

Pencils

Highlighters

Calculator

Date(s)	October 12th 2024 – December 7th 2024
Day(s)	Saturdays
Time(s)	8:00am – 3:00pm
Approximate Classroom Time:	40 Hours
Class Size Min/Max	Max 10
Course Code:	17A

Date(s):	March 8th 2025 – April 19th 2025
Day(s)	Saturdays
Time(s)	8:00am – 3:00pm
Approximate Classroom Time:	40 Hours
Class Size Min/Max:	Max 10
Course Code:	17B

Course Description and Times

Course Title / Code

Motor Controls / 18A

Course Description

This course provides a foundation for motor control theory. Participants will develop ladder diagrams demonstrating common motor control functions such as; hand-off-auto controls, forward and reversing controls and timing circuits. The participant will also have the opportunity to demonstrate their hands on skills in our newly updated motor control lab. Classes are sized so that everyone has their own project bucket and remote motor station.

Pre-requisites:

DC Theory (Course Code 6A)

AC Theory (Course Code 1A)

Positive Attitude

Required Classroom Materials:

Notebook

Pencils

Calculator

Hand Tools

Safety Glasses

Gloves

Date(s):	January 4th 2025 – February 22nd 2025
Day(s)	Saturdays
Time(s)	8:00am – 3:00pm
Approximate Classroom Time:	48 Hours
Class Size Min/Max	Max 12
Course Code	18A

Course Description and Times

Course Title / Code

Orientation / 19A

Course Description

This session was just added this year with the hope of preparing the participant for their upcoming classes. Some of the classes require books to be distributed; some others are computer driven and may require registration, Log-on help and more. If a recently organized individual is only attending their first classes, a tour of the facility can be arraigned. Overall, this session will introduce you to the Training Alliance, educate you on the mission and goals of the Training Alliance and prepare you for the rigors of continuing education and the upgrade process.

Pre-requisites:

Positive Attitude

Required Classroom Materials:

Notebook

Pencils

Date(s):	September 21st 2024
Day(s)	Saturdays
Time(s)	8:00am – 3:00pm
Approximate Classroom Time:	6 Hours
Class Size Min/Max	None
Course Code	19A

Course Description and Times

Course Title / Code

OSHA 10 Hour Awareness Course / 20A & B

Course Description

This course deals with the most important part of our industry, your safety. This is a 10-hour course that will be kept as industry specific as possible. Topics may include; Electrical Safety, Ladders, Stairways, Personal Protective Equipment, Lockout Tag-Out and Fall Protection. ***Many jobsites, contractors and customers are now requiring at least an OSHA-10 hour completion card issued within the past 3 years. Please consider this class for upgrade purposes. More classes will be added as necessary.***

Pre-requisites:

Positive Attitude

Required Classroom Materials:

Notebook

Pencils

Highlighters

Date(s):	April 29th 2025 – May 8th 2025
Day(s):	Tuesday - Thursday
Time(s):	6:00pm – 9:00pm
Approximate Classroom Time:	10 Hours
Class Size Min/Max:	5/40
Course Code:	20A

Date(s):	November 9th 2024 – November 16th 2024
Day(s):	Saturdays
Time(s):	8:00am – 3:00pm
Approximate Classroom Time:	10 Hours
Class Size Min/Max:	5/40
Course Code:	20B

Course Description and Times

Course Title / Code

OSHA 30 Hour Awareness Course / 21A

Course Description

This course requires 30 hours of training. It is a more comprehensive course for all members, especially those that may be Safety Directors, Project Managers, or Forman who may need advanced training required by some projects.

Pre-requisites:

Positive Attitude

Required Classroom Materials:

Notebook

Pencils

Highlighters

Date(s):	December 7th 2024 – January 11th 2025
Day(s):	Saturdays
Time(s):	8:00am – 3:00pm
Approximate Classroom Time:	30 Hours
Class Size Min/Max:	5/40
Course Code:	21A

Course Description and Times

Course Title / Code

Programmable Logic Control (PLC) / 22A

Course Description

Your JATC has completed a new Programmable Logic Control (PLC) lab experience that will challenge its participants to learn about the advantages and applications of the PLC. This will include the installation, wiring and basics of programming the Allen Bradley Logix line of PLC utilizing the Studio 5000 programming software.

