INTRODUCTION

Welcome to the 38th Annual Ironworker Instructors Training Program. This program is designed to provide comprehensive training for ironworkers and professionals in the ironwork industry. The catalog includes a variety of courses and workshops that cover essential skills, safety, and the latest industry practices. Whether you are a current ironworker looking to enhance your expertise or a professional seeking to break into the ironwork industry, this program offers valuable learning opportunities.

COURSE DESCRIPTIONS

This section of the catalog provides detailed descriptions of each course offered during the program. Each course is designed to meet the specific needs of ironworkers and those interested in the ironwork field. The descriptions include course objectives, prerequisites, and expected outcomes. Additionally, we provide information on the instructors, course schedules, and available resources.

INSTRUCTOR BIOGRAPHIES

Get to know the experts who will be teaching these courses. Each instructor brings a wealth of experience and knowledge to the program. Their biographies highlight their qualifications, professional achievements, and contributions to the ironwork industry.

SCHEDULE

The schedule outlines the dates and times for each course throughout the program. It includes the location of each session and any special arrangements that may be necessary. This information is crucial for planning your attendance and ensuring you can participate in all the courses you wish to take.

APPLICATION PROCESS

To enroll in the program, you must complete the registration process. We provide a step-by-step guide on how to register, including any fees and deadlines. Additionally, you may be required to submit a resume or other documentation to support your application. This information is available in the application section of the catalog.

CONTACT INFORMATION

For any questions or concerns, you can contact the program coordinators. They are available to provide further details about the courses, registration process, or any other inquiries you may have. Contact information is provided in the catalog for your convenience.
A MESSAGE FROM
GENERAL PRESIDENT ERIC DEAN
AND TSI/EXTERIOR WALL SYSTEMS
BOARD CHAIRMAN VICTOR CORNELLIER

On behalf of the National Training Fund Trustees, we would like to welcome you to the 38th Annual Ironworker Instructor Training Program in Ann Arbor, Michigan. Each year we work to improve and strengthen what is already considered to be the best Instructor Training Program in the industry, and 2022 will be no exception.

The purpose of this annual training program is to strengthen the apprenticeship training and journeyman upgrading programs at every local by improving the knowledge and skills of our instructors, apprenticeship coordinators, business managers and contractors. Each year the National Training Fund and IMPACT work proactively to improve existing courses and develop new courses to ensure that we are ready to meet continuously evolving construction standards, technology and methods. We also offer courses in professional development and soft skills to help develop well rounded industry professionals.

The ironworkers have a reputation as being the best trained and skilled workforce in the construction industry. Our esteemed training program is the very foundation on which that reputation has been built. It is what allows us to develop the best ironworkers and most competitive contractors. The result is providing the owners and the industry with the safest, most productive and efficient ironworkers and contractors available anywhere.

If you have any questions regarding the information in this program catalog, or about the Ironworker Instructor Training Program, contact the National Training Fund office at (202) 383-4889.

Eric Dean
General President &
National Training Fund
Labor Co-Chair

Victor Cornellier
TSI/Exterior Wall Systems &
National Training Fund
Management Co-Chair
Greetings, and welcome to the 38th annual ironworker instructor training conference. I hope all of you have been safe and managed some sort of normalcy the past two years and are ready to get back into the best instructor training conference in the Building Trades. Even with the cancellation of our live event the past two years we’ve managed to conduct virtual instructor training and be successful. Last year we held sixteen online courses and over 220 of you participated. According to instructor and student evaluations the classes were effective with minimal interruption.

As we begin this year’s training session, I want to welcome back those who have attended previous classes at WCC. After speaking with many of you I know you’re ready to get back into the classroom and reacquaint yourself with friends and staff on campus. For those of you who are “first-timers” to Ann Arbor, get ready for an exciting week of training. The instructors who’ll lead you through your courses are individuals you’ll never forget; you’ll also meet new local union coordinators and instructors from across the country whom you’ll develop both professional and personal relationships.

We missed seeing everyone on campus last year, whether it was at mealtime, in class or at one of the many functions throughout the week. I hope you and your families have been safe and you’re ready for our host, Washtenaw Community College, and their wonderful citizens, to welcome us back.

Two familiar faces will not be with us again due to retirement; Russ Gschwind, General Organizer and Training Specialist for the National Training Fund, and Dick Zampa, Apprenticeship Director for the California & Vicinity District Council. Russ first attended the annual conference in 1992 at the University San Diego and Dick in 1986 (the 2nd conference) at the University of California San Diego. I know everyone wishes the best for these two fine gentlemen who gave so much to their respective locals and organization.

In closing, the goal of the National Fund’s annual program is to strengthen the knowledge and skills of our ironworker instructors and apprenticeship coordinators so that we can remain the best trained ironworkers in the industry. Thank you for your dedication to training and have a great week!
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# COURSE DESCRIPTIONS

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NATIONAL TRAINING FUND STAFF

Lee Worley  Ed Abbott  Michael Sampson  Jason Corder  Brian Tannehill

James Owens  Bart Collart  Cinthia Garnica  Christine Vermillion  Courtney Attig

Jenna Beeson  Hannah Brehm

Brian Caskey  Israel Contreras

VISIT THE IRONWORKER STAFF OFFICE AT WASHTENAW COMMUNITY COLLEGE:
The Ironworker Office is in the Morris Lawrence (ML) building in room 130

PHONE: 734.677.5394 or 734.677.5133  FAX: 734.677.5396
CALENDAR OF EVENTS

MONDAY, JULY 11, 2022
8:00 a.m. to 5:00 p.m. Registration and room check-in for Certified Welding Instructor (CWI) course participants as they arrive at University of Michigan (refer to U of M map in this catalog)

TUESDAY, JULY 12, 2022
8:00 a.m. to 5:00 p.m. CWI courses at University of Michigan Trotter Multicultural Center

WEDNESDAY, JULY 13, 2022
8:00 a.m. to 5:00 p.m. CWI courses at University of Michigan Trotter Multicultural Center

THURSDAY, JULY 14, 2022
8:00 a.m. to 5:00 p.m. CWI courses at University of Michigan Trotter Multicultural Center

FRIDAY, JULY 15, 2022
8:00 a.m. to 5:00 p.m. CWI courses at University of Michigan Trotter Multicultural Center

SATURDAY, JULY 16, 2022
9:00 a.m. to 5:00 p.m. Registration and room check-in for all participants at the University of Michigan (see U of M map in this catalog)
8:00 a.m. to 5:00 p.m. CWI courses at University of Michigan Trotter Multicultural Center

SUNDAY, JULY 17, 2022
8:00 a.m. to 4:00 p.m. Registration and room check-in for all participants at the University of Michigan (see U of M map in this catalog)
4:45 p.m. Group Photograph Ann Arbor Marriott Ypsilanti at Eagle Crest (1275 S Huron St, Ypsilanti, MI (734) 487-2000). Busses depart U of M at 4:00 p.m.
5:00 p.m. Opening General Session including dinner at the Ann Arbor Marriott Ypsilanti at Eagle Crest (1275 S Huron St, Ypsilanti, MI (734) 487-2000), required for all participants

MONDAY, JULY 18, 2022
6:30 a.m. to 7:45 a.m. Breakfast served at Washtenaw Community College (see the WCC map in this catalog)
8:00 a.m. to 5:00 p.m. CWI courses at University of Michigan Trotter Multicultural Center
8:00 a.m. to 5:00 p.m. Courses begin at Washtenaw Community College

TUESDAY, JULY 19, 2022
6:30 a.m. to 7:45 a.m. Breakfast served at Washtenaw Community College
8:00 a.m. to 5:00 p.m. CWI courses at University of Michigan Trotter Multicultural Center
8:00 a.m. to 5:00 p.m. Courses continue at Washtenaw Community College
5:00 p.m. Klein Tool BBQ at Washtenaw Community College in the Morris Lawrence Building
## CALENDAR OF EVENTS

### WEDNESDAY, JULY 20, 2022

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>6:30 a.m. to 7:45 a.m.</td>
<td>Breakfast served at Washtenaw Community College</td>
</tr>
<tr>
<td>8:00 a.m. to 5:00 p.m.</td>
<td>CWI courses at University of Michigan Trotter Multicultural Center</td>
</tr>
<tr>
<td>8:00 a.m. to 5:00 p.m.</td>
<td>Courses continue at Washtenaw Community College</td>
</tr>
<tr>
<td>5:00 p.m.</td>
<td>Vendor Demonstrations and dinner in the Pavilion at Washtenaw Community College</td>
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### THURSDAY, JULY 21, 2022

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>6:30 a.m. to 7:45 a.m.</td>
<td>Breakfast served at Washtenaw Community College</td>
</tr>
<tr>
<td>8:00 a.m. to 5:00 p.m.</td>
<td>CWI courses at University of Michigan Trotter Multicultural Center</td>
</tr>
<tr>
<td>8:00 a.m. to 5:00 p.m.</td>
<td>Courses continue at Washtenaw Community College</td>
</tr>
<tr>
<td>5:00 p.m.</td>
<td>Awards Session and dinner at Washtenaw Community College in the Morris Lawrence Building</td>
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### FRIDAY, JULY 22, 2022

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>6:30 a.m. to 7:45 a.m.</td>
<td>Breakfast served at Washtenaw Community College</td>
</tr>
<tr>
<td>7:00 a.m. to 5:00 p.m.</td>
<td>CWI examinations University of Michigan Trotter Multicultural Center</td>
</tr>
<tr>
<td>8:00 a.m. to 5:00 p.m.</td>
<td>Courses continue at Washtenaw Community College</td>
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</tbody>
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### SATURDAY, JULY 23, 2022

- Participants depart for home (more information on bus transportation from the University of Michigan to the airport to be provided)

**NOTE:** Driving directions and maps for all campuses are available on our website and all program participants should have copies before beginning travel. Go to [www.ironworkers.org](http://www.ironworkers.org) and go to the Training link.

**NOTE:** Each course meets daily and participants must attend all course sessions to receive credit for courses and to receive a completion certificate. All participants must attend courses until 5:00 PM on Friday.

**DO NOT SCHEDULE A FLIGHT EARLIER THAN 7:30 PM!**

**SATURDAY, JULY 16, 2022:** 9:00 a.m. to 5:00 p.m.

**SUNDAY, JULY 17, 2022:** 8:00 a.m. to 4:00 p.m.

**PLACE:** University of Michigan—North Quad
PROGRAM INFORMATION

This section of the program catalog contains information about the annual training program conducted by the National Ironworkers and Employers Apprenticeship Training and Journeyman Upgrading Fund (NIEATJUF), the mission of the Apprenticeship and Training Department, the five-year certification program, and the annual program attendance policy.

ANNUAL IRONWORKER INSTRUCTOR TRAINING PROGRAM

The goal of the National Training Fund’s annual Ironworker Instructors Training Program is to strengthen the knowledge and skills of our Ironworker Instructors, Apprenticeship Coordinators and Directors, Business Managers, Employers and Owners. First conducted in 1985, the annual program offers a variety of technical, professional and computer courses to meet the needs of our members.

Each year there are well over 40 courses taught by about 60 instructors. Our instructors include outstanding professionals from local unions, colleges, universities, employers, and equipment manufacturers.

ATTENDANCE POLICY

The Trustees of the National Training Fund recognize the importance of the annual training program and therefore take attendance very seriously. The policy is that participants must attend all course sessions to receive credit for courses and to receive a completion certificate.

MISSION OF THE APPRENTICESHIP AND TRAINING DEPARTMENT

The mission of the Apprenticeship and Training Department is to ensure that our contractors and employers have union Ironworkers with the skills, knowledge, and training necessary to be safe on the job site, competitive in the workplace, and satisfied in their careers.

