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.

The Iron Workers International Union engaged an environmentally friendly printer for the production of this piece. The print company is 100% wind powered, carbon neutral, an EPA Green Power Partner and employs qualified union craftsmen. It was printed using vegetable-based inks.

Printed in the USA

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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 35th 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 2019 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
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NATIONAL TRAINING FUND TRUSTEES

LABOR TRUSTEES

Eric Dean  
General President

Ronald J. Piksa  
General Secretary

Kenneth “Bill” Dean  
General Treasurer

Donald Zampa  
General Vice President

MANAGEMENT TRUSTEES

Victor E. Cornellier  
TSI/Exterior  
Wall Systems

Dave McEuen  
California Erectors, Inc.

William Brown  
Ben Hur  
Construction Company

Joseph Merlino  
Bayshore Rebar
NATIONAL TRAINING FUND STAFF

Lee Worley  Ed Abbott  Russell Gschwind  Michael Sampson  Jason Corder

Bart Collart  Joseph Hunt, III  Brian Caskey  Cinthia Garnica  Liz Harvey

Christine Vermillion  Morgan Yuhase

Courtney Attig  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
<table>
<thead>
<tr>
<th>DAY</th>
<th>TIME</th>
<th>EVENT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MONDAY, JULY 8, 2019</strong></td>
<td>8:00 a.m. to 5:00 p.m.</td>
<td><strong>Registration and room check-in</strong> for Certified Welding Instructor (CWI) and Canadian Welding Bureau (CWB) course participants as they arrive at <strong>University of Michigan — West Quad, Cambridge House</strong></td>
</tr>
<tr>
<td><strong>TUESDAY, JULY 9, 2019</strong></td>
<td>8:00 a.m. to 5:00 p.m.</td>
<td><strong>CWI and CWB courses</strong> at <strong>University of Michigan Trotter Multicultural Center</strong></td>
</tr>
<tr>
<td><strong>WEDNESDAY, JULY 10, 2019</strong></td>
<td>8:00 a.m. to 5:00 p.m.</td>
<td><strong>CWI and CWB courses</strong> at <strong>University of Michigan Trotter Multicultural Center</strong></td>
</tr>
<tr>
<td><strong>THURSDAY, JULY 11, 2019</strong></td>
<td>8:00 a.m. to 5:00 p.m.</td>
<td><strong>CWI and CWB courses</strong> at <strong>University of Michigan Trotter Multicultural Center</strong></td>
</tr>
<tr>
<td><strong>FRIDAY, JULY 12, 2019</strong></td>
<td>8:00 a.m. to 5:00 p.m.</td>
<td><strong>CWI and CWB courses</strong> at <strong>University of Michigan Trotter Multicultural Center</strong></td>
</tr>
<tr>
<td><strong>SATURDAY, JULY 13, 2019</strong></td>
<td>9:00 a.m. to 5:00 p.m.</td>
<td><strong>Registration and room check-in</strong> for all participants at the <strong>University of Michigan</strong> (see U of M map in this catalog)</td>
</tr>
<tr>
<td></td>
<td>8:00 a.m. to 5:00 p.m.</td>
<td><strong>CWI and CWB courses</strong> at <strong>University of Michigan Trotter Multicultural Center</strong></td>
</tr>
<tr>
<td><strong>SUNDAY, JULY 14, 2019</strong></td>
<td>8:00 a.m. to 4:00 p.m.</td>
<td><strong>Registration and room check-in</strong> for all participants at the <strong>University of Michigan</strong> (see U of M map in this catalog)</td>
</tr>
<tr>
<td></td>
<td>4:45 p.m.</td>
<td><strong>Group Photograph</strong> in <strong>Ann Arbor Marriott Ypsilanti at Eagle Crest</strong> (1275 S Huron St, Ypsilanti, MI (734) 487-2000). Busses depart U of M at 4:00 p.m.</td>
</tr>
<tr>
<td></td>
<td>5:00 p.m.</td>
<td><strong>Opening General Session</strong> including dinner at the <strong>Ann Arbor Marriott Ypsilanti at Eagle Crest</strong> (1275 S Huron St, Ypsilanti, MI (734) 487-2000), required for all participants</td>
</tr>
<tr>
<td><strong>MONDAY, JULY 15, 2019</strong></td>
<td>6:30 a.m. to 7:45 a.m.</td>
<td><strong>Breakfast</strong> served at <strong>Washtenaw Community College</strong> (see the WCC map in this catalog)</td>
</tr>
<tr>
<td></td>
<td>8:00 a.m. to 5:00 p.m.</td>
<td><strong>CWI and CWB courses</strong> at <strong>University of Michigan Trotter Multicultural Center</strong></td>
</tr>
<tr>
<td></td>
<td>8:00 a.m. to 5:00 p.m.</td>
<td><strong>Courses</strong> begin at <strong>Washtenaw Community College</strong></td>
</tr>
<tr>
<td><strong>TUESDAY, JULY 16, 2019</strong></td>
<td>6:30 a.m. to 7:45 a.m.</td>
<td><strong>Breakfast</strong> served at <strong>Washtenaw Community College</strong></td>
</tr>
<tr>
<td></td>
<td>8:00 a.m. to 5:00 p.m.</td>
<td><strong>CWI and CWB courses</strong> at <strong>University of Michigan Trotter Multicultural Center</strong></td>
</tr>
<tr>
<td></td>
<td>8:00 a.m. to 5:00 p.m.</td>
<td><strong>Courses</strong> continue at <strong>Washtenaw Community College</strong></td>
</tr>
<tr>
<td></td>
<td>5:00 p.m.</td>
<td><strong>Klein Tool BBQ</strong> at <strong>Washtenaw Community College in the Morris Lawrence Building</strong></td>
</tr>
</tbody>
</table>
CALENDAR OF EVENTS