Pre-requisites

Positive Attitude

Required Classroom Materials:

Notebook

Pencils

Highlighters

Calculator

Date(s):	January 11th 2025 – January 18th 2025
Day(s):	Saturdays
Time(s):	8:00am – 3:00pm
Approximate Classroom Time:	12 Hours
Class Size Min/Max:	8/10
Course Code:	22A

Course Description and Times

Course Title / Code

Tele-Data Basics / 23A

Course Description

The JATC is once again offering a short, hands on course geared towards the Residential Wireman upgrading to the Journeyman Wireman classification. During this course, you will learn the skills necessary to terminate Co-Axial, Fiber Optic, and Twisted Pair cabling with a minimal amount of theory behind the processes. While this is geared towards the RW to JW classification change, all members are invited and encouraged to take this course.

Prerequisites:

Positive Attitude

Required Classroom Materials:

Notebook

Pencils

Date(s):	December 14th 2024 – December 21st 2024
Day(s):	Saturdays
Time(s):	8:00am – 3:00pm
Approximate Classroom Time:	24 Hours
Class Size Min/Max:	8/10
Course Code:	23A

Course Description and Times

Course Title / Code

Transformers / 24A

Course Description

This program will use a transformer trainer to review your knowledge of the Delta and Wye connections, step-up vs. step-down, single winding and dual winding high/low configurations. Once the review is completed we will move to a more realistic dry type transformer and practice landing the primary and secondary sides while discussing neutral connections and proper grounding. If you have every experienced any confusion about transformers this class was designed for you.

Pre-requisites:

AC Theory (Course Code 1A)

Positive Attitude

Required Classroom Materials:

Notebook

Pencils

Highlighters

Calculator

Date(s):	March 1st 2025 – March 8th 2025
Day(s):	Saturdays
Time(s):	8:00am – 3:00pm
Approximate Classroom Time:	12 Hours
Class Size Min/Max:	8/10
Course Code:	24A

For Our Members Attending the Clearfield Facility

Please feel free to select from the following courses that will be offered at the Clearfield site. When enough interest is expressed, the members will be contacted and a start date will be decided on. When filling out you registration form, simply note the course code and title on the form.

Course Description and Times

Course Title / Code

Basic Tele-Data (Hands-on) / C1

Course Description

The JATC is now offering a short, hands-on course geared towards the Residential Wireman upgrading to the Journeyman Wireman classification. During this course, you will learn the skills necessary to terminate Co-Axial, Fiber Optic, and Twisted Pair cabling with a minimal amount of theory behind the processes.

Pre-requisites:

Positive Attitude

Required Classroom Materials:

Notebook

Pencils

Date(s)	Will Be Held When Class Is Filled
Day(s)	TBD
Time(s)	TBD
Approximate Classroom Time	32 Hours
Class Size Min/Max	8/10
Course Code	C1

Course Description and Times

Course Title / Code

Blueprint Reading / C2

Course Description

This is an extensive blueprint reading course covering Basic Blueprint Reading Skills, Residential, Commercial and Industrial Blueprint Reading. The Commercial Blueprint Reading segment actually uses parts of the blueprint set from our own three building IBEW Local Union #5 campus.

Pre-requisites

Basic Computer Skills

Positive Attitude

Required Classroom Materials:

Calculator

Notebook

Highlighters

Pencils

Straight Edge (Ruler)

Date(s):	Will Be Held When Class Is Filled
Day(s):	TBD
Time(s):	TBD
Approximate Classroom Time:	36 Hours
Class Size Min/Max:	8/15
Course Code:	C2

Course Description and Times

Course Title / Code

Conduit Bending / C3

Course Description

This is a hands-on course that uses all of the latest conduit tools. This could be an excellent review for journeyman as well as a great class for our recently organized members who have not been exposed to as conduit work.

Pre-requisites:

Positive Attitude

Required Classroom Materials:

Notebook

Pencils

Hand Tools

Safety Glasses

Gloves

Date(s):	Will Be Held When Class Is Filled
Day(s):	TBD
Time(s):	TBD
Approximate Classroom Time:	36 Hours
Class Size Min/Max	8/10
Course Code	C3

Course Description and Times

Course Title / Code

70E Electrical Safety Related Work Practices / C4

Course Description

There are several different factors that must be considered when discussing electrical safety. This course will try to address issues that are often overlooked that could potentially be fatal if not dealt with properly. The goals we would like to achieve in this course include the following:

- Increased awareness by identifying electrical hazards.
- Achieve a better understanding of the NFPA 70E publication.
- Realize all of the protective equipment available to us, as well as understanding the proper use of protective equipment.
- Learn how to develop an electrically safe work condition.

