2022

Welding Technology & Training Center

Course Catalog

Make Your Mark in Welding
With a Hand from Lincoln Electric

Founded in 1895, Lincoln Electric has been a leader and innovator in the design and production of arc welding equipment and consumables since the beginning of the welding industry. Headquartered in Cleveland, Ohio, we are also a worldwide leader in robotic arc welding systems as well as plasma and oxyfuel cutting equipment.

With over a century of leadership in welding education, our education team is committed to your career success.

- The Lincoln Electric Welding Technology & Training Center is a world-class training facility for welders and those who train welders, filled with the latest in booth and classroom equipment and practices.
- Our expert instructors are trained to instruct you on the science as well as the practice of welding, so that you understand why you perform a particular weld as well as how best to do it.
- Our Comprehensive program covers every major arc welding process and material type as well as oxyfuel and plasma cutting, preparing you to tackle a number of welding certifications.
- Our programs extend to seminars and workshops for the professional development of various roles in the the welding community.
- Custom Training is available to any company's production team to learn more about new technologies, equipment or master a weld for qualification.

Join the elite welders that pass through our training programs each year, prepared to face the challenges of the welding and fabrication industry.

Prices, policies and dates listed in this guide are subject to change. Please check current prices and class dates at: http://classes.lincolnelectric.com

Full Line of Equipment, Consumables and Accessories

www.lincolnelectric.com

Welding Products
Lincoln Electric is the world leading manufacturer of arc welding equipment, consumables and accessories for stick, TIG, MIG, flux cored and submerged arc welding, as well as oxyfuel and plasma cutting. We manufacture a full line of products for welding schools, light to heavy duty metal fabricators, maintenance shops, home use and more. Lincoln Electric's product line includes:

- Welding equipment
- Welding consumables
- Personal Protection Equipment
- Accessory equipment and parts
- Cutting equipment
- Robotics
- Fume Control Systems
- Gas apparatus by Harris Products Group®

Educational Discounts
Lincoln Electric offers educational discounts to qualified schools on qualified welding equipment and other products. The Lincoln Educational Discount is applied through sales to schools by our network of welding distributors. Contact your local Lincoln Electric Sales Office for more details.

In addition, qualified educators may purchase electrode, welding gear and tools at https://mylincoln.lincolnelectric.com.

Welding instructors and industrial trainers are also eligbile for substantial savings on 1-2 week welding process classes.

Where to Get More Details
For complete details on all Lincoln Electric welding products, see our website at **www.lincolnelectric.com** and/or request a copy of our Product Catalog (E1.10). Or contact your local Lincoln Electric Technical Sales Representative to discuss the most appropriate products for your particular school or other welding applications.

Arc Welding Safety – Materials and Products

Lincoln Electric Safety Materials - www.lincolnelectric.com/safety
At Lincoln Electric, we are committed to providing teachers and students with products, information and resources designed to ensure safety in the classroom and on the job site. These resources include:

- Welding helmets, welding safety glasses, welding gloves, welding clothing, welding gloves and other safety equipment
- Weld fume control solutions
- Welding safety video series
- Welding safety FAQs
- Arc welding safety posters, brochures, data sheets and DVDs

ANSI Z49.1 Safety Document
The American Welding Society offers a **FREE** download of the American National Standard Institutes's "Safety in Welding, Cutting, and Allied Processes" document (ANSI Z49.1:2012). This is the welding industry's comprehensive reference on safety. This document is a must for every welding school, fabricator and home hobbyist. Get your free copy today at: www.aws.org/technical/facts.

Environmental Systems for Welding Schools
Some welding applications (welding school booths, welding in confined spaces, etc.) may warrant additional safety precautions from welding fumes, such as using weld fume control equipment. Lincoln Electric offers a full line of environmental systems for schools and welding shops. Product solutions vary from single or dual arm units to multi-arm centralized fume control systems. Some of the advantages of a system by Lincoln Electric are:

- Expert technical assistance available from one company on all your welding products – equipment, consumables and fume control systems
- Follow OSHA and AWS guidelines
- Reduce energy costs by indoor recirculation vs. exhausting to outside
- Provide source capture using lightweight user-friendly arms
- Offer working lamp and arc sensor technology options
- Variable speed fans increase or decrease based on demand
- Sound-absorbing boxes and in-line duct silencer lessen noise

For More Information, Contact: Phone: 216-383-2667 · Email: weldfumecontrol@lincolnelectric.com · www.lincolnweldfumecontrol.com

Overview of Welding School

School Offering
Lincoln Electric operates the longest running welding school in the world. Founded in 1917, the school has taught over 150,000 students from the United States and abroad. Our professional staff instructors bring a wealth of knowledge and experience to every classroom and lab experience.

Lincoln Electric's Welding School offers a variety of classes, from a two day Weekend With Metal course to an advanced sixteen week Comprehensive Program, as well as one week classes on specific welding processes, certification or customized programs.
Unless indicated otherwise, courses are held 8:00 a.m. - 2:30 p.m. daily, 5 days per week and 50 weeks per year.

Students spend about 40% of their time in the classroom and 60% in the booth learning to weld. The instructor to student ratio is kept low to provide plenty of individual guidance. A large supply of steel plate is provided so students spend all their time learning to weld, not cutting and preparing practice coupons.

Benefits of Attending
- Learn welding from a proven industry leader and operator of the longest continually operating welding training program in the world.
- Train at a major hub for welding research and development at Lincoln Electric's global headquarters campus.
- Access career fairs and potential welding jobs through Lincoln Electric's career board.
- Practice on the most advanced welding equipment and the best consumables in the industry.
- Work with highly trained and qualified instructors who are committed to your success.
- Learn and practice in a safe working environment. Receive a Lincoln Electric Welding School graduation certificate upon successful graduation of the course. Combine your new welding skills with Lincoln Electric's reputation for producing quality students to improve your chances of landing a great welding job.
- All classes are conducted at the Lincoln Electric Welding Technology and Training Center unless indicated otherwise.