WEDNESDAY, JULY 17, 2019

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 and CWB 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.  Vendor Demonstrations and dinner in the Pavilion at Washtenaw Community College

THURSDAY, JULY 18, 2019

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 and CWB 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.  Awards Session and dinner at Washtenaw Community College in the Morris Lawrence Building

FRIDAY, JULY 19, 2019

6:30 a.m. to 7:45 a.m.  Breakfast served at Washtenaw Community College

7:00 a.m. to 5:00 p.m.  CWI and CWB examinations at University of Michigan Trotter Multicultural Center

8:00 a.m. to 5:00 p.m.  Courses continue at Washtenaw Community College

SATURDAY, JULY 20, 2019

5:00 a.m.  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 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!

SUNDAY, JULY 14: 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.

2018 QUALIFIED INSTRUCTORS LIST

<table>
<thead>
<tr>
<th>FIRST NAME</th>
<th>LAST NAME</th>
<th>LOCAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kirk</td>
<td>Bearden</td>
<td>29</td>
</tr>
<tr>
<td>Richard</td>
<td>Blair, Jr.</td>
<td>568</td>
</tr>
<tr>
<td>Jeffrey</td>
<td>Boone</td>
<td>15</td>
</tr>
<tr>
<td>James</td>
<td>Cordova</td>
<td>24</td>
</tr>
<tr>
<td>Victor</td>
<td>Franco</td>
<td>846</td>
</tr>
<tr>
<td>Brad</td>
<td>Gasaway</td>
<td>118</td>
</tr>
<tr>
<td>Timothy</td>
<td>Hall</td>
<td>9</td>
</tr>
<tr>
<td>Bradly</td>
<td>Huth</td>
<td>416</td>
</tr>
<tr>
<td>James</td>
<td>Hyden</td>
<td>44</td>
</tr>
<tr>
<td>Eric</td>
<td>McBride</td>
<td>6</td>
</tr>
<tr>
<td>Michael</td>
<td>Minter</td>
<td>387</td>
</tr>
<tr>
<td>William</td>
<td>Nutter</td>
<td>86</td>
</tr>
<tr>
<td>Daniel</td>
<td>O’Donnell</td>
<td>136</td>
</tr>
<tr>
<td>Scott</td>
<td>Papineau</td>
<td>720</td>
</tr>
<tr>
<td>Edmundo</td>
<td>Rangel</td>
<td>847</td>
</tr>
<tr>
<td>James</td>
<td>Shoemaker</td>
<td>66</td>
</tr>
<tr>
<td>Stuart</td>
<td>Stovel</td>
<td>765</td>
</tr>
<tr>
<td>Larry</td>
<td>Tyger</td>
<td>6</td>
</tr>
<tr>
<td>Linn</td>
<td>White</td>
<td>440</td>
</tr>
<tr>
<td>Kim</td>
<td>Zimmerman</td>
<td>771</td>
</tr>
</tbody>
</table>
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 are required.

INSTRUCTORS: Rich Falasca and Peter Marcyan

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 are required.

INSTRUCTORS: Rich Falasca and Peter Marcyan

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 are required.

INSTRUCTORS: Eric Lytle, Matthew Sargent, Mike Mansfield

Local Union and Apprenticeship Coordinators

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
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: Dr. Jerry Wircenski, Reis James, Chris Tobiasson

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: Dr. Jerry Wircenski, Reis James, Chris Tobiasson, Jason Corder

FUN FACT:
With a population of 114,000 (2010), Ann Arbor is Michigan’s 6th largest city.
IMPACT PROFESSIONAL DEVELOPMENT COURSES

IMPACT will be offering the following courses as part of the annual training program. For more information and to register for these courses, go to www.impact-net.org and click on the Member Programs tab, chose Contractors, click on IMPACT Construction College, and then Contractor courses. You may also call the IMPACT office at 800-545-4921

<table>
<thead>
<tr>
<th>COURSE TITLE</th>
<th>ID</th>
<th>DATE</th>
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<tbody>
<tr>
<td>Business Fundamentals Academy</td>
<td>CONT15</td>
<td>7/15–19, 2019</td>
</tr>
<tr>
<td>Getting Things Done Workshop: Mastering Personal productivity</td>
<td>CONT51</td>
<td>7/15/2019</td>
</tr>
<tr>
<td>Cash Management &amp; Change Order Control: Techniques for Getting Paid</td>
<td>CONT10</td>
<td>7/16/2019</td>
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<tr>
<td>Business Plan Development Workshop</td>
<td>CONT50</td>
<td>7/17–19, 2019</td>
</tr>
<tr>
<td>Bluebeam Revu Fundamentals &amp; Document Control &amp; Measurement</td>
<td>CONT52</td>
<td>7/18–19, 2019</td>
</tr>
<tr>
<td>Project Leadership &amp; Project Management</td>
<td>CONT6</td>
<td>7/15–16, 2019</td>
</tr>
<tr>
<td>Improving Construction Productivity</td>
<td>CONT22</td>
<td>7/17, 2019</td>
</tr>
<tr>
<td>Introduction to Lean Project Delivery &amp; Lean Project Planning</td>
<td>CONT53</td>
<td>7/18–19, 2019</td>
</tr>
</tbody>
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COMPUTER TECHNOLOGY

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

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: Jason Rafter, Scott Papineau, Michael Sampson

Fun Fact:
Find great places to eat at the Ann Arbor Convention and Visitors Bureau at www.visitannarbor.org.