We accomplish this mission by providing training and training materials, leadership, accreditation, and certification in order to uphold union values and the principles of service and professionalism.

We stand for:

❯ Unionism
❯ Safety
❯ Leadership
❯ Service
❯ Integrity
❯ Professionalism

QUALIFIED INSTRUCTOR CERTIFICATE PROGRAM

Each year the National Training Fund conducts instructor training activities. The majority of these activities are carried out during the annual instructor training program. In addition, some train-the-trainer courses are offered at one or more of the three Regional Training Centers. The primary goal of these courses is to develop qualified instructors capable of implementing effective Ironworker apprenticeship training and journeyman upgrading programs.

In an effort to recognize trained instructors, the National Training Fund implemented a Qualified Ironworker Instructor Certificate program. The objective of this program is to recognize those Ironworker instructors who have completed specific professional and technical courses as part of the annual Instructor Training program.

The Ironworkers have a strong education and training system throughout the
United States and Canada. The output of this system is a highly trained Ironworker able to meet the needs of our contractors and employers. This instructor certificate program complements the Ironworker Apprenticeship Certification Program (IACP) in that both will help strengthen the quality of our apprenticeship programs.

An effective Ironworker instructor is one who has up-to-date technical knowledge and skills and who is able to competently conduct classroom and hands-on or shop training sessions. This certificate program recognizes this combination of technical expertise and professional training skills by requiring that the instructor complete a series of courses in each of these areas.

>>> THE STEPS IN THE APPLICATION PROCESS INCLUDE:

1. Review the Ironworker Qualified Instructor Certificate Program Guidelines
2. Print a transcript of your courses from the IWATS.
3. Complete the certificate application.
4. Submit your application and transcript to the Apprenticeship and Training Department.

Upon receipt, review and approval of the application, the instructor will receive a notification that the certificate will be given at the next instructor training program or the certificate may be mailed to the local union for presentation to the instructor. The certificate will include the instructor’s name and will indicate completion of the necessary courses to be considered a Qualified Ironworker Instructor. The certificate will be signed by the General President and will be suitable for framing.

2019 QUALIFIED INSTRUCTORS GROUP PHOTO
ARCHITECTURAL AND ORNAMENTAL

Architectural Wall Systems and Glass Railings (ORN 8)

This 20-hour course will focus on units 1–7 of the Architectural and Ornamental Manual covering the installation of different types of curtain wall, window wall, storefronts, entrance ways and glass railing. In addition, storage, safe handling, and installation of glass will be taught. Work clothes and PPE are required.

INSTRUCTORS: Peter Marcyan, Joseph Rooney

Architectural and Industrial Doors, Door Systems and Entranceways (ORN 9A)

This 20-hour course will focus on units 8–13 of the Architectural and Ornamental Manual covering the installation of different types of doors, door closers, and hardware. Participants will install swing doors and a revolving door. A portion of this course will be hands on, so work clothes and PPE are required.

INSTRUCTORS: Peter Marcyan, Joseph Rooney

Insulated Metal Panel and Rainscreen Training (ORN 10)

This 20-hour class will begin with an introduction to the tools needed to erect a typical Insulated Metal Panel (IMP) wall system. That will be followed by discussing sub-framing requirements, basic panel design attributes, installation video, basic installation document usage, and cleaning and maintenance of installed panels. This portion will conclude with the installation of architectural panels in a full-scale mock-up. We will then discuss the differences between architectural panels vs industrial panels. That will be followed by a demonstration of erecting industrial panels. We will conclude by discussing Rain Screen systems and the various components of the rain screen system. That also will be followed by the installation of a hands-on mock-up for a rain screen system using IMP and exterior rain screen components. Work clothes and PPE are required.

INSTRUCTORS: Eric Lytle, Mike Mansfield

APPRENTICESHIP MANAGEMENT AND LOCAL UNION

New Apprenticeship Coordinator Course (AC 2)

This 20-hour course is designed to help new or first year Apprenticeship Coordinators and Directors manage an apprenticeship program. Topics covered in this course include administering the program, managing the training facility, maintaining finances, meeting fiduciary responsibilities, managing apprenticeship instructors, protecting instructor liability, providing for effective on-the-job learning, and preparing for the Ironworker Apprenticeship Certification Program (IACP). Participants will receive a copy of Ironworker Apprenticeship and Training Programs: A Guide for Coordinators and Directors. It is strongly recommended that new Coordinators/Directors also enroll in the Apprenticeship Tracking System (ATS) course concurrently with this course.

INSTRUCTORS: Reis James, Chris Tobiasson, James Owens
Experienced Apprenticeship Coordinator Course (AC 3)
This 10-hour discussion-based course is designed for experienced Apprenticeship Coordinators and Directors. Participants will engage in group discussions using case studies developed by experienced Coordinators and Directors as well as National Training Fund staff. In addition, this course encourages Coordinators or Directors to share problems, issues, and/or situations with which they need assistance. Each participant will receive a copy of the Ironworker Apprenticeship and Training Programs: A Guide for Coordinators and Directors to be used as a resource during the course.

INSTRUCTORS: Reis James, Chris Tobiasson, James Owens

Advanced Business Manager Training Course (BMT 1)
This 40-hour course is designed to further prepare Ironworker Business Managers to effectively carry out their job duties and responsibilities. Topics include conducting effective union meetings, managing local union finances, managing public perceptions of the Ironworkers, using the online local union membership system, maintaining communications with members, speaking effectively in public, being familiar with the process of estimating and bidding contracts, managing a crisis, and handling grievances and jurisdictional disputes. Participation in this course is by invitation only.

INSTRUCTOR: Kevin Byrnes

Grant Funding Fundamentals (GFC 1)
This 10-hour course is designed to provide the Ironworker student with the understanding and ability to identify and utilize grant funding opportunities that are available to their programs, members, and apprentice. They will also learn about the importance of grant funding as a valuable option in administering high-quality instruction and intake, expanding the use of technology and equipment, as well as supportive services for new apprentice. Course content will consist of classroom lectures, PowerPoint presentations, peer discussion, website navigation, knowledge assignments, and test.

Prerequisites: It is preferred the student be experienced in community outreach, apprenticeship operations, and understanding trust policies. All students are required to have a laptop or tablet with keyboard.

INSTRUCTOR: James Owens

Administering the IW Welding Certification Program & Accredited Test Facility (WCP 4)
This 10-hour course taught by AWS/IW Assessors is designed to help new and experienced Coordinators and/or Facility Representatives manage their Welding Certification Program (WCP) and maintain their Accredited Testing Facility (ATF). During the course participants will review the Quality Assurance Manual to outline the responsibilities of the Coordinator, Facility Representative, Quality Assurance Manager, Instructors, and Test Supervisor. AWS codebooks will be referenced for qualification tests, maintenance of files, equipment, and facility requirements. Safety requirements, educational discounts, yearly and 3-year Audits, as well as the WCP Program web site will be discussed.

INSTRUCTORS: Jason Rafter
COMPUTER TECHNOLOGY

Computer Applications I (CTC 2)
Upon completion of this 20-hour course, the participant will be able to use Microsoft Word and PowerPoint. The primary purpose of this course is to develop a level of comfort in creating and formatting documents (e.g., letters, handouts, PowerPoint presentations, and tests), adding graphics, how to capture and use content from the Internet, and more. The entire week will be filled with tips and tricks to make tasks easier. The participant will develop realistic course materials and present their solutions at the end of the week. Prerequisite for this course is Introduction to Computers, or have computer experience that would qualify him or her for this course. Participants who have previously enrolled in this course, but have limited use of the software are strongly encouraged to enroll. Classroom instruction will be delivered primarily through PowerPoint presentations and hands-on practice. Participants will receive a copy of the units of instruction and the PowerPoint presentation files. This course will NOT include Microsoft Access or Excel.

INSTRUCTORS: Linda Lancaster Meeks, Roman Meeks

Computer Applications II – Software Integration (CTC 3)
This 20-hour course is designed for the participant who has completed the Computer Applications I course or has extensive experience with Microsoft Office. Upon completion of this course, the participant will be able to use Excel and Outlook. Instruction on advanced formatting within Microsoft Word and PowerPoint will also be covered. Topics include: the fundamentals of creating spreadsheets (e.g., mailing lists, inventory records, and grading systems), integrating blueprints and photo images, and how to use Internet content, contact list management, and appointment scheduling. The entire week will be filled with tips and tricks to make tasks easier. The participant will develop relevant training materials and present their solutions at the end of the week. Classroom instruction will be delivered primarily through PowerPoint presentations and hands-on practice. Participants will receive a copy of the units of instruction and the PowerPoint presentation files.

INSTRUCTORS: Linda Lancaster Meeks, Roman Meeks

Apprentice Tracking System (CTC 4)
Now open to Instructors and apprenticeship staff, this course is now required for Qualified Instructor Certification. This 20-hour course provides a hands-on orientation to the Apprentice Tracking System (ATS). Participants will learn how the ATS can help standardize and automate information needed to successfully track training activities for apprentices and journeymen. Participants will learn how to add core apprentice and journeyman membership information, schedule courses, track on-the-job training, wage increases, and certifications. Additional topics on customizing your ATS to fit your training center’s needs as well as how to retrieve recorded membership information including certifications and work histories will be covered.

Prerequisites: Basic computer skills

INSTRUCTORS: Scott Papineau, James Hyden

FUN FACT:
Find great places to eat at the Ann Arbor Convention and Visitors Bureau at www.visitannarbor.org.
**Intermediate Computers** (CTC 7)

This **20-hour** course is designed for participants who have basic knowledge using a computer. Working in Windows 10, participants will learn about common computer terminology, hardware, and software. This course is structured to maximize the student's understanding of computers through a lecture-based and hands-on approach. Topics include: file management, backing up and transferring files using different devices and media, setting up an LCD projector, sending and receiving e-mail, learning about “Cloud” storage using Google Docs to create/edit/share Word, PowerPoint, and Excel Documents, becoming familiar with social networking and how it could help you.

**Prerequisites:** Basic computer skills

**INSTRUCTOR:** Chantée Geigan

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**Ironworkers Learning Management System** (CTC 8)

This **10-hour** course **IS A MUST TAKE** course for all Coordinators and Instructors, it is also open to administrative assistants. You will be introduced to and learn how to use the new Learning Management System (LMS). The LMS will be a very useful tool that will not only improve training, it will also make administration of your program more efficient. Participants will learn how to use the Learning Management System to administer training, track and record assignments, administer and grade tests, and improve record keeping. Topics include: setting up user access in the LMS, building a local curriculum meeting IACP requirements, creating class groups, enroll students or groups into a course, track homework completion and grades, assign grades for performance exercises, proctor unit tests, entering grades, accessing instructor resources on the LMS, posting messages, calendar events, running reports, and more.

**INSTRUCTORS:** Joe Mulready, Bart Collart, Jason Willey

---

**Hosting an Online Classroom** (CTC 9)

This **10-hour** course will provide training in setting up an online classroom for distance learning. Topics covered will be training students to sign on and attend class. Class schedules, rules and regulations for online training must be established to prevent online surprises. Next comes training the instructor to set up online meetings, inviting the students, taking attendance, giving presentations, polling, online exams and LMS use. Finishing off with the participant setting up and giving an online presentation.

**INSTRUCTORS:** Chantée Geigan
IMPACT PROFESSIONAL DEVELOPMENT COURSES

IMPACT will be offering the following courses as part of the annual training program. For more information or to register for these courses, go to: https://bit.ly/IMPACTProfessionalDevelopmentTraining or call the IMPACT office at 800-545-4921.