WELDING INSTRUCTORS


Kelly Bean


Scott Galippo


Charlie LaRiche


Bill Miller


Joe Zrnich

OFFICE STAFF

Dr. Jason Scales . . . . . Business Manager, Education
Adam Webb . . . . . Program Manager, Welding School
Keith Anderle . . . . . Student Information System Administrator
Laura Bryant . . . . . Admissions/Student Coordinator

Online Course Registration

Registration Information
Register online for all Lincoln Electric training courses, including Professional Seminars, Distributor Training Programs, Service School Courses, Robotic Training Courses, and Welding School Courses.

How To Register
Register for all courses with a few simple steps: Go to the Lincoln Electric website at www.lincolnelectric.com.

1. Click **EDUCATION** from the home page and select **TRAINING PROGRAMS**
2. Select **WELDING CLASSES & SEMINARS**
3. Select **WELDING SCHOOL, SEMINARS/ WORKSHOPS, DISTRIBUTOR TRAINING or SERVICE SCHOOL**
4. Select a course

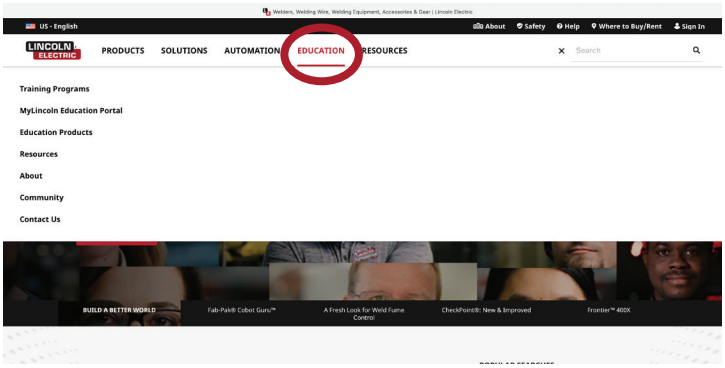
Registration and Payment Questions?
Contact the Lincoln Electric Education Team
Phone: +1 (844) 818-6038
Email: weldtraining@lincolnelectric.com

Service School Questions?
Contact Carmen Becker
Phone: +1 (216) 838-2310
Email: carmen_becker@lincolnelectric.com

International Training Questions?
Contact Customer Experience:
Email: customer_experience@lincolnelectric.com

Automation School Questions?
Phone: +1 (888) 935-3878
Class dates are subject to change or cancellation. Visit https://www.lincolnelectric.com/en/Education/Training-Programs/Corporate/Robotic-Automation-Training for current class dates.

1



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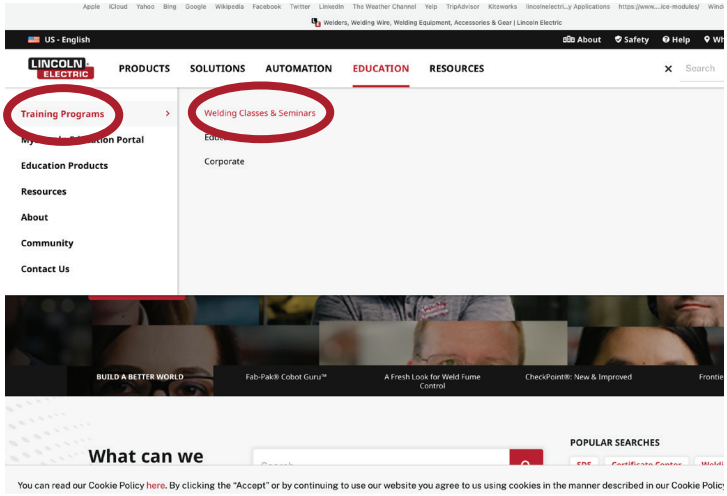

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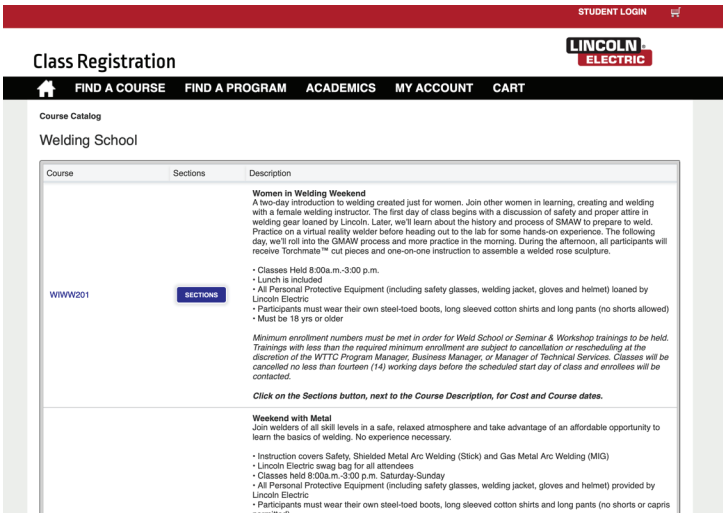

16 WEEK COMPREHENSIVE PROGRAM
Duration: Sixteen Weeks
Course Fee: $8,615.00
Registration Fee: $125.00

COMP_22_01_16W	1/31/2022	-	5/20/2022
COMP_22_02_16W	3/14/2022	-	7/1/2022
COMP_22_03_16W	5/31/2022	-	9/16/2022
COMP_22_04_16W	7/11/2022	-	10/28/2022
COMP_22_05_16W	9/26/2022	-	2/10/2023
COMP_22_06_16W	11/7/2022	-	3/24/2023