Using ExamView Testing Software (CTC 6)

This 10-hour course will focus on the ExamView Assessment Suite Version 8.1 which is software apprenticeship coordinators and instructors can use for creating, administering, and scoring their own tests. Course participants will learn to use the ExamView software including how to upload test banks from the National Training Fund training packages. This is a hands-on course that takes place in a computer lab.

INSTRUCTORS: Joe Hunt, Seth Gorman
**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, LMS syncing with the ATS, accessing instructor resources on the LMS, posting messages, calendar events, running reports, and more.

**INSTRUCTORS:** Bart Collart, Joe Mulready

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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, George Facista

**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
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, DVD, 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

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, blueprints, and DVD 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: Ed Penna Jr., Brad Huth

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: Ed Penna Jr., Brad Huth
PROFESSIONAL DEVELOPMENT

Principles of Instruction (PDC 1)
This 10-hour course serves as one of two introductory courses for the Ironworker Instructors Training Program. This course provides the participant an opportunity to get up in front of the class and make a short presentation. Topics include: introducing and summarizing a classroom presentation, presenting an interactive presentation, presenting a demonstration, and questioning and reinforcement techniques. Classroom instruction will be delivered primarily through interactive presentations and small-group activities. (Note: This course is mandatory for first-year participants.)

INSTRUCTORS: Kelley Gottschang, Randy Van Wagnen

Instructional Planning (PDC 2)
This 10-hour course is critical to the effective training of apprentices and serves as the second of two introductory courses for the Ironworker Instructors Training Program. During this course, participants will learn how to plan and conduct courses within the local union’s curriculum. In addition they will learn how to develop a course syllabus, write learning objectives, plan for teaching the classroom and shop components of a course, use Ironworker training packages, and use basic audio-visuals (e.g. flipcharts and computer projectors). Participants will also learn how to administer tests, record test results, how to complete a grade book, and how to determine if an apprentice has passed a course. (Note: This course is mandatory for first-year participants.)

INSTRUCTORS: Randy Van Wagnen

Testing and Evaluation Strategies (PDC 3)
This 10-hour course in testing will assist instructors in developing and administering knowledge and skill tests. Participants will learn to plan for developing tests and then administering tests using multiple-choice, true-false, matching, and completion test items. Participants will also learn to administer and score performance or skill tests.

INSTRUCTOR: Mandolen Mull, Jon Musgrave

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, Jon Musgrave
Illustrated Presentations and Technical Demonstrations (PDC 6)

This 10-hour advanced course focuses on the development of the classroom skills for experienced instructors. Classroom instruction will be delivered primarily through PowerPoint presentations and teaching demonstrations. Students must first complete PDC 1 & PDC 2 before taking this course. Students should have three or more years of classroom teaching experience prior to entering the course. Students must bring (hard and electronic) copies of materials appropriate to deliver a presentation in their area of expertise (e.g., reference manual and instructor guide for a course they will teach). Students will prepare and deliver one or more presentations as a part of 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

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

Approved MSHA Instructor Course (STC 2)

This 20-hour course will provide the participants with a detailed presentation of the Federal Mine Safety & Health Administration’s (MSHA) training requirements (CFR Title 30, Part 46, and Part 48) for personnel employed at mine facilities. The training materials developed by the National Fund and MSHA have been updated and reorganized to be more user-friendly, and include an overview of a surface mine operation (hazards, transportation, blasting, etc.). Classroom instruction will be delivered primarily through PowerPoint presentations. Participants will receive an electronic copy of all MSHA course administrative documents, course outlines, syllabi, training presentations, and a list of required videos. Upon completion of the course, the participant’s name will be submitted to the Department of Labor for approval as an instructor of Surface or Underground Mine Training.

Prerequisites: Minimum one (1) year of construction experience within the last three (3) years. Resume detailing experience as an instructor and experience working on construction or mine sites. Current Red Cross (or equivalent) First Aid and CPR certifications documenting a minimum of 8 hours training, and an OSHA 500 Instructor card. Documentation must be submitted by Thursday, June 28th, 2018 to Elizabeth Harvey at eharvey@iwintl.org. Anyone who plans on attending this course MUST PRE-QUALIFY as stated above or they will not be eligible to attend. THERE WILL BE NO EXCEPTIONS!

INSTRUCTORS: Joe Hunt III, Troy Scoggins

SPECIAL DEVELOPMENT

Teaching the 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 to teach on construction management issues 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, Larry Gilbertson

Layout Instruments for Ironworkers Trainer (SDC3)

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 and DVD. Each participant will receive a training package and DVD. 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: David Richardson, Steven Neveu

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 CD 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 9 – Facilitation Skills for Ironworkers.