<table>
<thead>
<tr>
<th>DAYS</th>
<th>ID</th>
<th>COURSE TITLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mon-Fri</td>
<td>CONT16</td>
<td>Fundamentals of Cost Estimating and Bidding for Beginners Structural</td>
</tr>
<tr>
<td>Mon-Fri</td>
<td>000MT5</td>
<td>Advanced Layout and Total Station</td>
</tr>
<tr>
<td>Fri</td>
<td>CONT77</td>
<td>Dale Carnegie’s How to Stop Worrying and Start Living</td>
</tr>
<tr>
<td>Mon-Tue</td>
<td>CONT74</td>
<td>Intelligent Leadership Workshop (2 days)</td>
</tr>
<tr>
<td>Wed-Thu</td>
<td>CONT78</td>
<td>Dale Carnegie’s High Impact Presentation Skills (12 people max)</td>
</tr>
<tr>
<td>Wed-Fri</td>
<td>000SD4</td>
<td>Superintendent Training for Ironworkers Level 2</td>
</tr>
<tr>
<td>Fri</td>
<td>CONT75</td>
<td>Strengths-Based Communication</td>
</tr>
<tr>
<td>Mon-Tue</td>
<td>CONT72</td>
<td>Behavior Habits of Great Leaders</td>
</tr>
<tr>
<td>Mon</td>
<td>CONT63</td>
<td>Computer Basics - 1 day</td>
</tr>
<tr>
<td>Tue</td>
<td>CONT64</td>
<td>MS Outlook Training - 1 day</td>
</tr>
<tr>
<td>Wed</td>
<td>CONT65</td>
<td>MS Word Training - 1 day</td>
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<tr>
<td>Thu</td>
<td>CONT66</td>
<td>MS Excel Training - 1 day</td>
</tr>
<tr>
<td>Fri</td>
<td>CONT76</td>
<td>MS PowerPoint Training - 1 day</td>
</tr>
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MISCELLANEOUS TECHNICAL COURSES

Rigging and Cranes for Ironworkers (MTC 1)
This 20-hour course is designed to provide the participant with an overview of, and how to use the material in our Rigging and Cranes manuals. The Rigging manual includes fiber rope, reeving, wire rope, rigging hardware, slings, chains, tools, devices, and hydraulic gantry systems. The Crane manual includes principles and quadrants of mobile cranes, load charts, capacity factors, pre-lift planning, and tower and kangaroo cranes. There will be detailed study of selected units of instruction from the manuals. Requirements and instructions for issuing qualified rigger and crane signaling certifications will also be explained.

INSTRUCTORS: Jim Creegan, Ernesto Penuelas

Conveyor Installation and Industrial Maintenance (MTC 2)
This 20-hour course will provide the participant with an overview of the installation of, and theory behind various types of conveyor equipment used in the manufacturing sector. It will also cover the theory and practice behind industrial maintenance techniques on various mechanical installations in this sector. Hands-on participation will also be a component of this course. Note: Work clothes will be required for this course.

INSTRUCTORS: Clint Knowlton, Joe Werbeck
Rigger Trainer Development (MTC 4)

This 20-hour "Trainer Development Program" will cover fundamental, intermediate, and advanced rigging concepts, emphasizing proper rigging techniques per ASME (American Society of Mechanical Engineers), OSHA, and manufacturer's recommendations. Classroom instruction will incorporate PowerPoint presentations, a review of the Crosby rigging card and capacity charts, and the opportunity to work in a workshop setting to solve multiple real-world rigging problems. Participants will be instructed on OSHA standards for rigging, ASME B30.9 “Sling” and B30.26 “Rigging Hardware” standards. Some advanced rigging topics and heavy-lift hardware requirements will be discussed, along with the selection and application of blocks and plate clamps. Rigging math will be emphasized. After completion of the course, the participants will leave with the following Crosby training materials: The Crosby Group Catalog, Crosby Fundamentals of Rigging Workbook, and three corresponding rigging cards, as well as PowerPoint presentation and additional material associated with the workbook.

INSTRUCTORS: The Crosby Group—Jason Birdwell, Jim Wojcikiewicz

POST-TENSIONING CERTIFICATION

Unbonded Post-Tensioning Certification Trainer (PT 1)

This 40-hour course will cover the curriculum materials and instructors guide used to train Ironworker apprentices and journeymen on single-strand unbonded (mono-strand) post-tensioning systems. The primary purpose of this course is to prepare and train participants to pass the new Post-Tensioning Ironworker Certification exam for unbonded post-tensioning and to teach this course to apprentices and journeymen. At the conclusion of this course, a representative from the Post-Tensioning Institute (PTI) will administer the certification exam. Those successfully completing this test will receive and will be qualified to teach this certification course at the local level, enabling their apprentices to take the certification exam.

INSTRUCTORS: Robert Bass, Kurt Johnson

Bonded Post Tensioning Certification Trainer (PT 2)

This 20-hour course will build on the fundamentals of post-tensioning taught in PT 1 and instructs the participant in the installation, stressing, and grouting of bonded multi-strand, and bar systems used in bridges, superstructures, and buildings. The course will use the Bonded Post Tensioning Reference Manual, Workbook, and Instructors Guide. The purpose of this course is to prepare participants to pass the PTI’s certification exam for Bonded Post-Tensioning, and prepare them to teach this course and administer the test at their Local. Prerequisites – Participants should have previously completed PT 1, Unbonded Post Tensioning Certification.

INSTRUCTORS: Robert Bass, Kurt Johnson
PROFESSIONAL DEVELOPMENT

Instructional Planning and Delivery  (PDC 1&2)

This 20-hour course serves as the introductory course for the Ironworkers Instructors Training Program. The focus is on instructional planning and delivery for ironworker apprenticeship instructors. The information contained in the reference manual will help the ironworker instructor plan for apprenticeship instruction, prepare and use basic media during instruction, create a positive learning environment, deliver an effective classroom presentation, demonstrate a skill, administer and score knowledge and skill tests, and determine course grades. This course also provides the participant an opportunity to give a short presentation on an assigned topic. Planning must occur prior to delivering presentations and demonstrations to apprentices and journeymen; therefore, the instructional planning content will be presented first. Next up is the use of audiovisuals and creating a positive learning environment. This will be followed by the instructional delivery content. The final unit in this manual focuses on administering tests and determining course grades. Applying the information presented in this course will help to ensure that ironworker training courses and instructors are effective and that those completing courses are able to meet the needs of our employers. (Note: This course is mandatory for first-year participants.)

INSTRUCTORS: Brian Tannehill, Dr. Jon Musgrave, Kim Zimmerman

Testing and Evaluation Strategies  (PDC 3)

This 10-hour course in testing will assist instructors in understanding the importance of assessing the developmental level of apprentices. Within this course, participants will gain hands-on experience in developing and administering knowledge and performance-based tests. Participants will learn to plan for developing tests and then administering tests using true-false, multiple-choice, matching, and completion test items using ExamView software. Participants will also learn to administer and score performance-based tests.

INSTRUCTOR: Mandolen Mull

FUN FACT:
Have you checked out the Ironworker’s website recently? Go to www.ironworkers.org.
Communication Skills and Motivation Techniques (PDC 4)
This 10-hour course is focused on techniques and strategies for motivating adult learners in an instructional setting and developing good communication and listening skills. This course also addresses the issue of classroom discipline and control. Role-playing and simulation activities are included. Classroom instruction will be delivered primarily through PowerPoint presentations.

INSTRUCTOR: Deborah Samuels

Illustrated Presentations and Technical Demonstrations (PDC 6)
This 10-hour advanced course focuses on further developing the teaching skills of experienced instructors. Classroom instruction will be delivered primarily through PowerPoint presentations and teaching demonstrations. Students will prepare and present a technical demonstration as a part of the course. Teaching materials will be provided to the students.

Requirements: Students must first complete PDC 1 & 2 before taking this course. Students must have three or more years of classroom teaching experience before entering the course.

INSTRUCTOR: Dr. Jeff M. Allen

Working with Learners with Special Needs (PDC 7)
This 20-hour course will focus on the challenges created for apprenticeship instructors who work with learners with special needs in classroom and shop environments. Participants will become familiar with categories of special-needs learners and general characteristics (e.g., learning disabled, limited English speaking, substance abuse, emotional problems, and reading/ math difficulties) as well as a menu of helpful instructional strategies. Information on learning styles and teaching styles will also be addressed.

INSTRUCTOR: Dr. Julie Kissel

Facilitation Skills for Ironworker Instructors (PDC 10)
This 20-hour course will focus on facilitation and classroom training skills the participant can use to make classroom sessions more interactive and participatory. In this course, participants will learn how to develop and use small-group activities including case studies, role-plays, and team-building exercises. Participants will also learn how to facilitate brainstorming sessions and how to lead discussions. Participants will have several opportunities to apply their facilitation and training skills during practice sessions.

INSTRUCTOR: Jay Tweet
REINFORCING

Reinforcing Concrete for Your Apprenticeship Program (REF 4)

This 20-hour “train-the-trainer” course uses dynamic teaching techniques to introduce the Reinforcing Concrete for Ironworkers training package available from the National Fund. This course will introduce the reference manual, student workbook, instructors guide, and blueprints that contain the latest information on concrete reinforcing materials, tools, and techniques. It is recommended that this course be taken prior to taking the PT 1 and PT 2 courses.

INSTRUCTORS: Brad Huth, Robert Barker

Reinforcing Drawings and Rigging (REF 6)

This 20-hour course will focus on reading reinforcing drawings as well as specialty rigging applications within the reinforcing industry. Information in the current reinforcing manual will be supplemented, expanded on, and covered in detail. This will better enable instructors to teach these specialized subjects at the local level. It is recommended participants complete the REF4 reinforcing course prior to, or at the same time as they take this course.

INSTRUCTORS: Brad Huth, Robert Barker

FUN FACT:
Washtenaw County Breweries:
Corner Brewery
Wolverine State Brewing Co.
Arbor Brewing Co.
Grizzly Peak
Jolly Pumpkin
Blue Tractor
SPECIAL DEVELOPMENT

History of the Ironworkers Union  (SDC 2)

This 20-hour course will enable the participants to teach the history of the Ironworkers Union as well as discuss major events in American labor history. The evolution of construction technologies and the effect these changes had on our union will also be examined. A copy of “A 110-Year History of the Iron Workers Union” will be provided free-of-charge to each participant. Classroom instruction will also include video and PowerPoint presentations.

INSTRUCTORS: Michael Richards, Todd Foreman

Layout Instruments for Ironworkers Trainer  (SDC 3)

This 20 hour trainer course will provide the skills needed to teach the use layout equipment during the erection of all facets of the Ironworking trade. (E.g. structural steel, precast concrete, curtain wall/window wall, metal buildings, and rebar) The course features hands-on training using several different types of Lasers, Auto levels and Theodolites. Classroom instruction and hands on exercises will be based on presentations from the Layout Instruments for Ironworkers training package. Work clothes are required for this course.

INSTRUCTORS: William Michelini, Jason Butz

Ironworker COMET Train-the-Trainer  (SDC 4)

This 20-hour course will enable the participants to deliver the Construction Organizing Membership Education Training (COMET) program for Ironworkers, developed for the AFL-CIO Building and Construction Trades Department by Cornell University and the National Labor College. COMET is an important prerequisite to an effective construction-organizing campaign in that it emphasizes membership awareness and enlists broad support for organizing activities. Participants will receive a set of materials for conducting Ironworker COMET courses in their District Council and/or Local Unions.