API Pipe
Code: API101
Duration: Six Weeks
Course Fee: $3,525.00
Registration Fee: $125.00

API101_22_01	1/24/2022	-	3/4/2022
API101_22_02	3/7/2022	-	4/15/2022
API101_22_03	5/23/2022	-	7/1/2022
API101_22_04	7/5/2022	-	8/12/2022
API101_22_05	9/19/2022	-	10/28/2022
API101_22_06	10/31/2022	-	12/16/2022

Advanced API Low Hydrogen Pipe Welding
Code: API301
Duration: One Week
Course Fee: $600.00
Registration Fee: $50.00

API301_22_01	4/18/2022	-	4/22/2022
API301_22_02	8/15/2022	-	8/19/2022

ASME Pipe
Code: ASME101
Duration: Six Weeks
Course Fee: $3,525.00
Registration Fee: $125.00

ASME101_22_01	1/24/2022	-	3/4/2022
ASME101_22_02	3/7/2022	-	4/15/2022
ASME101_22_03	5/23/2022	-	7/1/2022
ASME101_22_04	7/5/2022	-	8/12/2022
ASME101_22_05	9/19/2022	-	10/28/2022
ASME101_22_06	10/31/2022	-	12/16/2022

Pipe Fab Shop Training
Code: PIPE301
Duration: Four Days
Course Fee: $600.00
Registration Fee: $50.00

PIPE301_22_01	4/25/2022	-	4/28/2022
PIPE301_22_02	8/22/2022	-	8/26/2022

INTRODUCTION TO WELDING
Code: INTRO101
Duration: Five Days
Course Fee: $775.00
Registration Fee: $50.00

INTRO101_22_01	1/17/2022	-	1/21/2022
INTRO101_22_02	3/7/2022	-	3/11/2022
INTRO101_22_03	5/9/2022	-	5/13/2022
INTRO101_22_04	8/22/2022	-	8/26/2022
INTRO101_22_04	10/17/2022	-	10/21/2022

INTRODUCTION TO BASIC PLATE & SHEET METAL ARC WELDING
Code: SMAW101
Duration: Five Days
Course Fee: $740.00
Registration Fee: $50.00

SMAW101_22_01	4/4/2022	-	4/8/2022

GAS METAL ARC WELDING
Code: GMAW101
Duration: Five Days
Course Fee: $740.00
Registration Fee: $50.00

GMAW101_22_01	2/21/2022	-	2/25/2022
GMAW101_22_02	3/21/2022	-	3/25/2022
GMAW101_22_03	4/18/2022	-	4/22/2022
GMAW101_22_04	11/14/2022	-	11/18/2022

GAS TUNGSTEN ARC WELDING
Code: GTAW101
Duration: Five Days
Course Fee: $810.00
Registration Fee: $50.00

GTAW101_22_01	2/28/2022	-	3/4/2022
GTAW101_22_02	3/28/2022	-	4/1/2022
GTAW101_22_03	4/25/2022	-	4/29/2022
GTAW101_22_04	10/24/2022	-	10/28/2022

WEEKEND GAS TUNGSTEN ARC WELDING
Code: GTAW104
Duration: Two Days
Course Fee: $355.00
Registration Fee: $50.00

GTAW104_22_01	7/23/2022	-	7/24/2022

FLUX CORED ARC WELDING
Code: FCAW101
Duration: Five Days
Course Fee: $740.00
Registration Fee: $50.00

FCAW101_22_01	3/14/2022	-	3/18/2022
FCAW101_22_02	9/12/2022	-	9/16/2022

BASIC MOTORSPORTS
Code: MTRS301
Duration: Five Days
Course Fee: $1,015.00
Registration Fee: $110.00

MTRS301_22_01	1/24/2022	-	1/28/2022
MTRS301_22_02	5/23/2022	-	5/27/2022
MTRS301_22_03	10/31/2022	-	11/4/2022

ADVANCED MOTORSPORTS
Code: MTRS302
Duration: Five Days
Course Fee: $1,375.00
Registration Fee: $125.00

MTRS302_22_01	1/31/2022	-	2/4/2022
MTRS302_22_02	5/16/2022	-	5/20/2022
MTRS302_22_03	11/7/2022	-	11/11/2022

WOMEN IN WELDING WEEKEND
Code: WIWW201
Duration: Two Days (Sat/Sun)
Course Fee: $230.00

WIWW201_22_01	2/26/2022	-	2/27/2022
WIWW201_22_02	9/24/2022	-	9/25/2022

WEEKEND WITH METAL
Code: METAL101
Duration: Two Days (Sat/Sun)
Course Fee: $230.00

METAL101_22_01	4/2/2022	-	4/3/2022
METAL101_22_02	5/21/2022	-	5/22/2022
METAL101_22_03	7/9/2022	-	7/10/2022
METAL101_22_04	11/12/2022	-	11/13/2022

COMP - 16 Week Comprehensive Program

Course Description
480 Clock Hours, 16 Weeks
Designed to instruct welders in arc welding safety and all of the common welding processes. The course lasts 16 weeks and involves more than 400 hours of hands-on instruction. PPE gear ready-pak is included and provided on the first day of class.