INSTRUCTORS: Reis James, Chris Tobiasson

Mathematics for Ironworkers  (SDC 11)
This 10-hour course is designed to provide the participant with techniques and strategies to teach basic numerical processes including whole numbers, common and decimal fractions, percentages, averages, exponents, roots, ratios and proportions, linear, area, circular and volume measurements and their Ironworker applications. The course will also include an introduction to geometry and trigonometry and their Ironworker applications. The focus of this course is working math problems. Participants MUST bring a SCIENTIFIC calculator for use during this course. These calculators are relatively inexpensive. Participants will receive a set of the “Mathematics for Ironworkers” materials they can use to teach math at their local union.

INSTRUCTOR: Joe Hunt III

Foreman Training for Ironworkers  (SDC 13)
This 20-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, maintain labor-management relations, plan and schedule work, implement a safety program, and ensure the quality of work. Participants will receive a set of the Foreman Training materials (reference manual, instructor guide, CD-ROM) so that they can conduct this course for apprentices and journeymen.

INSTRUCTORS: Clint Knowlton, Joe Werbek
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: Jason Corder, Norm Richerson

Politics and Civic Participation (SDC 16)

Numerous political issues have direct impact on the economic situation of Ironworkers. Government negotiated project labor agreements, prevailing wage laws, and infrastructure funding are some of the more obvious examples. The need for Ironworkers to be informed and engaged in the political arena is absolutely necessary to protecting a secure quality of life. This 10-hour course will provide a comprehensive look at the key issues affecting Ironworkers, techniques for engaging members in politics, and technological tools available to local unions for mobilizing the membership. Participants will receive copies of the Political Activist Guide and a training manual to use in conducting training at their local unions.

INSTRUCTOR: Ross Templeton

Advanced Layout and Total Station Training (SDC19)

This 40-hour course is designed to prepare instructors to use drawings and apply principles of trigonometry and the Cartesian coordinate system to program and operate a total station. Participants must be competent at reading drawings, doing layout work using an auto level and theodolite, and be able to apply the principles of trigonometry to construction layout. Participants will receive a copy of the new Advanced Layout and Total Station Training for Ironworkers training package so that they can teach this important course at their training center. Participants must bring a Construction Master Pro Trig calculator (Model 4080 V3.1) available from Calculated Industries (ordering information is posted under the math and layout sections of our bookstore.

Prerequisites: Participants MUST Prequalify by Contacting Elizabeth Harvey (202) 383-4809. Qualifications include having taken Operating Layout Instruments (SDC3) or experienced in layout, and MUST completion self-study of Mathematics for Ironworkers course including passing online unit assessments which must be completed prior to June 1, 2019. The first 20 to complete the math assessments will be enrolled in the class.

INSTRUCTORS: Gene Matthews with Jim Hattori, Matt Frolich, Jeff Gerber, Keith Lantz (Leica Geosystems, Inc.)
Superintendent Training for Ironworkers (SDC20)

This 20-hour Superintendent Training for Ironworkers train-the-trainer course is designed to develop local union instructors who can conduct this course. During this blended learning course (combination of self-study, online exercises, and group-based training) the participants will learn the roles and responsibilities of the superintendent as well as how to manage project schedules, information, people, the job site and safety. Participants will also learn communication skills, how to close out a project, and basic construction finance and law. Participants will also learn how to conduct this course at the local level.

Prerequisites: Previous experience as a general foreman or superintendent, completion of or experience with teaching the Foreman Training course, and completion of the Level 1 Superintendent Training online course prior to the end of June (participants will register for the online component through their Apprenticeship Coordinator using the Apprentice Tracking System).

INSTRUCTORS: Joe Werbeck, Clint Knowlton and Wayne Worrall

Bidding and Contractor Competitiveness (SDC21)

This 10-hour course is designed to provide an eye opening experience regarding contractor competitiveness for their apprentices. Participants will learn to teach their apprentices the basics of how to estimate and then bid a project. This course will also focus on how to add in all of the hidden costs that most apprentices do not realize that contractors must deal with. Learn about the factors that impact making a profit and find out how much profit your contractor is really making. Course participants will receive a set of materials they can use to conduct an interactive, small-group, 4-hour estimating and bidding orientation for their apprentices.

INSTRUCTORS: Seth Gorman, Norm Richerson
STRUCTURAL

Metal Buildings  (STR 7)

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. Classroom instruction will include presentations from the training package DVD. Work clothes are required for the hands-on portion of this course.

INSTRUCTORS: Mike Mansfield, Matt Sargent

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 the NCI Group Inc., 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 are required for this class. Work clothes are required for this class.

INSTRUCTORS: Mike Mansfield, Matt Sargent

Structural Steel Erection  (STR 9)

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 will be required on that day.

INSTRUCTORS: Bryan Brady, Wayne Worrall
Precast Concrete Erection for Ironworkers (STR11)

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: Seth Gorman and Pascal Kateme

Plumbing, Aligning, and Fastening Structural Steel (STR 4)

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

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 are required.

INSTRUCTORS: Bryan Brady, Wayne Worrall
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 work attire (including long sleeve shirts).