Pre-requisites:

Basic Computer Skills

OSHA 10 Hour is recommended

Positive Attitude

Required Classroom Materials:

Calculator

Notebook

Pencils

Date(s):	Will Be Held When Class Is Filled
Day(s):	TBD
Time(s):	TBD
Approximate Classroom Time:	40 Hours
Class Size Min/Max:	8/15
Course Code:	C4

Course Description and Times

Course Title / Code

Electrical Vehicle Charging Systems (EVCS-17) Based on 2017 NEC / C5

Course Description

The Electric Vehicle Charging Systems course serves as an instructional primer for the Electric Vehicle Infrastructure Training Program (EVITP) Certification Exam. The course provides an introduction of charging products and associated equipment on the market today. Electrical Workers completing this training go to work with the ability to implement best practices in areas such as charging station equipment, infrastructure site assessment, load calculation, installation, commissioning, and troubleshooting. Through an agreement with EVITP, their certification exam is provided at the conclusion of this course. ***This course will be when the class filled and as needed! Please call and reserve your seat now! The past year saw tremendous interest and the class was conduct several times.***

Pre-requisites:

Basic Computer Skills

Positive Attitude

Required Classroom Materials:

Calculator

Notebook

Pencils

Date(s):	Will Be Held When Class Is Filled
Day(s):	TBD
Time(s):	TBD
Approximate Classroom Time:	18 Hours
Class Size Min/Max:	8/12
Course Code:	C5

Course Description and Times

Course Title / Code

Fire Alarm / C6

Course Description

The newly installed Fire Alarm Lab at your JATC offers practical **hands-on** experience with popular brand name equipment like ***Silent Knight*** and ***Fire Lite***. In addition to working with new control panels, each station has new Flow and Tamper equipment, horn-strobe assemblies, pull stations, smoke detectors, heat detectors, and much more. Each student will install wire, terminate devices and program their own system. Designed to take the mystery out of a fire alarm system. Countless hours were devoted to this new lab and we hope our members take advantage of the hands-on class.

Pre-requisites

Positive Attitude

Required Classroom Materials:

None

Date(s):	Will Be Held When Class Is Filled
Day(s):	TBD
Time(s):	TBD
Approximate Classroom Time:	36 Hours
Class Size Min/Max:	8/8
Course Code:	C6

Course Description and Times

Course Title / Code

First Aid / CPR / Defibrillation / C7

Course Description

The time spent in this class will definitely offset the helpless feeling incurred when a family member, friend or co-worker is in need. This is a Coyne First Aid / CPR class. Completion cards will be issued for use at jobsites and employers that may require it. This course is for adult CPR only, not for children.

Pre-requisites:

Positive Attitude

Required Classroom Materials:

Notebook

Pencils

Date(s):	Will Be Held When Class Is Filled
Day(s):	TBD
Time(s):	TBD
Approximate Classroom Time:	10 Hours
Class Size Min/Max:	8/10
Course Code:	C7

Course Description and Times

Course Title / Code

Fusion Splicing / C8

Course Description

This course features advanced hands-on fiber optic splicing procedures and techniques. Fusion splicing is the act of joining two optical fibers end to end using heat and is accomplished with a Fusion Splicing Machine. This course will address the following: Fiber optic preparation including breakout of high strand count cables, management, stripping, cleaning, and cleaving techniques, tray organization, and OTDR testing.

Pre-requisites:

Positive Attitude

Required Classroom materials:

Pencils

Notebook

Date(s):	Will Be Held When Class Is Filled
Day(s):	TBD
Time(s):	TBD
Approximate Classroom Time:	8 Hours
Class Size Min/Max	8/15
Course Code	C8

Course Description and Times

Course Title / Code

ICRA (Infection Control Risk Assessment) / C9

Course Description

This is an infection control safety awareness course developed and maintained by UPMC. As of November of 2012, all construction tradesmen working in a UPMC facility must have completed this course. Reserve your spot now for early compliance. Remember, those that have not completed the course are not eligible to work on a UPMC jobsite.