Course Content
- Blueprint Reading & Safety Training (1 week)
- Cutting, Heat Treating, Bronzing and Oxyfuel (1 week)
- Shielded Metal Arc Welding (6 weeks)
- Gas Metal Arc Welding (3 weeks)
- Gas Tungsten Arc Welding (2 weeks)
- Flux-Cored Arc Welding (2 week)
- Certification Testing (1 week)

Duration: Sixteen Weeks
Time: 8:00 a.m. – 2:30 p.m.
Course Fee: $8,615.00
Registration Fee: $125.00

Course Dates:
COMP_22_01_16W 1/31/2022 - 5/20/2022
COMP_22_02_16W 3/14/2022 - 7/1/2022
COMP_22_03_16W 5/31/2022 - 9/16/2022
COMP_22_04_16W 7/11/2022 - 10/28/2022
COMP_22_05_16W 9/26/2022 - 2/10/2023
COMP_22_06_16W 11/7/2022 - 3/24/2023

Personal Protection Equipment (PPE) and Tools Required for Class:
(Welding Gear can be purchased on site. Student must supply his/her own steel-toe, safety shoes and tools.)

- Ankle High, Steel-Toe, Safety Shoes
- Safety Glasses w/ Side Shields
- Welding Jacket
- Welding Gloves
- Welding Cap
- Welding Helmet
- Welper® Pliers
- Channellock® or Vise-Grip®
- Wire Brush
- Chipping Hammer

Please Note: If a student desires to practice on different types of welds, and/or materials other than those offered, material must be provided by student.

API Pipe

Course Description
180 Clock Hours, 6 Weeks
Designed to introduce welders to the Shielded Metal Arc Welding (SMAW) process of welding pipe to meet the API (vertical down) welding code, students are taken from basic pipe welding methods to advanced pipe welding techniques relating to butt joints using cellulosic and low-hydrogen electrodes in accordance with API 1104 code. During advanced instruction, students will be working with schedule 40, 12-inch pipe. Lasting 6 weeks, this course provides 180 hours of booth instruction, lecture and practice. Upon completion of this course, students should have developed the skills for a career in the API piping industry.

Prerequisite: Before entering this class, students must have experience in welding and make passing welds on a sample test plate that includes vertical and overhead welds with E6010 and E7018 electrodes.

Duration: Six Weeks
Time: 8:00 a.m. - 2:30 p.m.
Course Fee: $3,525.00
Registration Fee: $125.00

Course Dates:
API101_22_01 1/24/2022 - 3/4/2022
API101_22_02 3/7/2022 - 4/15/2022
API101_22_03 5/23/2022 - 7/1/2022
API101_22_04 7/5/2022 - 8/12/2022
API101_22_05 9/19/2022 - 10/28/2022
API101_22_06 10/31/2022 - 12/16/2022

Personal Protection Equipment (PPE) and Tools Required for Class:
(Welding Gear can be purchased on site. Student must supply his/her own steel-toe, safety shoes and tools.)

- Ankle High, Steel-Toe, Safety Shoes
- Safety Glasses w/ Side Shields
- Welding Jacket
- Welding Gloves
- Welding Cap
- Welding Helmet
- Welper® Pliers
- Channellock® or Vise-Grip®
- Wire Brush
- Chipping Hammer

Please Note: If a student desires to practice on different types of welds, and/or materials other than those offered, material must be provided by student.

Advanced API Low Hydrogen Pipe Welding

Course Description
30 Clock Hours, 1 Week
Designed for Advanced welders in the Shielded Metal Arc Welding (SMAW) process of welding pipe to learn how to use Low Hydrogen electrodes (vertical down) , students will learn advanced pipe welding techniques relating to butt joints using cellulosic and low hydrogen electrodes, students will be working with schedule 40, 12 inch pipe.

Prerequisite: Attendees should have prior pipe welding experience and/or certifications prior to enrolling in this course.

Duration: One Week
Time: 8:00 a.m. - 2:30 p.m.
Course Fee: $600.00
Registration Fee: $50.00

Course Dates:
API301_22_01 4/18/2022 - 4/22/2022
API301_22_02 8/15/2022 - 8/19/2022

ASME Pipe

Course Description
180 Clock Hours, 6 Weeks
Designed to introduce welders to the Shielded Metal Arc Welding (SMAW) process of welding pipe to meet the ASME (vertical up) welding code, students are taken from basic pipe welding methods to advanced pipe welding techniques relating to the welding of the root & hot pass done with the Gas Tungsten Arc Welding (GTAW) process. Fill & cap passes may be done, based on the student's ability, with low-hydrogen stick electrode. During advanced instruction, students will be working with schedule 40 and 80, 6-inch pipe and 2-inch schedule 80. Lasting 6 weeks, this course provides 180 hours of booth instruction, lecture and practice. Upon completion of this course, students should have developed skills for careers in the pressure vessel piping fields.

Prerequisite: Before entering this class, students must have experience in welding and make passing welds on a sample test plate that includes vertical and overhead welds with E6010 and E7018 electrodes.

Duration: Six Weeks
Time: 8:00 a.m. - 2:30 p.m.
Course Fee: $3,525.00
Registration Fee: $125.00

Course Dates:
ASME101_22_01 1/24/2022 - 3/4/2022
ASME101_22_02 3/7/2022 - 4/15/2022
ASME101_22_03 5/23/2022 - 7/1/2022
ASME101_22_04 7/5/2022 - 8/12/2022
ASME101_22_05 9/19/2022 - 10/28/2022
ASME101_22_06 10/31/2022 - 12/16/2022

Personal Protection Equipment (PPE) and Tools Required for Class:
(Welding Gear can be purchased on site. Student must supply his/her own steel-toe, safety shoes and tools.)

- Ankle High, Steel-Toe, Safety Shoes
- Safety Glasses w/ Side Shields
- Welding Jacket
- Welding Gloves
- Welding Cap
- Welding Helmet
- Welper® Pliers
- Channellock® or Vise-Grip®
- Wire Brush
- Chipping Hammer

Please Note: If a student desires to practice on different types of welds, and/or materials other than those offered, material must be provided by student.