INSTRUCTORS: Lincoln Electric—Charlie La Riche, Ben Bradbury

National Welder Certification Program of North America (WEL 2A)

This 20-hour course, taught by representatives of the Miller Electric Manufacturing Company, the Hobart Institute of Welding Technology, along with representatives of the Iron Workers National Fund, will update participants on technological changes in the welding industry. Using Miller and Smith Equipment, the participants will have the opportunity to test and inspect various National SMAW, FCAW, and GTAW welding procedures on plate and pipe. Upon successful completion of each test, the participant will receive a corresponding National Welder Certificate and identification card. GTAW and GMAW-P will be introduced on miscellaneous metals. Participants who are certified welders will learn advanced inverter technology, troubleshooting welding equipment and systems, and multi-process use of newer equipment. Instruction will be delivered primarily through PowerPoint presentations and hands-on training. Participants must wear appropriate work clothes (including long sleeve shirts).

INSTRUCTORS: Miller Electric—Robert Fox, Matt Goelzer, Michael Blakeman, Brian Garrett, Mike Peterson, Brian Murray, Todd Foreman

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 2010 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 examination to the participants on the final day of class. 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:** Ed Bohnart, CWI, James Greer SCWI

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**Certified Welding Inspector Course for Recertification (WEL 4B)**

This review course is designed to prepare previously certified welding participants 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:** Ed Bohnart, CWI, James Greer SCWI

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**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 work clothes (including long sleeve shirts).**

**INSTRUCTORS:** Lincoln Electric—Karl Hoes, Alex Tocco

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**Advanced Welding Technologies (WEL14)**

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 work attire (including long sleeve shirts).**

**INSTRUCTORS:** Lincoln Electric—Dan Klingman, Charlie La Riche, Ben Bradbury
Stainless Steel Welding and Certification (WEL10)
This 20-hour course is designed to provide updates in Stainless Steel welding along with proper techniques to ensure sound welds using SMAW and FCAW processes. This course will be taught by representatives from Miller Electric Mfg. Co., Hobart Brothers and the Iron Workers National Fund who hold CWI and CWE certifications from the American Welding Society. Participants will be given the opportunity to test to various SMAW and FCAW welding procedures. Upon successful completion of each test, participants will receive a corresponding certificate and identification card from the Ironworker’s National Welding Certification Program. Participants who are certified welders will learn advanced inverter technology, troubleshooting tips and techniques for welding stainless steel. The course will include classroom instruction and hands-on training. Participants must wear appropriate work clothes for hands-on welding (including long sleeve shirts).

INSTRUCTORS: Miller Electric: Robert Fox, Matt Goelzer, Michael Blakeman, Chris Monroe, Brian Garrett, Mike Peterson, Brian Murray, Todd Foreman

CWB Inspector Level 1 Course (WEL11)
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

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
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 and supporting CD-ROM’s. 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.

INSTRUCTORS: ESAB: Jack Minser, Robert Shigley, Kevin Showers
ACKNOWLEDGEMENTS

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

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• ANN ARBOR AREA CONVENTION & VISITORS BUREAU
• APPLIED BOLTING TECHNOLOGY
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• SKIDMORE-WILHEM MANUFACTURING COMPANY
• SNAP ON INC
• UNIVERSITY OF MICHIGAN
• WASHTENAW COMMUNITY COLLEGE
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

ROBERT J. BASS has been a member of Local Union #1, Chicago, Illinois, since 1985, and completed his apprenticeship in 1988. Bob works 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 a certified Haz/Mat, lead, OSHA 500, Subpart R, MSHA, mono-strand post-tensioning, and CROSBY instructor, as well as being the structural steel instructor for 9 years.

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, blueprint 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.

ED BOHNART is a sole proprietor of Welding Education and consulting, a firm that designs and conducts customized training and consulting programs for the welding industry. He graduated from the Nebraska Vocational Technical College in welding and metallurgy. He is an American Welding Society Senior Certified Welding Inspector. He has served on the Board of Directors for AWS for over a decade and also as the National President in 1995-1996. Ed chaired the AWS C5 committee on Arc Welding and Cutting Processes and served on the Certification, Education, Technical Activities Committees, Past Presidents Committee, Headquarter Housing Committee, C5, CSC, D16 and the WEMCO Image Task Group, and is past chairman of the AWS Skills Competition Committee. The American Welding Society has recognized Ed as Counselor (class of 2011), also with the National Meritorious Award, George E. Willis Award, Plummer Memorial Educational Lecture Award and designated him as a Distinguished Member. Ed has been active with the AWS Fox Valley Section in various capacities.

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 started working at Lincoln Electric in 2012 in the consumable R&D lab. He worked in R&D as the Lead Welder (welding in most processes) 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 while learning the other classes from the other instructors.
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 37 year member of Local424(NewHaven, 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 Program. Bart started as a journeyman in 1984. In his various roles at Local 580 Ornamental Iron Worker since 1981. He has worked on many large ornamental projects in New York City as a foreman. Bart is currently serving as a business agent.