Pre-requisites:

Positive Attitude

Required Classroom materials:

Pencils

Notebook

Date(s):	Will Be Held When Class Is Filled
Day(s):	TBD
Time(s):	TBD
Approximate Classroom Time:	8 Hours
Class Size Min/Max	8/15
Course Code	C9

Course Description and Times

Course Title / Code

Motor Controls / C10

Course Description

This course provides a foundation for motor control theory. Participants will develop ladder diagrams demonstrating common motor control functions such as; hand-off-auto controls, forward and reversing controls and timing circuits. The participant will also have the opportunity to demonstrate their hands on skills in our newly updated motor control lab.

Pre-requisites:

DC Theory

AC Theory

Positive Attitude

Required Classroom Materials:

Notebook

Pencils

Calculator

Hand Tools

Safety Glasses

Gloves

Date(s):	October 14th 2024 – November 20th 2024
Day(s)	Monday - Wednesday
Time(s)	3:00pm – 6:00pm
Approximate Classroom Time:	48 Hours
Class Size Min/Max	8/12
Course Code	C10

Course Description and Times

Course Title / Code

Orientation / C11

Course Description

This session was just added this year with the hope of preparing the participant for their upcoming classes. Some of the classes require books to be distributed; some others are computer driven and may require registration, Log-on help and more. If a recently organized individual is only attending their first classes, a tour of the facility can be arraigned. Overall, this session will introduce you to the Training Alliance, educate you on the mission and goals of the Training Alliance and prepare you for the rigors of continuing education and the upgrade process.

Pre-requisites:

Positive Attitude

Required Classroom Materials

Notebook

Pencils

Date(s):	September 21st 2024
Day(s)	Saturdays
Time(s)	8:00am – 3:00pm
Approximate Classroom Time:	6 Hours
Class Size Min/Max	None
Course Code	C11

Course Description and Times

Course Title / Code

OSHA 10 Hour Awareness Course / C12

Course Description

This course deals with the most important part of our industry, your safety. This is a 10-hour course that will be kept as industry specific as possible. Topics may include; Electrical Safety, Ladders, Stairways, Personal Protective Equipment, Lockout Tag-Out and Fall Protection. ***Many jobsites, contractors and customers are now requiring at least an OSHA-10 hour completion card issued within the past 3 years. Please consider this class for upgrade purposes. More classes will be added as necessary.***

Pre-requisites:

Positive Attitude

Required Classroom Materials:

Notebook

Pencils

Highlighters

Date(s):	Will Be Held When Class Is Filled
Day(s):	TBD
Time(s):	TBD
Approximate Classroom Time:	10 Hours
Class Size Min/Max:	8/25
Course Code:	C12

Course Description and Times

Course Title / Code

OSHA 30 Hour Awareness Course / C13

Course Description

This course requires 30 hours of training. It is a more comprehensive course for all members, especially those that may be Safety Directors, Project Managers, or Forman who may need advanced training required by some projects.

Pre-requisites:

Positive Attitude

Required Classroom Materials:

Notebook

Pencils

Highlighters

Date(s):	Will Be Held When Class Is Filled
Day(s):	TBD
Time(s):	TBD
Approximate Classroom Time:	30 Hours
Class Size Min/Max:	8/25
Course Code:	C13

Registration Form

Please Print Neatly

_____ _____ _____ _____

(Last Name) (First Name) (MI) (Classification)

_____ _____ _____ _____

(Street Name) (State) (City) (Zip)

_____ _____ _____ _____

(Card Number) (S.S. Number) (Daytime Ph. #) (Evening Ph. #)

_____ _____

(E-mail Address) (Local Union #)

	Course Code	Course Title	Day	Times
1				
2				
3				
4				

Carefully Review this checklist before completing this form.

1. **Make sure that the phone numbers you supply are correct.**
2. **In the event that you move please notify the apprenticeship as soon as possible with address and phone number changes.**
3. **Please make sure that you can attend the class that you sign up for. Review the calendars and make sure that the dates that you select do not conflict with other important dates.**
4. **Please make sure that the classes you select do not conflict with each other.**
5. **Please pay attention to the necessary pre-requisites and try not to register for classes out of order.**
6. **Leave some time between classes. Remember that the listed times required are approximate and may be slightly longer or shorter.**