PIPE 301 - Pipe Fab Shop Training

Course Description
24 Clock Hours, Four Days
Advanced 4 day pipe class designed to instruct on typical Pipe Fab Shop welding techniques relating to the welding of the root pass done with the STT Gas Metal Arc Welding (GMAW) process. Fill & cap passes will be done with Pulse and FCAW-G. Welding will be done stationary and on a Pipe Rotator.

Duration: Four Days
Time: 8:00 a.m. - 2:30 p.m.
Course Fee: $600.00
Registration Fee: $50.00

Course Dates:
PIPE301_22_01 4/25/2022 - 4/28/2022
PIPE301_22_02 8/22/2022 - 8/26/2022

INTRO101 - Introduction to Welding

Course Description
30 Clock Hours, One Week
Designed to instruct welders in welding safety and welding techniques utilizing various processes like Shielded Metal Arc Welding (SMAW), Gas Metal Arc Welding (GMAW), Gas Tungsten Arc Welding (GTAW) and plasma cutting.

Duration: Five Days
Time: 8:00 a.m. - 2:30 p.m.
Course Fee: $775.00
Registration Fee: $50.00

Course Dates:
INTRO101_22_01 1/17/2022 - 1/21/2022
INTRO101_22_02 3/7/2022 - 3/11/2022
INTRO101_22_03 5/9/2022 - 5/13/2022
INTRO101_22_04 8/22/2022 - 8/26/2022
INTRO101_22_05 10/17/2022 - 10/21/2022

Course Content
Day 1
Introduction to welding safety and the Fill Freeze and Fast Fill groups of electrodes. One half of the stick lecture will be today. Weld with 6013 flat and horizontal sheet metal. Weld with 7024-1 flat and horizontal 3/8 inch to 1/2 inch plate, single pass and three pass.

Day 2
Second half of stick lecture. Cover Fast Freeze (6010 and 6011), and low hydrogen groups of electrodes. Weld flat and vertical up with both groups of electrodes.

Day 3
Basic MIG lecture. Weld short arc, globular, spray, and pulse spray.

Day 4
Basic TIG lecture. Weld on steel and stainless steel.

Day 5
Plasma cutting.

Personal Protection Equipment (PPE) and Tools Required for Class:
(Welding Gear can be purchased on site. Student must supply his/her own steel-toe, safety shoes and tools.)

- Ankle High, Steel-Toe, Safety Shoes
- Safety Glasses w/ Side Shields
- Welding Jacket
- Welding Gloves
- Welding Cap
- Welding Helmet
- Welper® Pliers
- Channellock® or Vise-Grip®
- Wire Brush
- Chipping Hammer

Please Note: If a student desires to practice on different types of welds, and/or materials other than those offered, material must be provided by student.

SMAW 101 - Introduction to Basic Plate & Sheet Metal Arc Welding

Course Description
30 Clock Hours, One Week
Designed to instruct welders in welding safety with an overview of basic weld symbols, SMAW electrode types and selection, classification of electrodes, power sources and polarity. There will be discussions on advantages and limitations of electrodes as well as different welding techniques. Welding will take place on various mild steel thicknesses in all positions.

Duration: Five Days
Time: 8:00 a.m. - 2:30 p.m.
Course Fee: $740.00
Registration Fee: $50.00

Course Dates:
SMAW101_22_01 4/4/2022 - 4/8/2022

Personal Protection Equipment (PPE) and Tools Required for Class:
(Welding Gear can be purchased on site. Student must supply his/her own steel-toe, safety shoes and tools.)

- Ankle High, Steel-Toe, Safety Shoes
- Safety Glasses w/ Side Shields
- Welding Jacket
- Welding Gloves
- Welding Cap
- Welding Helmet
- Chipping Hammer
- Channellock® or Vise-Grip®
- Wire Brush

Please Note: If a student desires to practice on different types of welds, and/or materials other than those offered, material must be provided by student.

GMAW101 - Gas Metal Arc Welding - Semiautomatic

Course Description
30 Clock Hours, One Week
Designed to instruct welders in welding safety and the Gas Metal Arc Welding process (GMAW/MIG). The course lasts one week, involving approximately 30 hours of booth instruction, lecture and practice.

Duration: Five Days
Time: 8:00 a.m. - 2:30 p.m.
Course Fee: $740.00
Registration Fee: $50.00

Course Dates:

GMAW101_22_01	2/21/2022 - 2/25/2022
GMAW101_22_02	3/21/2022 - 3/25/2022
GMAW101_22_03	4/18/2022 - 4/22/2022
GMAW101_22_04	11/14/2022 - 11/18/2022

Personal Protection Equipment (PPE) and Tools Required for Class:
(Welding Gear can be purchased on site. Student must supply his/her own steel-toe, safety shoes and tools.)

- Ankle High, Steel-Toe, Safety Shoes
- Safety Glasses w/ Side Shields
- Welding Jacket
- Welding Gloves
- Welding Cap
- Welding Helmet
- Welper® Pliers
- Channellock® or Vise-Grip®
- Wire Brush
- Chipping Hammer

Please Note: If a student desires to practice on different types of welds, and/or materials other than those offered, material must be provided by student.

GTAW101 - Gas Tungsten Arc Welding

Course Description
30 Clock Hours, One Week
Designed to instruct welders in welding safety and the Gas Tungsten Arc Welding process (GTAW/TIG). The course lasts one week, involving approximately 30 hours of booth instruction, lecture and practice.