INSTRUCTORS: Chad Rink, Christ Rootes

Union Ironworkers: Survival of the Fittest  (SDC 8)

The future of union construction depends on every journeyman and every apprentice. In this 10-hour course, participants will learn, in a very interactive environment, how to provide every apprentice and journeyman with the necessary skills, attitudes, and behaviors that it takes to compete and succeed in our industry. This course is based on the popular book of the same name by Mark Breslin. Participants will receive a copy of the Survival of the Fittest book, Workbook, Discussion Guide, and Instructor’s Guide. Participants will also receive a presentation notebook and a flash drive containing the PowerPoint files used in the course as well as several helpful documents to help them conduct this course for apprentices and journeymen at their local unions. Participants in this course should also enroll in PDC 10 – Facilitation Skills for Ironworkers.

INSTRUCTORS: Reis James, Chris Tobiasson
Foreman Training for Ironworkers  (SDC 13)
Updated in 2020

This 10-hour course is designed to develop instructors to teach the Foreman Training for Ironworkers course. During this course, the participants will learn the roles and responsibilities of the foreman. In addition, they will learn how to create an effective work team, communicate effectively, apply problem-solving skills, document and maintain records, navigate the paperless jobsite, maintain labor-management relations, plan and schedule work, implement a safety program, understand cost estimating and bidding, and ensure productivity and performance. Participants will receive a set of the Foreman Training materials (reference manual, instructor guide, and presentations) so that they can conduct this course for apprentices and journeymen.

INSTRUCTORS: Clint Knowlton, Joe Werbeck

Teaching Introduction to Blueprint Reading  (SDC 14)

This 10-hour course is designed to assist the apprenticeship instructor in the delivery of content related to the basic principles of blueprint reading using the Introduction to Blueprint Reading materials. Strategies and techniques will be demonstrated to help the apprentice instructor not only introduce the basic elements of blueprint reading to the apprentice, but also introduce the apprentice to the various types of blueprints used on the jobsite including; civil, architectural, structural, mechanical, and conveyor.

INSTRUCTOR: Norm Richerson, Greg Hasselblad

Politics and Civic Participation  (SDC 16)

Politics and Civic Participation is an introductory civics and political communication course designed to give any Ironworker the basic tools they need to explain how and why our union is active in political and legislative campaigns. This 10-hour course will provide a comprehensive look at the key issues affecting Ironworkers, techniques for engaging members in politics, and tools for effective political communication with members. Politics and Civic Participation is recommended for anyone who assists in the on-boarding process for apprentices, new members, or new union activists.

INSTRUCTOR: Gina Maglionico
STRUCTURAL

Plumbing, Aligning, and Fastening
Structural Steel

The objective of this 10-hour course will be to focus on the subjects and information of Units 5, 8, and 9 of the Structural Steel Erection Manual. Specific material covered will include equipment and methods used to plumb and align structural frames, and bolting and welding of structural connections. The material will be covered in detail, giving the participants a better understanding of the subject matter and enabling them to then pass that knowledge onto their students at the local level. There will be an emphasis on proper use of the training package and effective teaching methods.

INSTRUCTORS: Bryan Brady, Wayne Worrall

Metal Buildings

This 20-hour course is based on the training package. This course will also use a new 20 x 30 metal building along with several mock-ups (roof and wall). Course content will focus on preparing to erect metal building systems; unloading, laying out and storing materials; reading drawings; erecting structural steel; installing wall panels, trim and flashing; installing roof insulation; panels and ridge caps; installing gutters, downspouts, rake trim and peak boxes; and installing doors and windows. A high percentage of this course will consist of hands-on work with a new, full size metal building. Work clothes and proper PPE is required for the hands-on portion of this course.

INSTRUCTORS: Mike Mansfield

Structural Steel Erection

The objective of this 20-hour course is to enable participants to build an effective structural steel erection training program meeting the needs of industry and the core curriculum, with the goal of enhancing overall work performance of students at the local level. Topics covered will be taken from the Structural Steel Erection Training package with an emphasis on proper use of the package and effectively teaching this material. All students will be required to plan and execute a presentation on one unit from the package. This course will include one day (Tuesday or Wednesday) of hands-on instruction in an outside work area, work clothes and proper PPE will be required on that day.

INSTRUCTORS: Bryan Brady, Wayne Worrall

Precast Concrete Erection for Ironworkers

This 10-hour course will be based on the new Precast Concrete Erection for Ironworkers training package. This course will focus on fabricating and transporting precast concrete products, general erection and safety procedures, erecting double-tee systems, erecting precast concrete wall systems, erecting precast concrete hollow core and girder slab systems, erecting precast concrete bridges and highway sound barriers, erecting tilt-up concrete panels, and reading precast concrete erection drawings.

INSTRUCTORS: Norman Richerson, Greg Hasselblad
Installing Metal Roof Systems Trainer  
(STR 12)

This 20-hour course is designed to prepare iron worker instructors to teach proper standing seam roof installation practices as developed by the roofing manufacturers. This course is based on training by and taught by an instructor from Centria, which incorporates a variety of the manufacturer's standing seam roof systems. Topics include: panel design and testing, preparatory requirements, material handling and storage, insulation considerations and maintenance, panel application criteria, hardware identification and proper installation, panel identification, starting a standing seam roof, maintaining modularity, field seaming requirements and procedures, installation of sealant, endcap, rake trim, gutter, and ridge cap, proper installation of roof penetrations (curbs, skylights, roof fixtures, and other roof penetrations), and how to properly install hips and valleys. Proper installation techniques for insulated metal panels (IMP) will be introduced. Hands-on portions of the class will utilize NCI's roof mock-up, which incorporates a variety of manufacturer's standing seam roof systems. Work clothes and proper PPE is required for the hands-on portion of this course.

INSTRUCTORS: Mike Mansfield, Eric Lytle

Bar Joists, Decking, and Erection Drawings  
(STR 13)

The objective of this 10-hour course will be to focus on the subjects and information of Units 7, 11, and 19 of the Structural Steel Erection Manual. Specific material covered will include methods and procedures for erecting bar joists and decking, and reading structural erection drawings. The material will be covered in detail, giving the participants a better understanding of the subject matter and enabling them to then pass that knowledge onto their students at the local level. There will be an emphasis on proper use of the training package and effective teaching methods. This course will also include hands-on deck welding certification; work clothes and proper PPE is required.

INSTRUCTORS: Bryan Brady, Wayne Worrall
WELDING

Welding: Ironworkers Welding Curriculum Implementation (WEL 1)

The participants in this 20-hour course will receive specialized training from representatives of the Lincoln Electric Company consisting of related classroom instruction and hands-on training, incorporating the Ironworkers curriculum. Each participant will receive the complete new NTF Welding curriculum package. Lincoln Electric and Harris will provide additional curriculum and support material for this course. Participants must wear appropriate welding PPE (including long sleeve shirts).

INSTRUCTORS: Lincoln Electric—Charlie La Riche, Ben Bradbury, Dan Klingman

National Welder Certification Program of North America (FCAW and SMAW 3G-4G-6GR) (WEL 2A)

This 20-hour course is designed for participants looking for a hands-on learning opportunity to improve their proficiency with E71T-8 self-shielded flux-cored wire. Participants will spend most of this course in the welding laboratory, practicing and testing using FCAW-S to obtain welder certifications in the 3G, 4G, and 6GR welding positions. SMAW certification testing in the 3G, 4G, and 6GR welding positions is also available to interested participants.

Participants whose welds meet all acceptance criteria outlined in the welding procedure will receive a National Welder Certificate and Identification Card. NOTE: Canadian Ironworkers are NOT able to obtain a National Welder Certification during this course but are invited to participate in this course for personal development.

Students are expected to follow safe practices and wear appropriate welding work attire (such as long-sleeve shirts) when in the welding laboratory.

WEL 2 is taught by a diverse partnership of representatives from Miller Electric LLC, Hobart Brothers LLC, and the Iron Workers National Fund. The one-on-one instruction offered by this team provides the participant with multiple unique perspectives that can help improve the quality of their own instruction. Classroom lecture and guided activities, although brief, will reinforce the equipment, techniques, and troubleshooting process required to produce. Participants must wear appropriate welding PPE (including long sleeve shirts).

INSTRUCTORS: Robert Fox, Matt Goelzer, Aaron Moore, Michael Blakeman, Greg Schulze, Scott Roy, Sonny Curtis, Cy Finkbonner

Certified Welding Inspector Course (WEL 4)

This course and the CWI examinations are very challenging. A prerequisite for this course is the Certified Welding Inspectors Prep Course (WEL 3). This intensive course reviews the subjects the participants are required to know in order to pass the three American Welding Society (AWS) Certified Welding Inspectors (CWI) tests. The participant is expected to study the Welding Inspection Technology textbook and complete the exercises in the companion workbook prior to attending this CWI course.
In addition, be familiar with the AWS 2020 D1.1 Structural welding code book. The CWI candidate is expected to begin studying the material well in advance of this course. This course meets every day for eight hours (no course sessions on Sunday).

A representative of the American Welding Society will administer the CWI Part B examination to the participants on the final day of class.

Parts A & C of the exam will have to be scheduled and taken at a Prometric site afterwards. They are conveniently located throughout the United States.

Enrollment in this course will be limited to 25 participants. Each Local Union is limited to no more than two course participants in order to ensure as many locals as possible are involved.

Course participants must have completed the CWI Prep course (WEL3) or have previously attended the CWI course (WEL4).

Each course participant must bring a Texas Instruments TI-30X or TI-30Xa calculator to the course.

NOTE: There are a number of welding and reference textbooks required for this course. Upon registering for the course, all books can be purchased as a package from the NTF at a SUBSTANTIAL DISCOUNT.

INSTRUCTORS: Mike Peterson, Richard Campbell

Certified Welding Inspector Course for Recertification (WEL 4B)

This review course is designed to prepare previously certified welding inspectors for their 9-year recertification examination. By taking the WEL4B course, the 80-hour WEL4 CWI course will give credit to those needing to document the 80 hours of training for their 9-year renewal and will not have to take the PART B examination. This course will meet as part of the WEL 4 course and will be held on the same dates as the WEL 4 course. For information regarding manuals and materials required for this course, see WEL 4 course description.

INSTRUCTORS: Mike Peterson, Richard Campbell

Seismic Requirements for Structural Steel Welding (WEL 5)

This 20-hour course presented by representatives of the Lincoln Electric Company covers the latest seismic (earthquake) requirements for structural steel welding. The classroom and hands-on instruction focuses primarily on the AWS D1.8 recommendations for FCAW welding; electrodes, qualification, design and fabrication. This course is recommended for areas with seismic requirements. Participants will receive an AWS D1.8 code book and have the opportunity to complete the certification welding test. Certification will be based on successful completion of weld test examination. Participants must wear appropriate welding PPE (including long sleeve shirts).

INSTRUCTORS: Lincoln Electric—Alex Tocco, Karl Hoes
Stainless Steel Welding (SMAW)  (WEL 10A)

Welding technique and technology related to the shielded metal arc welding (SMAW) process when used on stainless-steel base metals will be discussed and applied in this 20-hour course.

Participants will spend the majority of each course session refining their welding technique on stainless/stainless and stainless/carbon-steel weld joints using the SMAW process. Advanced inverter technology, process troubleshooting, and welding metallurgy specific to stainless steel, and stainless steel/dissimilar-metal welding will be presented to reinforce the hands-on skills developed in the welding laboratory.

Participants whose welds meet all acceptance criteria for the respective welding procedure will receive a National Welder Certificate and Identification Card. **NOTE:** Canadian Ironworkers are NOT able to obtain a National Welder Certification during this course but are invited to participate in this course for personal development.

Students are expected to follow safe practices and wear appropriate welding work attire (such as long-sleeve shirts) when in the welding laboratory.

WEL 10 is taught by AWS-Certified Welding Inspectors and Educators from Miller Electric LLC, Hobart Brothers LLC, and the Iron Workers National Fund.