GEORGE FACISTA  became a member of Local #75, Phoenix, AZ in 1978 as an apprentice. He worked in all aspects of the trade as a Foreman, General Foreman, and as a Safety Representative. George started as apprenticeship instructor in 1997 and assumed the role of Apprenticeship Coordinator in 2005. He became Apprenticeship Supervisor in 2009. George attained his associate degree in Ironworking in 1996 and his bachelor’s degree in Labor Safety and Education from the National Labor College in 2001. He received his Qualified Ironworker Instructor certificate in 2005 and his CWI in 2006.
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 works as a welding engineer with Hobart Brothers Company, a manufacturer of welding filler metals. For the past 5 years, Robert has provided welding technical support requiring cooperation with customers to optimize the performance, properties, and cost of welding applications. He is involved with several technical committees pertaining to welding filler metals including serving as a member on the AWS A5 subcommittee. Robert is an alumnus of the Ferris State University Welding Engineering Technology program (class of 2012).

MATT FROHLICH joined Leica Geosystems in 2010 as the Building Construction Support and Training Engineer. Prior to working for Leica, he was the GPS and Total Station Program Manager at Coffman Specialties and the Support Manager at Empire CAT. During his tenure at Coffman Specialties, he helped the company build 3D Models, integrate these models into their everyday workflow and support the staff. He is a graduate of Clemson University, where he majored in Civil Engineering. He currently lives in Charleston SC. When he is not keeping busy with assisting people, he can be found on the golf course.

BRIAN GARRETT began his Ironworking career in 1992 with Local 10 in Kansas City and became a journeyman in 1996. Brian has worked in all areas of the trade and became a full time instructor in 2006. In the fall of 2013, he was appointed to the position of Director of Training. Brian has been a CWI/CWE since 2007 and currently conducts ATF audits for the National Safety Fund. He also serves as President of his local, President of the Kansas City Apprenticeship Coordinators Council, The Kansas City Workforce Investment Board, and is on the Co-Chair for the National Skills USA Welding Contest.

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 CD-ROMs, DVDs, printers, cameras, and digital projectors.

JEFF GERBER began his surveying career nearly 20 years ago, fresh out of high school with a major contractor in Edmonton, Alberta. He earned a Journeyman Carpenter certificate from the Northern Alberta Institute of Technology. As Head Surveyor for Clark Builders, Jeff helped build many warehouses, schools, pools and parkades. Since joining Leica Geosystems’ Technical Support and Training, Jeff now helps dealers and end users to utilize the iCon product line for their construction needs.

LARRY GILBERTSON is currently the Training Director for the Ironworkers Local 512 in St. Paul, Minnesota. Larry began working iron in 1985 and graduated to journeyman in 1988. He worked as steward, journeyman, foreman, and general foreman, mainly on structural and welding jobs. Larry began instructing apprentices in 2006, became Coordinator in 2008, and was promoted to Training Director in 2011. Larry earned his CWI and CWE in 2008 and is also qualified to teach OSHA, Red Cross FA/CPR, and is a Practical Examiner for NCCCO. Before he began his ironworking career, Brother Gilbertson proudly served as a paratrooper with the 82d Airborne Division of the US Army.

MATT GOELZER is currently a Technical Product 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...
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.

Seth Gorman was initiated as an apprentice of Local #89 in March of 1998 and graduated in 2001. In 2002 he became a welding instructor and in 2007 became a Certified Welding Inspector. In 2009 Seth was appointed as the Local #89 Apprenticeship Coordinator. In 2011 he was appointed to the Iowa Workers Compensation Advisory Committee. In 2013 Seth took over as lead person for the Cedar Rapids Building Trades Coordinators Group. Seth is an active member in many Joint Trust Committees.

Judy Price began teaching for over ten years as full time faculty at Washtenaw Community College. She teaches interface and interaction design. Kelley specializes in curriculum and program development. Kelley holds a bachelor’s degree in Anthropology and a master’s degree in Graphic Design and has been a practicing designer for over 20 years. Kelley’s work focuses on new media and its cultural implications. She has taught trade union education since 2001.

James Greer is a full Professor/Lead Hands on Instructor and Welding Program Coordinator at Moraine Valley Community College where he has taught for more than 30 years. He graduated from Chicago State University with a Master’s Degree in Education. Jim is a former President of AWS (2004–2005) who has received the National Meritorious Award, District Howard Adkins Educator's Award, and AWS’ highest educational honor, the Fred L. Plummer Educational Lecturer Award. Jim is presently an AWS senior instructor for the Certified Welding Inspector program.

Jim Hattori began his surveying career over 30 years ago while still in high school. After attending the University of Wisconsin-La Crosse, Jim held positions with a number of prominent surveying and engineering firms, including Kapur and Associates, HNTB Corp. and Bonestroo, Rosene, Anderlik and Associates. As the Eastern Region Construction Positioning Sales Manager for Leica Geosystems, Jim works closely with both dealers and end users, helping them learn about technology innovations and find ways to work more efficiently.

Reis James started Ironworking 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 required to excel in the Ironworking trade. In 1991 pursuing his calling as an Evangelical Minister, he sharpened his speaking and organizational skills conducting overseas crusades in 14 countries, addressing audiences up to 40,000 people in a single event. In 2002, Reis returned to the Ironworking trade in Local 397.
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.