Duration: Five Days
Time: 8:00 a.m. - 2:30 p.m.
Course Fee: $810.00
Registration Fee: $50.00

Course Dates:
GTAW101_22_01 2/28/2022 - 3/4/2022
GTAW101_22_02 3/28/2022 - 4/1/2022
GTAW101_22_03 4/25/2022 - 4/29/2022
GTAW101_22_04 10/24/2022 - 10/28/2022

Personal Protection Equipment (PPE) and Tools Required for Class:
(Welding Gear can be purchased on site. Student must supply his/her own steel-toe, safety shoes and tools.)

- Ankle High, Steel-Toe, Safety Shoes
- Safety Glasses w/ Side Shields
- Welding Jacket
- Welding Gloves
- Welding Cap
- Welding Helmet
- Welper® Pliers
- Channellock® or Vise-Grip®
- Wire Brush

Please Note: If a student desires to practice on different types of welds, and/or materials other than those offered, material must be provided by student.

GTAW104 - Weekend Gas Tungsten Arc Welding

Course Description
12 Clock Hours, Two Days
Designed to instruct welders in GTAW (TIG) welding safety and basic GTAW process fundamentals. Welding will be taught on mild steel and aluminum. Welding consists of edge, corner, lap and fillet welds. Welding is limited to thin material, which does not include pipe, open roots or thick plate.

Duration: Two Days (Sat/Sun)
Time: 8:00 a.m. - 2:30 p.m.
Course Fee: $355.00
Registration Fee: $50.00

Course Dates:
GTAW104_22_01 7/23/2022 - 7/24/2022

Personal Protection Equipment (PPE) and Tools Required for Class:
(Welding Gear can be purchased on site. Student must supply his/her own steel-toe, safety shoes and tools.)

- Ankle High, Steel-Toe, Safety Shoes
- Safety Glasses w/ Side Shields
- Welding Jacket
- Welding Gloves
- Welding Cap
- Welding Helmet
- Welper® Pliers
- Channellock® or Vise-Grip®
- Wire Brush

Please Note: If a student desires to practice on different types of welds, and/or materials other than those offered, material must be provided by student.

FCAW101 - Flux Cored Arc Welding

Course Description
30 Clock Hours, One Week
Designed to instruct welders in welding safety and the Flux-Cored Arc Welding process (FCAW) for both self-shielded (Innershield®) and gas-shielded (Outershield® and UltraCore®) methods.

Duration: Five Days
Time: 8:00 a.m. - 2:30 p.m.
Course Fee: $740.00
Registration Fee: $50.00

Course Dates:
FCAW101_22_01 3/14/2022 - 3/18/2022
FCAW101_22_02 9/12/2022 - 9/16/2022

Personal Protection Equipment (PPE) and Tools Required for Class:
(Welding Gear can be purchased on site. Student must supply his/her own steel-toe, safety shoes and tools.)

- Ankle High, Steel-Toe, Safety Shoes
- Safety Glasses w/ Side Shields
- Welding Jacket
- Welding Gloves
- Welding Cap
- Welding Helmet
- Welper® Pliers
- Channellock® or Vise-Grip®
- Wire Brush

Please Note: If a student desires to practice on different types of welds, and/or materials other than those offered, material must be provided by student.

MTRS301 - Motorsports – Basic Materials Program

What Is It?
34 Clock Hours, One Week
Five day technical program limited to 18 attendees that is approximately 30% classroom and 70% hands-on.

The primary focus of this course is on basic motorsports materials and applications (GMAW, GTAW, Oxyfuel, and Plasma Cutting) including aluminum and stainless steel. In addition to these concepts, new technologies will be introduced, which include Waveform Control Technology® and Precision TIG® technology.

Purpose
To enhance your knowledge of current thinking in arc welding safety, processes, instruction, concepts, equipment and consumables, as well as your welding skills.

Course Content
- Day 1 - Safety and Gas Tungsten Arc Welding (TIG)
- Day 2 - Gas Metal Arc Welding (MIG)
- Day 3 - Alloy (Metallurgy, Identification, Classification, Preheating)
- Day 4 - Alloy (Aluminum and Stainless Steel)
- Day 5 - Oxyfuel, Plasma Cutting, Open Lab and Plant Tour, and TIG Kit with Gas Lens Parts.

Duration: Five Days
Time: Mon-Thurs. 8:00 a.m. - 4:00 p.m.
Fri. 8:00 a.m. - Noon
Course Fee: $1,015.00
Registration Fee: $110.00

Course Dates:
MTRS301_22_01 1/24/2022 - 1/28/2022
MTRS301_22_02 5/23/2022 - 5/27/2022
MTRS301_22_03 10/31/2022 - 11/4/2022

Personal Protection Equipment (PPE) and Tools Required for Class:
(Welding Gear can be purchased on site. Student must supply his/her own steel-toe, safety shoes and tools.)

- Ankle High, Steel-Toe, Safety Shoes
- Safety Glasses w/ Side Shields
- Welding Jacket
- Welding Gloves
- Welding Cap
- Welding Helmet
- Welper® Pliers
- Channellock® or Vise-Grip®
- Wire Brush

Please Note: If a student desires to practice on different types of welds, and/or materials other than those offered, material must be provided by student.

MTRS302 - Motorsports – Advanced Materials Program

It is highly recommended that students attend the Motorsports Basic Materials Program course (MTRS301) prior to enrolling in this course.

What Is It?
34 Clock Hours, One Week
Five day technical program limited to 18 attendees that is approximately 30% classroom and 70% hands-on.

The primary focus is on advanced motorsports materials and applications utilizing the Gas Tungsten Arc Welding (GTAW) process including materials like chrome-moly, Inconel®*, magnesium and titanium. In addition to these concepts, new technologies will be introduced, which include Waveform Control Technology® and Precision TIG® technology.

Purpose
To enhance your knowledge of current thinking in arc welding safety, processes, instruction, concepts, equipment and consumables as well as your welding skills.