If certification in both the FCAW-G and SMAW processes is desired, participants are encouraged to also enroll in WEL10B. **Participants must wear appropriate welding PPE (including long sleeve shirts).**

INSTRUCTORS: Matt Goelzer, Scott Roy, Aaron Moore, Michael Blakeman, Greg Schulze, Sonny Curtis, Cy Finkbonner

Stainless Steel Welding (FCAW-G)  (WEL 10B)

Welding technique and technology related to the gas-shielded flux-cored arc welding (FCAW-G) process when used on stainless-steel base metals will be discussed and applied in this 20-hour course.

Participants will spend the majority of each course session refining their welding technique on stainless/stainless and stainless/carbon-steel weld joints using the FCAW-G process. Advanced inverter technology, process troubleshooting, and welding metallurgy specific to a stainless steel, and stainless steel/dissimilar-metal welding will be presented to reinforce the hands-on skills developed in the welding laboratory.

Participants whose welds meet all acceptance criteria for the respective welding procedure will receive a National Welder Certificate and Identification Card. **NOTE:** Canadian Ironworkers are NOT able to obtain a National Welder Certification during this course but are invited to participate in this course for personal development.

Students are expected to follow safe practices and wear appropriate welding work attire (such as long-sleeve shirts) when in the welding laboratory.

WEL 10 is taught by AWS-Certified Welding Inspectors and Educators from Miller Electric LLC, Hobart Brothers LLC, and the Iron Workers National Fund.

If certification in both the FCAW-G and SMAW processes is desired, participants are encouraged to also enroll in WEL10A. **Participants must wear appropriate welding PPE (including long sleeve shirts).**

INSTRUCTORS: Matt Goelzer, Aaron Moore, Michael Blakeman, Greg Schulze, Sonny Curtis, Cy Finkbonner
CWB Inspector Level 1 Course (WEL 11)

Prerequisites: This course is limited to Canadian members only

This 76-hour Canadian Welding Bureau (CWB) course is the first step towards a new career path in visual inspection to help meet the increased demand for skilled welders due to mega-projects nationally and internationally. Topics covered in this course include:

- Welding Health & Safety Basic Joints
- Blueprint Reading Symbols for Welding
- Welding Processes & Equipment Electrodes and Consumables
- Basic Metallurgy and Material Specifications
- Weld Faults and Causes Basic Inspection
- Technology Codes and Standards Functions of the Inspector
- Techniques of Visual Inspection

The objective of this course is to provide an educational experience specifically around the inspection requirements under CSA Standard W178.2 and is designed for clients seeking to enhance their skills and knowledge of the latest metallurgy, inspection and testing techniques.

Requirements for the course include:

- Minimum 1 year of welding or inspection industry experience
- At least 18 years of age

The following materials are required for this course (instructions for acquiring these materials will be sent to those registered for the course):

- CWB Modules 1–4, 6, 8, 10, 11, 13, 15, 16
- CSA W178.2-08 Certification of Welding Inspectors
- CSA W47.1-09 Certification of Companies for Fusion Welding of Steel — 2009
- CSA W59-03 Welded Steel Construction (Metal Arc Welding)

INSTRUCTOR: Lou Petillot

Oxy-Fuel and Hand Plasma Cutting and Gouging (WEL 12)

This 20-hour course covers in detail the safe and proper use of Oxy-fuel and Hand plasma cutting equipment for both cutting and gouging applications. The course highlights the theory and science of the hand held plasma and oxy-fuel process but places most emphasis on the practical everyday use in the field. The course entails specialized training by representatives of ESAB that are experts in the use of hand held plasma and oxy-fuel cutting and gouging. Heavy emphasis is placed on all phases of safety during proper set up, operation and shut down. There is also focus on selecting the right equipment for the job or application. In addition to standard practical use, we will be adding instruction on how to use cutting accessories to do plate edge beveling and prep by using simple tractor type mechanized cutting systems. Students will be given an instructor’s manual, commented copies of presentations. The course is 50% classroom and 50% hands-on applying the techniques learned in the classroom. A Q&A session allows for discussing actual issues encountered in the field and how to address them. Participants must wear appropriate welding PPE (including long sleeve shirts).

INSTRUCTORS: ESAB: S. Cunningham, Travis Ham, Kevin Showers
CWB Welding Inspector Level 2 (WEL 13)

This course is designed for Level 1 Welding Inspectors who want to further increase their knowledge of inspection and testing techniques. This course is 52.5 hours in length. Upon successful completion of the course the participant will receive a Certificate and an Examination Transcript (70% passing grade is required).

Successful completion of the course and module examinations will allow you to write a shorter version of the Level 2 “closed book” theory examination on Welding Fundamentals and Welding Inspection. The opportunity to complete all 8 module examinations required to obtain the “Special Program for Welding Inspectors — Level 2” certificate is available during the course. The opportunity to write the CSA W178.2 examinations is available during Day 8 — application form (Form 450) must be submitted to the CWB 2 weeks prior to the course start date in order to confirm eligibility to write the certification exams. CSA Standard W178.2 requires candidates have 2 years of visual welding inspection experience as a certified Level 1 Welding Inspector.

The following topics will be covered:

- Power Sources for Welding
- Residual Stress and Distortion
- Introduction to Welding Metallurgy
- Mechanical Testing of Welds
- Surface Inspection
- Radiographic Inspection
- Ultrasonic Inspection
- Welding Metallurgy of Stainless Steel

The course includes a review of these topics (having these modules is beneficial):

- Welding Processes & Equipment
- Electrodes & Consumables
- Basic Metallurgy & Material Specification

The in-class presentations are based on the 2010 version of the CWB modules.

Prerequisites: Level 1 Certification to CSA W178.2, 2 years of experience as a certified Level 1 welding inspector.

INSTRUCTOR: Lou Petillot

Advanced Welding Technologies (WEL 14)

The participants in this 20-hour course will receive specialized training from representatives of the Lincoln Electric Company consisting of related classroom instruction and hands-on training. Topics will include safety, inverter power source technology, Waveform control, GTAW (steel, stainless and aluminum), FCAW-G (steel and stainless) and much more. Participants must wear appropriate welding PPE (including long sleeve shirts).

INSTRUCTORS: Lincoln Electric—Dan Klingman, Charlie La Riche, Ben Bradbury
All Position Unlimited Thickness Pipe Welding Qualification (WEL 15)

Participants of this 20-hour course will develop and apply the welding skills needed to complete a pipe welding qualification test that qualifies the welder for unlimited thickness in all welding positions. Participants will use a combination of SMAW and GTAW to join small-diameter, thick-wall, carbon-steel pipe weldments in the 6G position. Prior experience with GTAW is not necessary. A combination of lecture and hands-on activities will introduce participants to the fundamentals of the GTAW process and the techniques required to deposit sound root- and hot-pass welds using the GTAW process.

Participants whose welds meet all acceptance criteria outlined in the welding procedure will receive a National Welder Certificate and Identification Card. NOTE: Canadian Ironworkers are NOT able to obtain a National Welder Certification during this course but are invited to participate in this course for personal development.

Students are expected to follow safe practices and wear appropriate welding work attire (such as long-sleeve shirts) when in the welding laboratory.

WEL 15 is taught by a diverse partnership of representatives from Miller Electric LLC, Hobart Brothers LLC, and the Iron Workers National Fund.

Participants must wear appropriate welding PPE (including long-sleeve shirts).

INSTRUCTORS: Robert Fox, Matt Goelzer, Aaron Moore, Michael Blakeman, Mike Peterson, Sonny Curtis, Cy Finkbonner, Scott Roy
ACKNOWLEDGEMENTS

THE IRONWORKERS UNION GRATEFULLY ACKNOWLEDGES THE SUPPORT OF THE IRONWORKER INSTRUCTOR TRAINING PROGRAM BY THE FOLLOWING COMPANIES, ORGANIZATIONS, COLLEGES AND UNIVERSITIES.

• 3M / CAPITAL SAFETY
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• WASHTENAW COMMUNITY COLLEGE
INSTRUCTOR BIOGRAPHIES

DR. JEFF M. ALLEN has worked with the Annual Ironworker Instructors Training Program since 1996. He is a leading scholar in the area of learning and performance innovation for the knowledge workforce. He’s a Regents’ Professor of Information Science and Director of the Center for Knowledge Solutions at the University of North Texas. At the national level his is the Past-Editor of Career and Technical Education Research, Founding-Editor of Learning and Performance Quarterly and currently serves as Editor-in-Chief of Performance Improvement Quarterly. Outside of his scholarship, Dr. Allen is triathlete, martial artist and former boxer. www.sageprofessor.com

JASON BIRDWELL is a full time rigging and product trainer with The Crosby Group for 5 years before becoming the North America Training Manager in 2020. Prior to joining Crosby, he spent 15 years with Schlumberger Oilfield Services. While at Schlumberger, he worked as a field engineer running and supervising jobs including crane and rigging operations. After 8 years in the field, he spent the next 7 years as a technical instructor training engineers and operators from all over the globe. Jason has a BS in Mathematics with a minor in Physics from Angelo State University.

ROB BARKER started his ironworker career in 2001 and graduated from the apprenticeship with the honor as the outstanding apprentice in his class. In 2005 he attended the annual Instructors training program in San Diego and became a part time instructor and Apprenticeship Coordinator the same year while working in the field. He has held the titles of Foreman, General Foreman, Superintendent, BM/FS-T, and Trustee for the Benefits Fund. In 2010 he earned his Qualified Ironworkers Instructors certificate. Rob is currently a full-time instructor for Local 44 teaching blueprint reading, structural steel erection, reinforcing, welding, OSHA 10 and 30 hour and other courses related to the core curriculum. Other certifications include OSHA 500 trainer, Post Tension Trainer, Bonded Post Tension Certified Grout Technician, STSC, and he received the AWS CWI in 2021. He currently serves as the Vice President of his local.

ROBERT J. BASS has been a member of Local Union #1, Chicago, Illinois, since 1985, and completed his apprenticeship in 1988. Bob has worked in all facets of the trade, from installing rebar to connecting steel. In addition, he has been foreman, general foreman, and superintendent for various contractors. Bob has been an apprentice instructor since 2001. He is certified for IICB Rigging and Signal Person Exam Administrator, Level 1 Unbonded and Bonded Post Tensioning, MSHA & OSHA 500 instructor. Bob was appointed to the position of Apprenticeship Coordinator in 2013. He earned his AWS CWI in 2020.

MICHAEL BLAKEMAN started his ironworking career in 1996 at Ashland, Kentucky Technical College. He graduated in 1999 with certifications in Apprenticeship Training and Welding. He began apprenticeship instruction in the subjects of structural steel, welding, blueprints and rigging for Local #769 while also working in the field as a foreman, general foreman and superintendent. In the fall of 2006 he was appointed to the position of Apprenticeship Coordinator for Local #769. Michael now instructs in the subjects of welding, structural steel, rigging, cranes, blue-print reading, fabrication and layout. In addition, he has been an AWS CWI since 2009 and completed AWS ATF Assessor Training in 2010 and currently performs audits for the National Welding Program. Michael also completed the Supervisor Training Program at Ohio University through the AGC. Other current certifications include CWI, OSHA 500 Trainer and MSHA instructor. He also serves as vice president of his local.