DAN KLINGMAN began his career at Lincoln Electric in 1994. Since that time he has worked as a production welder, robotic operator, application technician, and robotic technologist. Currently 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. Dan is also an active member of the National Skills USA Welding Technical Committee and has been a trackside welder at the Indianapolis 500 since 2005. Dan is a AWS/CWI/CWE.

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.

KEITH D LANTZ has 30 Years of experience in the surveying and construction measurement and positioning industry in a technical sales capacity. Beginning at a Lietz (now SOKKIA), WILD (now Leica) and Autocad (now Autodesk) dealer in Denver selling high end survey equipment and CAD software. He moved on to manage the SOKKIA Measuring Systems operation in Denver and then took over the Denver branch of Topcon America. At that time, that store was the only Topcon branch that carried both Surveying and Machine Control products. He began his career at Leica in 1999 as Western Regional Sales Manager for Construction Laser including the Disto product line. Actively involved in developing new applications and workflows for the hand held laser market in the western US. With the inception of the iCON construction product line of robotic total stations and GPS, he took over the sales management for the Western region of the US. A major part of their role in the Construction Positioning Division, is to help develop new applications for the tools and working closely with the trade unions to educate a new generation of tradespeople in the latest technology in construction workflows.

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.

ERIC M. LYTLE Has over 41 years of experience in the construction industry with emphasis on project management, estimating, value engineering, design-build, and fast-track projects and construction product manufacturing. He currently is the Director of CENTRIA Construction Support Services (CCSS). CCSS provides training, field support for their 100 plus installers, forensic services quality assessments and bid review. Previous to this position he was the director of CENTRIA Building Envelope solutions (CBES).
The CBES's provide project management and detailing service for the production and delivery of their wall and curtainwall systems for select Subcontractor/Installers in the construction market place. They provide services throughout the 50 States and Canada. Throughout his extensive career he was also Development Manager for Strategic Consulting, LLC, this organization has provided program management and development services for major retail chains, the hospitality service industry and the health care industry, he started Lytle Construction Services, was Executive Vice President at P.J. Dick Inc. Actively involved in the development of corporate marketing strategies and business plans, as well as developing and maintaining client relationships.

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.

EUGENE MATTHEWS has been a member of Local 580 since 1981. He has worked as a journeyman, foreman, general foreman, and superintendent in all aspects of the ornamental field. In 2000, he became an instructor in the Local 580 apprenticeship program. Gene teaches layout, instruments, math, and blueprints. He also teaches numerous journeyman upgrading courses. He became a Certified Welding Inspector (CWI) in 2005. He is currently working as a general foreman for a curtain wall installer.

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.

JACK MINSER Product Brand Manager for ESAB Welding and Cutting Equipment with over 35 years experience in the area of gas apparatus, design, marketing, sales and safety training on torches, and regulators. With a focus on the safe use of equipment and how to avoid problems and protect yourself, Jack has conducted numerous training sessions at all types of industries that use the equipment. Jack has been involved in numerous applications using cutting torches on thicknesses ranging from 1/4” up to and including 50” thick of steel cutting. He has spent several years involved with plasma arc cutting, demonstrating and recommending the correct machines for the application.
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.

MANDOLEN MULL is a faculty member at Tarleton State University and the McLane School of Business at the University of Mary Hardin-Baylor, teaching courses in leadership, statistics, and international business. Possessing an extensive background in leadership performance, Mandolen consults with organizations nationwide, providing analysis and interventions targeted to improve organizational performance outcomes.

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 apprentice 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.

BRIAN MURRAY began his apprenticeship with Iron Workers’ Local No. 17, Cleveland, Ohio in 1990. He has worked as a Journeyman, Foreman, General Foreman and Steward in all aspects of the trade. Brian has held many officer positions with Local No. 17 to include Trustee, Executive Board, and is currently their Recording Secretary. Brian achieved his CWI and CWE in 2013 and is also an OSHA 500 trainer. Brian became an Apprenticeship Instructor in 2012 and received his Qualified Ironworker Instructor Certificate in 2015 and is currently the Apprenticeship Coordinator at Local No. 17.

STEVEN NEVEU was born in Toronto, Ontario and has lived throughout Southern Ontario with his two parents, younger brother and sister. He grew up in a strong Union family where his father was a crane operator with the Operating Engineers Local 793. Steven graduated from the University of Toronto with a 4-year Honors BA in 1996. He has enjoyed golfing and competitive bass fishing from an early age. He began his Ironworker career as an apprentice and graduated in 2004 and was recognized as the Outstanding Apprentice for that year. During his career he has worked as a Journeyman Red Seal Ironworker, Foreman and General Foremen and worked in many facets of the Ironworker trade. He was a CWB certified welder with welding Supervisor training that worked for a variety of contractors including Alberici, Babcock & Wilcox, State Group and Toronto District School Board to name a few. His involvement with Local 721 included Trustee, Scholarship Committee, Labour Day Parade Committee and always assisted with the Apprenticeship Competitions as a judge and grill master. Steven became an Ontario District Council Organizer working for the International in August of 2014.

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.

ED PENNA, JR. became an apprentice member of Local 405, Philadelphia, PA. in 2004. After completing his apprenticeship he worked as a reinforcing ironworker and rigger as both a journeymen and foreman. Ed became an apprentice instructor in 2007 and is currently a NCCCO Certified Instructor for Crane Signaling and Rigging. In 2015, Ed was hired as an Organizer for the Philadelphia District Council.
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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 300, 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.