Course Content
- Day 1 - Safety, GTAW (TIG) Chrome-moly
- Day 2 - GTAW (TIG) Titanium
- Day 3 - GTAW (TIG) Inconel
- Day 4 - GTAW (TIG) Magnesium
- Day 5 - New Products, Open Lab and Plant Tour

Duration: Five Days
Time: Mon-Thurs. 8:00 a.m. - 4:00 p.m.
Fri. 8:00 a.m. - Noon
Course Fee: $1,375.00
Registration Fee: $125.00

Course Dates:
MTRS302_22_01 1/31/2022 - 2/4/2022
MTRS302_22_02 5/16/2022 - 5/20/2022
MTRS302_22_03 11/7/2022 - 11/11/2022

Personal Protection Equipment (PPE) and Tools Required for Class:
(Welding Gear can be purchased on site. Student must supply his/her own steel-toe, safety shoes and tools.)

- Ankle High, Steel-Toe, Safety Shoes
- Safety Glasses w/ Side Shields
- Welding Jacket
- Welding Gloves
- Welding Cap
- Welding Helmet
- Welper® Pliers
- Channellock® or Vise-Grip®
- Wire Brush

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Please Note: If a student desires to practice on different types of welds, and/or materials other than those offered, material must be provided by student.

WIWW201 - Women in Welding Weekend

Course Description
12 Clock Hours, Two Days
A two-day introduction to welding created just for women. Join other women in learning, creating and welding with a female welding instructor. The first day of class begins with a discussion of safety and proper attire in welding (all gear provided). Later, we'll learn about the history and process of Shielded Metal Arc Welding (stick) to prepare to weld. Practice on a virtual reality welder before heading out to the lab for some hands-on experience. The following day, we'll roll into the Gas Metal Arc Welding (MIG) process and more practice in the morning. During the afternoon, all participants will receive Torchmate™ plasma cut pieces and one-on-one instruction to assemble a welded rose sculpture.

Requirements:
No experience necessary. All Personal Protective Equipment (including safety glasses, welding jacket, gloves and helmet) will be provided by Lincoln Electric for use during the class. Participants must wear their own steel-toed boots, long sleeved cotton shirts and long pants (no shorts or capris permitted). Participants must be 18 years old or older.

Duration: Two Days (Sat/Sun)
Time: 8:00 a.m. - 3:00 p.m.
Course Fee: $230.00

Course Dates:
WIWW201_22_01 2/26/2022 - 2/27/2022
WIWW201_22_02 9/24/2022 - 9/25/2022

METAL101 - Weekend With Metal

Course Description
12 Clock Hours, Two Days
Join welders of all skill levels in a safe, relaxed atmosphere and take advantage of an affordable opportunity to learn the basics of welding. Instruction covers Safety, Shielded Metal Arc Welding (Stick) and Gas Metal Arc Welding (MIG).

Requirements:
No experience necessary. All Personal Protective Equipment (including safety glasses, welding jacket, gloves and helmet) will be provided by Lincoln Electric for use during the class. Participants must wear their own steel-toed boots, long sleeved cotton shirts and long pants (no shorts or capris permitted). Participants must be 18 years old or older.

Duration: Two Days (Sat/Sun)
Time: 8:00 a.m. - 3:00 p.m.
Course Fee: $230.00

Course Dates:
METAL101_22_01 4/2/2022 - 4/3/2022
METAL101_22_02 5/21/2022 - 5/22/2022
METAL101_22_03 7/9/2022 - 7/10/2022
METAL101_22_04 11/12/2022 - 11/13/2022

AWS Accredited Testing Facility (ATF) Welder or Welding Operator Qualification Testing

Qualification Testing
We are proud to offer Qualification Testing through the Lincoln Welding Technology and Training Center. This testing is to evaluate the skill set of the test applicant and no weld training will be provided by the testing facility. All test applicants should arrive ready to test. The cost of the testing includes all materials required, the use of equipment as needed, along with some practice material.

Certification Testing
As an Accredited Testing Facility, we are authorized to perform welder or welding operator testing and offer AWS Certifications which are nationally recognized through the AWS National Registered Database. These tests are identical to the Qualifications tests listed above, but allow the test applicant to be entered into the AWS Database as a Certified Welder. There is an additional $75 fee for AWS Certifications.

Tests can be conducted using any of the following:
- SMAW
- GMAW
- FCAW
- GTAW
- SAW

Testing and certifications can also be tested in accordance with any globally recognized welding codes:
- AWS D1.1 – Structural Steel
- AWS D1.2 – Aluminum
- AWS D1.3 – Sheet Steel
- AWS D1.5 – Bridge
- AWS D1.6 – Stainless
- ASME Sec IX – Pressure Vessel
- API 1104 – Pipelines
- CWB – Canadian Welding Bureau
- ISO International Standards
- And More

3/8" AWS Limited Thickness Testing
Qualification: $225.00

1.00" AWS Unlimited Thickness Testing
Qualification: $275.00

GMAW or GTAW Fillet Weld Testing on 10-18 gauge
Qualification: $150.00

Pipe Welding Test
Qualification: $325.00

Training/Certification/Qualification
The Lincoln Electric Welding Technology and Training Center can meet your needs for customized training and/or certification at Lincoln Electric Corporate Headquarters in Cleveland, Ohio or at your particular location.

Requirements: Please review the requirements listed in the 2022 Lincoln Electric Welding Technology and Training Center Course Catalog or on the registration site.

Lincoln Electric Welding School students will receive testing discounts.

Contact Our Testing Facility at:
+1 (216) 383-4865 **or email us at:**
ATF@LincolnElectric.com

Personal Protection Equipment (PPE) and Tools Required for Testing:
(Welding Gear can be purchased on site. Student must supply his/her own steel-toe, safety shoes and tools.)