BRYAN BRADY began his career as an Ironworker in 1984 with Local 40 in New York City. He worked part time from 1984–1988 while he attended St. John's University. In 1988 he received his Bachelor of Science degree from St. John's School of Business Administration and began Ironworking full time. In 1990 Bryan completed his apprenticeship with the honor of being named Apprentice of the Year for Local 40. In 1993 he worked as a welder during the repair of the World Trade Center and from 2001–2003 he was a general foreman during the clean up and rebuilding of the WTC site. In 2002 he began teaching for the Local 40 and 361 Joint Apprentice Committee and in 2005 became the apprentice coordinator.
**BENJAMIN BRADBURY**  
Ben Bradbury started working at Lincoln Electric in 2012 in the consumable R&D lab. At that time he welded most every process and was the lead welder for that department. He welded for R&D until March of 2017 when he was selected by the Lincoln Electric Weld School for an instructor position. He has since been teaching primarily API and ASME pipe classes. In 2020 he began a new role in the Technical Training Department as a Customer Training Instructor and works primarily supporting the skilled trades nationally. In 2018 he became an AWS/CWI/CWE.

**RICHARD CAMPBELL** is a Bechtel Fellow with Bechtel Corporation's Construction Welding and NDE group. He is an AWS SCWI, a CWB Level 2 Welding Inspector, and an ASNT NDT Level III Visual Testing Inspector. With a BS degree in Welding Engineering from LeTourneau University and a PhD in Materials Engineering from RPI, he has worked for more than 40 years in the welding industry, including construction, structures, pressure vessels, piping systems, and government projects. For 9 years he was chair of the AWS D1K Subcommittee on Stainless Steel Welding, responsible for publication of the AWS D1.6:2017 Structural Welding Code — Stainless Steel. He is also a member of the AWS D1 Committee on Structural Welding, the D1H Subcommittee on Sheet Steel, the AWS A2 Committee on Definitions and Symbols, and the AWS A2C Subcommittee on Symbols. Rich is vice chair of the ASME B31.3 Process Piping Code section committee, and member of numerous other ASME and AWS codes and standards committees, including Section IX's subgroup on Qualification.

He has taught AWS CWI classes for over 25 years and has presented several seminars on welding codes, stainless steel welding, and welding symbols for AWS. Dr. Campbell is author of over 30 technical articles on welding or metallurgy. As an expert in stainless steel welding, he authored AWS's *The Professional's Advisor on Welding of Stainless Steels*, has penned several *Just the Facts* articles and a series of articles on welding symbols in the quarterly AWS publication *Inspection Trends*.

**JASON BUTZ** A third generation Ironworker, started his Ironworking career in 2006 with Local 63 in Chicago. He completed his apprenticeship program, becoming a journeyman finisher in 2010. Jason’s specialty in curtainwall soon found him as foreman and General Foreman for curtainwall contractors. Jason has been an instructor for Local 63's Apprenticeship Program for the past four years and is currently assisting in the mock-up, curtain wall/total station training program provided by the International Department of Ornamental, Architectural and Miscellaneous Metals. (DOAMM) Jason is the current owner of ArcWall, a company that specializes in the layout points for the installation of Ornamental, Architectural and Misc. metals. ArcWall has worked with many Installers throughout the Chicago area supplying the layout points for the installation of their materials.

**KEVIN BYRNES** is a 42 year member of Local 424 (New Haven, Conn.), graduating from the apprenticeship program in 1984. In his various roles at Local 424, Kevin served for 15 years as the apprentice instructor, 20 years on the local’s joint apprenticeship committee, and 3 consecutive terms on the executive board. Subsequently, he went on to serve 3 consecutive terms as that local's president and business agent. He also served as a member of the Connecticut AFL-CIO Executive Board and as president of the Fairfield County Building Trades Council. In November 2009, Kevin came on board as the eastern regional director of IMPACT. Effective September 9, 2013, General Organizer Kevin Byrnes was reassigned to the general secretary's office at headquarters and was appointed executive assistant to the general secretary, effective November 1, 2013. Effective July 1, 2015, Executive Assistant Kevin Byrnes was promoted to chief of staff.

**BART COLLART** has held numerous positions in instructional design, program/project management and technical management during his 20+ years in the education and training industry. In his role as Program Manager with the K-Learning Group, Bart worked closely with the Ironworkers at implementing and maintaining our Learning Management Systems, while leading the design and development of training curriculum. Bart is proud to continue his relationship with the Ironworkers in his new role as Learning Strategist with the Apprentice Training team, applying his wealth of experience, knowledge and technical expertise in managing our LMS and deploying effective, state-of-the-art training.
JAMES J. CREEGAN, III began his ironworking career in 1986 with Local Union #45, Jersey City, NJ. After completing his apprenticeship, he worked at all facets of the trade in many different capacities. Jim has been an instructor for the District Council of Northern New Jersey since 1991. He received his Qualified Instructor certificate in 2010. James is currently serving as a business agent.

SONNY CURTIS began his ironworking career as an ironworker in 1993, with Shopmen Local 516 Portland, OR. He transferred to Ironworkers Local 29 Portland, OR, in 1997. After a short stint with the U.S. Border Patrol, he completed his apprenticeship in 2005. He became the welding instructor for his local in 2008, and attained his AWS CWI/CWE in 2012, through the Ironworker Instructor Training Program, at Washtenaw Community College. He also serves on the Clark Community College Welding Advisory Committee, where he was inspired to teach welding, by his instructor, when he was just starting his career. He proudly served in the U.S. Navy 1988-1992, operating a guided missile launcher.

CYALTSA FINKBONNER, as a certified wire welder, joined Iron Workers Local 86 in 1995. Growing up working in the commercial fishing industry, she knew all about hard work and good work ethics. After successfully completing her apprenticeship, she became a JIW, investing her time under the hood as a production welder. In 2005, she started teaching in the weld shop as a part-time welding instructor for Local 86, which was also her first year as a student at the Ironworkers Instructor training in USD. Since then, Cyaltsa has been a full-time welding instructor for her local. She’s currently teaching the 3rd year apprentices, with in-class lectures and hands-on in the weld shop, preparing the apprentices to become certified welders.

TODD FOREMAN began his career with Local 340 in 1998 while simultaneously attending Grand Valley State University. In 2000 he graduated with honors from G.V.S.U. with a bachelor’s Degree in Safety Engineering / Industrial Hygiene. Todd continued in the Local 340 apprenticeship, graduating to JIW in 2002 as well qualifying as a competitor in the International apprenticeship contest. Todd became versatile in welding, structural, reinforcing, and Post Tensioning working on multiple bridges. Todd filled roles of Foreman, General Foreman, and Safety Coordinator. Todd became the Apprenticeship Coordinator for Local 340 in 2012 and became assistant Coordinator for Local 25 in 2018. He achieved the AWS CWI in 2013 and holds Instructor qualifications in: First Aid/CPR, EPRI, High Angle Rescue, MSHA, OSHA, as well as the Ironworkers Instructor Certification.

ROBERT FOX has served various roles with Hobart Brothers LCC since 2012. He currently functions as Marketing Specialist, tasked with developing resources to assist the implementation and application of aluminum and metal-cored filler metals. As a welding engineer, Robert partnered with customers around the globe to provide welding technical support that optimized the performance, properties, and cost-effectiveness of multi-process welding applications big and small. He is a member of the AWS A5 Technical Subcommittee pertaining to welding filler metals and holds a BS in Welding Engineering Technology.

CHANTÉE GEIGAN is the Computer Service Manager for Jhpiego—a non-profit training organization affiliated with Johns Hopkins University in Baltimore, Maryland. Mrs. Geigan manages the Help Desk as well as being lead technician answering service requests on computer hardware and software issues. Within her position at Jhpiego, Chantée conducts hardware and software orientations to the staff on Microsoft applications and shows staff how to use resources such as printers, cameras, and digital projectors.
MATT GOELZER is currently an Applications Specialist for Miller Electric. He also certifies welders for Ironworkers Local 8 Milwaukee in the Fox Valley area. He joined Local 8 in 1998 and completed a three-year apprenticeship. His first job was at Miller Park, other jobs include Lambeau Field, Elm Road Generating Station and Point Beach Nuclear Plant. He taught welding to apprentices for three years after which he began certifying journeyman and apprentices to the present. Currently he is a member in good standing, Matt is a JIW/AWS/CWI.

GREG HASSELBLAD joined the Ironworkers in 1999 as an apprentice with Local 512 in Minneapolis-St. Paul. He worked for various contractors as an apprentice, journeyman, and foreman until his family moved to Nashville in 2005. After arriving in Nashville, Greg worked in and around Local 704 and 492’s jurisdiction until he transferred his membership to Local 492 Nashville, TN in 2013. In that same year, he joined the apprenticeship teaching staff as a welding instructor. Greg was hired as the Apprenticeship Training Coordinator in April of 2016. His certifications include Osha 500, First Aid/CPR, CWI, and CWE. Greg received his qualified instructor certificate in 2019. Greg and his wife Michele have been married for 30 years and have five children together. In his free time, Greg enjoys riding his motorcycle, boating, skiing, and fixing cars.

KARL HOES has been a welding instructor at Lincoln Electric since 2003. He has trained welders and instructors at multiple welding schools and national union training programs across the country. Karl is also an AWS Certified Welding Inspector/ Educator. Karl is a consultant and welder at trackside welding locations including the Grand Am Rolex 24-Hour Race and several NASCAR events including Daytona, Loudon New Hampshire, and Talladega. He also teaches workshops for the Experimental Aircraft Association (EAA) at their national events. Prior to his position at Lincoln Electric, Karl spent 28 years as a welder/fabricator at LTV Steel in Cleveland, Ohio.

JAMES HYDEN started his career in 1994 at Local 44 Cincinnati, Ohio where he quickly became a certified welder and completed the apprenticeship in 1998. He worked many jobs as Foreman, General Foreman and Superintendent. He started teaching welding at Local 44 in 2000 and became a CWI in 2007 & 2015. James gained his Qualified Instructor Certificate in 2018 and began to co-instruct the IWATS class in 2019.

BRAD HUTH has been a member of Ironworker’s local 416 (Los Angeles, CA) since in 2004. He graduated top apprentice in his class and competed at the International Apprentice Competition in 2008. He worked in the field as a Journeyman and Foreman and sits on Local 416s Executive Board. Brad has been a full time Instructor since 2013 and received his Certified Instructor Certificate in 2018.

REIS JAMES started his Ironworking career in 1983 as a pre-apprentice in Local 9 Niagara Falls New York and later became a journeyman member of Local 33 Rochester New York. Being the son of a Union Ironworking contractor Reis learned the work ethic and competitiveness required to excel in the Ironworking trade. In 1991 Reis moved to Florida to pursue his calling as an Evangelical Minister. As a minister he sharpened his speaking and organizational skills by participating in overseas crusades consisting of 14 countries and addressing audiences up to 40,000 people in a single event. In 2002 Reis returned to the Ironworking trade in Local 397 Tampa Florida. He soon joined the Local’s training staff and began attending International Instructor classes and became a Certified Instructor. In 2007 he became the Training Director for Local 397 where his administrative and organizational skills proved to be invaluable. As the Training Director he has given hundreds of presentations for Local 397 to schools, the Department of Labor, Elected Officials and the Military. In 2015 Reis became theIndustrial Analyst for the Southeastern States District Council. His main responsibilities are promoting the Union Ironworking trade to schools, military and community officials, in addition to recruiting top quality candidates for Apprenticeship. Currently, he helps with business development and recruiting, for Ironworkers Local Union 709 in Savannah Georgia.
KURT JOHNSON began his career as an ironworker with Local #14 in 1985. He has held positions at Local #14 as vice president, trustee, and currently is an elected member on the executive board. His current employment is with Harris Rebar as a field superintendent/safety coordinator. Kurt has been an instructor for Local #14 for the past six years teaching unbonded post-tensioning and re-inforcing concrete for ironworkers.