DAVID RICHARDSON Started his Ironworkers Career as a Second-Generation Ironworker for Local 290 in Dayton Ohio, where his father Jack Richardson had been a member/President. After graduating apprenticeship school, David worked in the field in all aspects of Ironwork as a journeyman, foreman, and general foreman. David also performed union Steward and safety facilitator duties and obtained several safety certifications. This experience helped him become a certified volunteer Firefighter for his community. He worked for the Southern Ohio District Council as a District Council Organizer, in 2013 he went on staff as an International District Council Organizer which lead to a promotion as a Lead Organizer. He was then promoted to his current position as Campaign Coordinator for the Ironworkers International Organizing Department. During his career path with the Ironworkers Union he had the privilege to attend several training courses and expand his knowledge to help assist our Union to grow into the future.

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.

MICHAEL SAMPSON began his apprenticeship in 1992 at L.U. #207 Youngstown, Ohio. Michael started teaching welding at the apprenticeship school in 1996. He received an Associates of Industrial Trades from Kent State University in 1997. In 1998 Michael became an OSHA Outreach Instructor, and in 1999 he received his CWI/CWE. In 2008 Michael received his Qualified Ironworker Instructor Certificate, and he also became the Apprentice Coordinator. Michael has served Local #207 as a trustee, e-board member and political director. Michael was appointed to the position of Training Specialist assigned to the National Training Fund in 2013. Michael is currently pursuing his Bachelor's Degree.
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.

MATTHEW SARGENT started his ironworking career in 1992 with Local #207 in Youngstown, Ohio. In 1995 Matthew was named outstanding apprentice for his District Council and competed at the international level in Vancouver, British Columbia. Matthew has worked many facets and levels of the ironworking trade. Matthew holds certifications for OSHA 500, Crosby, J.L.G., and many welding processes. In 2012 Matthew met the requirements for his C.W.I./C.W.E. Matthew has been elected as a trustee, is an E-Board member, and also serves on the J.A.T.C.

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.

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 and also earned his Associates Degree of Applied Science in Apprenticeship Technology from Ivy Tech Community College. Chris started teaching as an instructor with the apprenticeship in 2008. In 2010 Chris became Apprentice Coordinator and earned his CWI certification. He is also a First Aid/CPR Instructor/ Trainer, and OSHA 500 Instructor. Chris is currently President and Training Director of Ironworkers Local 387.

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 Northwestern University, Evanston, IL. For the past nine years he has worked as a classroom teacher at El Capitan High School in Lakeside, California. Jay has also worked many years with the Annual Ironworker Training Program in San Diego, California. Jay currently serves as a site representative and as the Organizing Committee Chairman in his union, the Grossmont Education Association.
RANDY VAN WAGenen has been teaching at Washtenaw Community College for over a decade. He teaches 3d animation, specializing in character creation and hard surface modeling. He holds degrees in Telecommunications and 3d Animation and has been animating professionally for more than two decades.

JOE WERBECK started his career started 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 foremen, 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.

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 Inter-Provincial (Red Seal) Standard/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. Throughout his career with 771, Wayne has served the Local on several levels: Examination Committee, Executive Board, Vice-President and currently holds the positions of President/Business Agent/Trade Coordinator of the Local as well as being Chairman of the Iron Worker Trade Board for Saskatchewan.

DR. JERRY WIRCENSKI is a professor at the University of North Texas. He has been an instructor for the annual Ironworker Instructors Training Program since its inception in 1985. In addition, Dr. Wircenski is involved in the Foreman Training Program, and has assisted the National Fund in the revision of much of the ironworking curriculum.

DICK ZAMPA, JR. became a member of Local Union # 378, Oakland, California, in 1973. He completed his apprenticeship in 1976, and held positions of journeyman ironworker and foreman since that time. Dick became an apprentice and journeyman instructor in 1983 and teaching assignments included Welding, First aid / CPR, Haz Mat, Lead, MSHA and COMET courses. In 1995 Dick was hired as apprenticeship coordinator for local #378, and earned a bachelor degree from National Labor College in 2001. In 2005, he was hired as Director of Apprenticeship for the California and Vicinity District Council.
INTERNATIONAL ASSOCIATION OF BRIDGE, STRUCTURAL, ORNAMENTAL AND REINFORCING IRON WORKERS

UNIVERSITY OF MICHIGAN CENTRAL CAMPUS

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

Parking Garage

UNIVERSITY OF MICHIGAN CENTRAL CAMPUS
4800 East Huron River Drive
Washtenaw Community College
Ann Arbor, MI 48105-4800

JULY 2019 PROGRAM CATALOG

WASHTENAW COMMUNITY COLLEGE

INTERNATIONAL ASSOCIATION OF BRIDGE, STRUCTURAL, ORNAMENTAL AND REINFORCING IRON WORKERS

BUS DROP-OFF AND PICK-UP POINT

PARK IN LOTS 1, 2, 3 OR 4

BREAKFAST & LUNCH DAILY AND THE THURSDAY EVENING AWARDS SESSION IN THE MORRIS LAWRENCE BUILDING

IRONWORKER OFFICE IN MORRIS LAWRENCE (ML) ROOM 130
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