DR. JULIE KISSEL has been teaching as a full-time faculty member at Washtenaw Community College since 2004. She is the lead instructor for the developmental writing courses, where she is also responsible for writing and editing the lab manuals used to support these writing courses. Julie earned her BS, MA, and Ph.D. from Eastern Michigan University in English Language and Literature, Special Education, and Educational Leadership, respectively. Julie spent her first seven years as a special education teacher within the juvenile justice system and then a middle school before becoming a full-time faculty member at WCC. She has also been active in the Washtenaw Community College Education Association (WCCEA), representing faculty, advisors, counselors, librarians, and lab/clinical technicians, serving as the WCCEA president since March 2020.

DAN KLINGMAN began his career at Lincoln Electric in 1994. Since that time he has worked as a production welder, robotic operator, application engineering technician, and robotic applications technician. Since 2004 he is working in the technical training department focusing on the skilled trades. In addition he continues to train on advanced technology, and advanced motorsports training programs. In 2020 Dan became the Manager, Educational Programing and is responsible for managing the Lincoln Electric LEEPS/NC3 program in the US and the skilled trades program nationally. Dan is also an active member of the National Skills USA welding committee and has been a trackside welder at the Indianapolis 500 since 2006. Dan earned his AWS CWI/CWE in 2012.

CLINT KNOWLTON started his ironworker apprenticeship at Local 721 in 1997. In 2000 he was recognized as the Local 721 Outstanding Apprentice and then competed at the International Apprentice Competition in Miami, Florida finishing in 3rd place. Clint worked as a journeyman ironworker eventually becoming a convey or general foreman. He was appointed a full-time Instructor in 2005 and became the Apprenticeship Coordinator in 2007. Clint helped to develop the Canadian Ironworker Trade Qualification Red Seal Examination.

CHARLIE LA RICHE began his career at Lincoln Electric in 1997. Since that time, he has worked as a production assembler and final tester, completed the comprehensive welding program at the Lincoln Electric welding school. From there he has worked in R & D testing experimental and current products to meet AWS standards. He became a welding instructor in 2011 where he teaches multiple process and advance classes. In addition, he travels doing trackside welding at NASCAR events, welding workshops at Airshows, tradeshows and, instructor workshop. Charlie earned his AWS CWI/CWE in 2013.

GINA MAGLIONICO is the Iron Workers’ Political Representative. Her work focuses on developing local union political coordinators and action plans, IW get out the vote initiatives, and membership mobilization programs. Gina joined the Iron Workers’ Political Department in 2018 after nearly a decade of work with the AFL-CIO and holds degrees from both Xavier University and Kent State University.

MIKE MANSFIELD began his career in 1994 with Ironworkers Local Union #25. Mike completed his Apprenticeship as a Metal Building Erector in 1997. He has worked in all facets of metal building, including being a foreman. In 2001 Mike upgraded his skills to become a Structural Ironworker and is currently the Pre-Engineered Business Agent with Local Union #25.
PETER MARCYAN became an apprentice with Local 580 in 1992. After completing his apprenticeship he worked in all facets of the Architectural and Ornamental industry as a Journeyman and eventually as a General Foreman. In 2002 Peter became an instructor in the Local 580 Apprenticeship Program and has now progressed to teaching journeymen upgrading courses, including layout and instruments, blueprint reading and scaffold safety. Peter is currently a third year apprentice instructor and a Foreman for a curtain wall company.

LINDA LANCASTER MEEKS established the Computer-Aided Drafting & Design (CAD) program at the Francis Tuttle Technology Center in 1988. She holds a Bachelor of Science in Education from the University of Central Oklahoma. Prior to coming to Francis Tuttle, Linda was a graphic designer for McDonnell-Douglas Corporation. Linda has been a curriculum developer and vocational instructor since 1981, and has taught at the Ironworker Instructors Training Program since 1986.

ROMAN MEEKS, P.E. is the Vice President and Director of Engineering of Design Associates, a mechanical engineering firm that offers services ranging from engineering analysis to patent drawings and technical training. He holds a Bachelor of Science in Mechanical Engineering from the University of Oklahoma and is a registered professional engineer in the state of Oklahoma. Additionally, Roman has served as an adjunct instructor since 2002 in the Computer-Aided Drafting & Design (CAD) program at the Francis Tuttle Technology Center in Oklahoma City and has taught at the Ironworker Instructors Training Program since 2003.

WILLIAM J. MICHELINI served his apprenticeship in Local Union #63, Chicago, Illinois, and has been a member since 1966. Bill began teaching for the JAC in 1984, and has instructed all facets of the architectural and ornamental trade. He has worked for a number of contractors on architectural and ornamental work as a journeyman, foreman, and superintendent. Bill was apprenticeship coordinator for Local Union #63 for six years, until 1998.

COLIN MILLARD started ironwork in December of 1995 at Local 383 (Madison, Wis.) He became an apprentice in February 1996 and finished his apprenticeship in October 1999. Millard has worked in all aspects of the trade, from tying bridge decks to erecting windmills. Starting in 2002, he held many positions in Local 383 (Madison) including Trustee, Vice President, President, & Apprenticeship Instructor. In February 2008, he assumed the role of business manager/financial secretary-treasurer. In April 2009, he was hired by Local 8 (Milwaukee) as an organizer. In addition, he taught COMET and wind turbine erection for Local 8. In November 2009, he was appointed business manager of the newly chartered Pre-Engineered Metal Building Local 849 (Luck, Wisc.). In June 2010, Brother Millard transferred his membership to Local 8. He was appointed general organizer effective July 3, 2011 to the Ironworkers International staff. In January 2016 Brother Millard was appointed Special Assistant to the General President. In September of 2019 he was promoted to Executive Assistant to the General President.

CHRIS MONROE graduated in 1979 from Hobart Welding School. In that same year started at Hobart Brothers in the QC and RD lab working as a test welder. In 1996 advanced into Application Engineering Lab Supporting field sales and distribution. Focus was to answer technical calls as well as traveling to distributor and end-users location for training and technical support. In 2013 to now my focus has turned to Regional Training Consultant for Hobart Brothers and Miller Electric. Chris holds CWI/CWE certifications.

AARON MOORE is a technical applications specialist at Miller Electric. He works in the Power Systems Division where his primary focus is end user applications in the construction/fabrication market segment. His career in welding began in 2007 when he started as an apprentice for Local 433. After completing the apprenticeship and several years of working in the field, he pursued a BS in Welding Engineering from Ohio State. While attending school he had the opportunity to work summers out of Local 172 and later intern as a weld engineer for Miller Electric.
**INTERNATIONAL ASSOCIATION OF BRIDGE, STRUCTURAL, ORNAMENTAL AND REINFORCING IRON WORKERS**

**JULY 2022 PROGRAM CATALOG**

**DR. MANDOLEN MULL** is the founder of MullMentum Consulting, LLC and is the Department Chair of the Puri School of Business and an Assistant Professor of Leadership at Rockford University. With a Ph.D. in organizational development and change, and an MBA in international business, Dr. Mull’s expertise lies in operations management and leader development. Prior to joining the realm of academia, Dr. Mull accrued over a decade of corporate leadership experience in the fields of healthcare, property preservation, and logistical distribution. Possessing an extensive background in leadership performance, Dr. Mull consults with organizations across the globe, providing analysis and interventions targeted to improve organizational performance outcomes. Dr. Mull also conducts scholarly research pertaining to leadership intentions, change management, and statistical analyses.

**JOE MULREADY** completed his apprenticeship with Local 24 in 1991. He has worked as a Journeyman, foreman, and general foreman. He became an apprentice instructor in 2001 and a Certified Welding Inspector in 2005. In 2013 he was appointed as apprenticeship coordinator and in 2014 he was appointed to the Correctional Industries Advisory Committee in Colorado. He has also held the position of Executive Board member and President in Local #24.

**JON MUSGRAVE, PH.D.** is an assistant professor of management at Morehead State University in the Elmer R. Smith College of Business and Technology, teaching courses in organizational behavior, business management, leadership, and ethics. He is a retired career firefighter and was a small business owner for over two decades. He managed teams ranging in size from four to over one hundred members during his fire service career. His small business focused on the acquisition and performance of local, state, and federal contracts. He also works part-time as a consultant and as a course developer for Northcentral University. Dr. Musgrave is a passionate fan of college football, a beekeeper, and enjoys spending time with his wife and their two children.

**JAMES OWENS** has been an Ironworker for 26 years. James was organized into Local 86 Seattle in 2004 and went through the 4-year Apprenticeship, receiving JIW status. In 2014, he came to work for the Local 86 Apprenticeship Program, where he served as Instructor, Asst. Coordinator, and Coordinator. In 2019 James was appointed Training Director for the Pacific Northwest District Council. July 1st of 2021, he was appointed by President Eric Dean to the National Training Fund as the West Coast District Rep./Training Specialist. James specializes in grants and played a crucial role in over three million dollars of grant awards to local apprenticeship programs that placed 272 new apprentices into their programs.

**SCOTT PAPINEAU** started his Ironworker apprenticeship at local 720 in 1996 and received his Journeyman Ironworker Generalist w/Red Seal in 2000. Scott worked as a Journeyman Ironworker on various projects throughout Alberta eventually holding the position of Foreman, General Foreman and Superintendent for various contractors. Scott was appointed the Assistant Apprenticeship coordinator/Training instructor in 2010 and took over the role of Apprenticeship coordinator/Training instructor in 2011. Scott is also the presiding officer for the Alberta Ironworker Provincial Apprenticeship Committee and the recording secretary for the Alberta Building Trades Training Association committee.

**ERNESTO PENUELAS** started his apprenticeship with Local 433 Los Angeles in 1987 and became a journeyman in 1989. Ernie has worked in several facets of the trade, as a hand, a job steward, a foreman and General foreman. Ernie started teaching part time in 2001 and became a full-time instructor in 2014 to the present. He has served local 433 at the executive board level 2003–2006, as an Organizer from 2005 to 2006 and a Business Agent 2006–2012 and as Local 433’s Vice-President 2015 to present. Ernie has a teaching credential from USD 2001 for adult education and received his Qualified Ironworker Instructor Certificate in 2016. He is a Certified Rigger and Exam Proctor, and Qualified Trainer for MSHA, OSHA, COMET, and Total Station.
MICHAEL P. PETERSON began his career as a Union Ironworker in 1990 with Ironworkers Local 229 in San Diego, California. He completed his apprenticeship in 1993 and was recognized as the Outstanding Apprentice of the Year. During his career he has worked as a Journeyman, Foreman, and General Foreman in Reinforcing/Post Tensioning, Structural, Metal Decking and Miscellaneous facets of the Ironworker trade. He became an instructor at the San Diego Ironworkers Local 229 Apprenticeship & Training Program in 2000. He received his Qualified Ironworker Instructor Certificate in 2005. He was hired as the Apprenticeship & Training Coordinator for Local 229 in 2012 and then became AWS CWI in 2014. Mike has attended the Annual Instructor Training Program since 2000. He is also the Chairman of the San Diego Apprenticeship Coordinators Association.

LOU PETILLOT is the main international Trainer for the Canadian Welding Bureau, he combines over 30 years’ experience as a Red Seal B Pressure Welder, 12 years as a college professor in Welding Technology and a Master’s degree in Adult Education. For the past 5 years Lou has trained companies, inspectors, engineers and supervisors for CWB throughout North America, Asia and the Middle East. He has had the pleasure of working with some of the world’s premiere welding organization and this includes his favorite The Ironworkers of North America.

JASON RAFTER is currently the apprenticeship coordinator for Local 118 Sacramento, CA and Reno, NV. Jason began working as an Ironworker in 1995 and completed his apprenticeship in 1998. Working as journeyman, steward, and Foreman in all facets of the trade he became the full-time instructor in 2006. Jason earned a part-time teaching credential from the state of California in 2008 and earned his National Training Fund Qualified Instructor certificate in 2012. Jason’s qualifications include OSHA 500, MSHA, Qualified Rigger and has been an AWS CWI since 2009.

MICHAEL K. RICHARDS is the Business Manager of Local Union No. 584 in Tulsa, OK. A third generation Ironworker, a CWI, and a lifelong lover of history particularly labor history. In his spare time, and when the weather permits he is an avid Sailor.

NORMAN RICHERSON completed his apprenticeship in 1996 at Local 798 Mobile, Alabama. He had the honor of being named Apprentice of the Year. Norman has worked as a Foreman, General Foreman, Superintendent and Project Manager. Norman started teaching welding and safety classes part-time in 2003. He is a Certified Welding Inspector (CWI) and an OSHA Outreach Trainer. Norman became the Apprentice Coordinator for Local 798 in 2009 and teaches Apprentices and Journeymen full time.

CHAD RINK a Third generation Iron Worker began his career in 1994 in Local 207, Youngstown, Ohio. Graduated from the apprenticeship in 1999 and in 2003 transferred to Local 3, Pittsburgh, PA. Throughout Chad’s career he has worked as a journeyman, foreman general foreman and apprentice instructor for locals 207 and local 3. In 2007 Chad began his career as an organizer for Local 3, the Great Lakes District Council and the International. Chad currently serves as the Assistant Director of Organizing.

JOSEPH ROONEY became an apprentice with Local 580 Ornamental Ironworkers in 1994. After completion of the apprentice program, Joe worked as a journeyman with companies that did finishing work with exotic metals. In 2001 he became a foreman and general foreman in New York City.

In 2012 Joe became an instructor for Local 580 Apprenticeship Program. His certifications include Osha 500, First Aid/CPR, and welding processes SMAW and GTAW. In 2015 Joe received his “Qualified Ironworker Instructor” certificate with the International. Joe became a full-time instructor for the AJEF in 2018. He teaches blueprints, optical levels and Rigging, along with journeyman upgrading classes.
CHRIS ROOTES  After serving in the United States Navy from 1984-1988 and receiving an honorable discharge, general organizer Chris Rootes began his construction career in the Pacific Coast Metal Trades in March of 1990 until the fall of 1997. He started his career as an Iron Worker in November 1997 on permit and in April 1998, was organized and initiated as a member of Local 512 (Minneapolis/Saint Paul). He is a third-generation member of Local 512 and has worked throughout the jurisdiction of Iron Workers Local 512 on various projects and many facets of the trade. In January of 2003, Christopher was brought on staff with Local 512 as an organizer and held that position until September of 2010. In April 2012, he became a district council organizer covering the North Central States District Council. In January 2016 he was appointed district representative and assistant director of organizing. Effective January 20, 2018 Christopher was appointed general organizer where he continues his duties and assignments as the assistant director of organizing.

SCOTT ROY  became an Apprentice with Local #597, Jacksonville, FL after honorably serving 8 years in the United States Marine Corps Infantry. He was promoted to Journeyman status in 2007 and took on the roles of Foreman & General Foreman. In 2010 he passed the CWI exam and became the welding instructor and CWI for Local 597. In 2011 he was hired as the Training Director, a position he currently holds. Scott is a CWI and Authorized OSHA Instructor. Scott received his Qualified Ironworker Instructor Certificate in 2017. He has held several offices within the Local Union but is currently serving as the President of Local 597.

DEBORAH SAMUELS  has been teaching multiple communication courses at both Eastern Michigan University and Washtenaw Community College since the fall of 2005. Her fervor for teaching started with her position as a graduate assistant at EMU while she was studying communication with an interpersonal communication focus. Her primary teaching interests cover the areas of ethical communication and multiculturalism. Additionally, she holds the position of assistant director of the basic speech course where she aids the assessment of student learning as well as mentoring graduate assistants of the department. As a native Michigander, when she is not in a teaching role you can find her enjoying the Great Lakes, riding bike trails, and camping with friends and family.

GREG SCHULZE  began his iron working career in 1983 as an apprentice with local 84 in Houston, Texas, he graduated the apprenticeship in 1987 as the outstanding apprentice in his class. Greg has worked at all facets of the trade, as a foreman, general foreman and superintendent. He worked as an apprenticeship instructor from 1995 to 1997, and in 2008 was appointed statewide director of training for all five local unions in Texas. Greg is currently a MSHA and OSHA 500 instructor, as well as a practical examiner for NCCCO, rigger and signal person. He earned his CWI in 2013, served as president of his local for 6 years and is currently recording secretary for local 84.

KEVIN SHOWERS  Area Business Manager for ESAB Welding and Cutting Equipment with over 32 years’ experience in the welding, plasma and oxy fuel cutting industry. Kevin is experienced in all welding and cutting processes, having lent his expertise to numerous educational facilities and competitions, including Skills USA. Additionally, Kevin serves on the advisory boards for several distributors and technical institutions. Kevin has assisted all segments of the industry in meeting their welding and cutting needs. He brings a vast “hands on” knowledge and practical field application to the training environment.
BRIAN L. TANNEHILL is a second-generation Ironworker and has been a member of Local #584 for 17 years. He graduated the apprenticeship in 2006. Brian started teaching at Ironworkers Local 584 Apprenticeship after graduation. He began attending the summer training program in 2008. In 2012 Brian was hired to be the Apprenticeship Coordinator at Local 584. General President Eric Dean promoted Brian to District Rep/Training Specialist assigned to the National Training Fund on February 1, 2021. Brian’s qualifications include OSHA 500 Trainer, Qualified Rigger and Signalperson proctor/trainer, CWI, and American Red Cross instructor.

BEN TAVES has been welding and fabricating since he was in high school and worked on the family crop farm in central Washington. He has held numerous jobs over the years including owning and operating a construction company, being a plant manager of a welding and fabricating shop, a welding inspector, and a welding instructor for more than 15 years. Ben is also a trained shop instructor with a Masters degree. He was an Industrial Arts instructor and teacher trainer at the State University of New York, and was a supervising instructor of college seniors in their practice teaching experiences.

Ben became a CWI in 1999 and has been teaching CWI and custom seminars for American Welding Society for 4 years. Ben loves teaching and especially enjoys giving back to this industry by helping people become successful as welding inspectors.

ROSS TEMPLETON is the director of Ironworkers Political Action League. He is on call to assist locals across Canada and the United States with their political needs. Ross has fought political campaigns across the United States for the Ironworkers and represents the International in Washington, DC. He is a graduate of the University of Central Florida and the Harvard Trade Union Program.

CHRIS TOBIASSON joined Local #387 in Atlanta, GA as a first-year apprentice in 2004. He completed his Apprenticeship in 2007, also during this time he earned his Associates Degree of Applied Science in Apprenticehip Technology, thru correspondence, from Ivy Tech Community College in Indianapolis, IN. He started teaching as an instructor with the apprenticeship in the evenings in 2008, then started full-time in the fall of 2009. In 2010, Chris became Apprentice Coordinator and earned his CWI certification. Since 2016 Chris has served as the Technical Chair for the Georgia State SkillsUSA Competition over the Welding, Welding Fabrication, and Welding Sculpture events. In August 2018 he was sworn in by Georgia Governor Nathan Deal to the Georgia State Workforce Development Board and he also sits on the Performance, Accountability, and Finance subcommittee. Teaching credentials include: First Aid/CPR, OSHA 500, AWS CWI, AWS WPQ1, Qualified Ironworker Instructor. Chris is also an officer of Ironworkers Local 387 and has been one since 2010. Serving for 4 years as Recording Secretary and since 2014 as President while continuing to fulfill his duties as Apprentice Coordinator/Training Director.

ALEX TOCCO began his career at Lincoln Electric in 1994. The first ten years he manufactured welding wire and took test welds for multiple products and helped with trouble-shooting new products and equipment for various welding wires. Since 2004 he has been teaching at the Lincoln Electric welding school with all welding processes. In addition to teaching, he is involved in trackside welding at various NASCAR tracks and teaching welding to multiple skilled trades. He is also CWI/CWE since 2013.

JAY TWEET has completed his Masters of Science in Education from North-Western University, Evanston, IL. For the past 17 years he has worked as a high school teacher in Lakeside, California. In 2020, Jay was named one of eleven finalists for California Teacher of the Year out of over 300,000 teachers. He has worked with the Annual Ironworker Training Program at USD and Washtenaw CC for over 20 years. Jay currently leads the bargaining team for his union of over 900 teachers, the Grossmont Education Association.
JOE WERBECK started his career in 1985 with Local 433 (Los Angeles, CA). He was first indentured as an apprentice in 1986 and graduated in 1989. Working primarily in miscellaneous, ornamental and structural steel he held positions as foreman, general foreman and superintendent. By 1999 he moved into the front office as an operations manager. Joe was involved in estimating, purchasing, logistics and project management before returning to the field as a superintendent in 2011. In 2002 he became a Local 433 part-time instructor and has been a CWI since 2007. Joe has conducted a number of the Superintendent Training for Ironworkers courses around the US and Canada.

JASON R. WILLEY started his career as an Ironworker out of Local 21 Omaha, Nebraska in the fall of 2005 as a probationary member. He was accepted into the apprenticeship program one year later and graduated to Journeyman Ironworker in 2010. Over the years, he has held numerous positions within the Local as well as the roles of Job Steward, Foreman and General Foreman. In March of 2015, Jason had the opportunity to serve as President of the Local and in November of 2017, assumed the role of Apprenticeship Coordinator. Since then, he has made some very positive changes to the program. Some including the implementation of the LMS (Learning Management System) as well as transitioning from night classes to block training. Jason is an OSHA Instructor and a First Aid/CPR Instructor. He is a tech forward thinker and appreciates the benefits technology can provide, the learning and teaching process.

WAYNE WORRALL, JR. has been a member of Iron Workers Local Union No. 771 (Regina, Saskatchewan – Canada) since 1998. He completed his Apprenticeship in 2002 and holds Interprovincial (Red Seal) Standards/Canadian endorsement in the Iron Worker trade. Wayne has worked as a Welder/Iron Worker and Supervisor on numerous construction and maintenance projects throughout the Province of Saskatchewan. During his career with 771, Wayne has served the local union on several levels: Examining Committee, Executive Board, Vice-President and President/Business Agent/Trade Coordinator. He is currently Business Manager of Local 771 and also serves as Chairman of the Iron Worker Trade Board for Saskatchewan.

KIM ZIMMERMAN is currently the President / Coordinator of Local Union No. 771 (Regina, Saskatchewan – CANADA). Since 2012 he has instructed various apprentice classes at the local training facility. Received his Qualified Ironworker Instructor Certificate in 2018. In his spare time he enjoys fishing and hunting.
North Quad Dorm:
- Ironworker Registration and dorm check-in
- Address for GPS: 105 South State Street, Ann Arbor, MI 48109-1285
- Check Ironworker website for detailed driving and parking directions
WASHTENAW COMMUNITY COLLEGE

Washtenaw Community College
4800 East Huron River Drive, Ann Arbor, MI 48105-4800

Bus drop-off and pick-up point
Outside Pavilion
Ironworker Office in Morris Lawrence (ML) room 130
Phone: 734.677.5394
Phone: 734.677.5133

Breakfast & lunch daily and the Thursday evening awards session in the Morris Lawrence Building

Park in lots 1, 2, 3 or 4

Coming from UM on Clark Road – turn left on East Huron River Drive

Outside Pavilion
The National Training Fund is a member of the U.S. Green Building Council (USGBC), because of its commitment to energy-saving green building construction and renovation.