- Ankle High, Steel-Toe, Safety Shoes
- Safety Glasses w/ Side Shields
- Welding Jacket
- Welding Gloves
- Welding Cap
- Welding Helmet
- Welper® Pliers
- Channellock® or Vise-Grip®
- Wire Brush
- Chipping Hammer

Welding Professional Seminars

At Lincoln Electric, staying connected to our customers and the end users of our products helps us anticipate their future needs. 2021 marked the new journey of our Welding Professional Series with seminar topics developed by request from companies looking to improve weld quality, productivity and safety.Typically, attendees include professionals such as managers, inspectors, supervisors, engineers, designers, fabricators, owners and contractors.

Seminars are 2.5 days. They start at 8:00 a.m. and end at 4:30 p.m. on Tuesday and Wednesday. The seminars end at noon on Thursday. A total of 20 PDH will be awarded upon completion of each program. Each seminar has a registration fee of $50 and a course fee of $400.

Practical Weld Inspection
20 Clock Hours, 2.5 Days
This seminar is focused on one of the most popular weld inspection methods: visual inspection. All parties involved with welding should know what to inspect “before”, “during”, and “after” welding.

- Welding safety
- Welding processes
- Weld inspection methods
- Discontinuities and defects
- Hands-on inspection of weldments using tools
- Utilizing weld procedure specifications
- Codes, standards, specifications

Practical Weld Inspection Dates:
WPS301_22_01 8/30/2022 - 9/1/2022

Welding Productivity
20 Clock Hours, 2.5 Days
This seminar concentrates on various ways one can improve productivity in their welding operation. Explore welding economics and welding technology solutions to help reduce rejects, rework and scrap. Identification of typical pain-points will be covered.

- Welding safety
- Productivity solutions
- Welding economics
- Welding management
- Hands-on welding labs
- Advanced welding technology solutions
- Automation and mechanized solutions

Welding Productivity Dates:
WPS303_22_01 8/2/2022 - 8/4/2022

Weld Procedure Development
20 Clock Hours, 2.5 Days
This seminar is designed for people who are looking to get formal training on weld procedures. An emphasis of PQRs, WPSs and WPQRs will be addressed in classroom and lab. AWS D1.1 standards are used to support principles presented in this seminar.

- Welding safety
- Welding Processes
- Welding management
- AWS D1.1 Prequalified WPS
- AWS D1.1 Qualification
- Developing prequalified WPS
- Verifying wps compliance
- Welding to prequalified WPS
- Testing weldment

Weld Procedure Development Dates:
WPS304_22_01 1/25/2022 - 1/27/2022
WPS304_22_02 2/1/2022 - 2/3/2022 (class in Atlanta Office)
WPS304_22_03 5/10/2022 - 5/12/2022 (class in L.A. Office)
WPS304_22_04 8/9/2022 - 8/11/2022 (class in Houston Office)
WPS304_22_05 10/18/2022 - 10/20/2022
WPS304_22_06 11/29/2022 - 12/1/2022

Advanced Welding Technology
20 Clock Hours, 2.5 Days
This seminar concentrates on updates and changes with high-tech welding solutions such as Power Wave®. All parties involved will gain hands-on experience with Power Wave technology. The GMAW welding process will support principles in this seminar.

- Welding safety
- Philosophy of advanced welding technology
- Implement: waveform selection and solutions
- Control: process govern
- Verify: industry 4.0 tools
- Automation/Mechanization
- Hands-on lab modules

Advanced Welding Technology Dates:
WPS302_22_01 3/29/2022 - 3/31/2022

Technical Training Services

Lincoln Electric has a long history of providing customers with expert training on our various products, as well as general arc welding fundamentals. Our technical trainers have many years of experience in the welding industry and a very comprehensive knowledge of Lincoln Electric products and welding processes. They also have backgrounds in technical sales and/or technical support.

Lincoln Electric's Technical Training Services group offers a variety of seminars and workshops, ranging from basic welding fundamentals training to high level programs on welding design issues and advanced Power Wave solutions. The team conducts various "train the trainer" seminars for welding educators. We also provide training for our authorized distributors who are at all levels of experience. Programs are held at both our headquarters in Cleveland, Ohio and in the field. Students spend about 50% classroom time and 50% hands-on lab time. Also included are tours of Lincoln Electric's manufacturing and R&D facilities.

The Technical Training Services group also produces state-of-the-art training curriculum and materials for teaching arc welding. Many of this is available on a "no charge" basis for welding instructors.

TECHNICAL TRAINERS

Padraic Bean

Ben Bradbury

Darren Caponi

Charles Cross

Chris Kish

James Mosman

Branden Muehlbrandt

Joe Ochnser

Alex Tocco

Blodgett's Seminars on the Design of Welded Connections

For over 60 years, Lincoln Electric has hosted design seminars that have provided the attendees with ideas of how to make welded products more dependable, lower in cost, and welded in a safe manner. Thousands of engineers have attended these seminars, made popular by Dr. Omer W. Blodgett after whom the seminars are named. Two application-focused design seminars are offered.

BLOD401 - Design of Welded Connections: Steel Structures

36 Clock Hours, 4.5 Days

This seminar is for individuals who design steel structures, such as buildings, bridges and towers. Attendees typically include structural engineers and others associated with welded structures, such as fabricators, erectors and inspectors. AISC 360 and AWS D1.1 standards are used to support the engineering principles presented in the course. Connections subject to static, cyclic and seismic loading are reviewed. Specific topics include the following :

- Weld Process Basics
- Basics of Welded Connections
- Details of Welded Connections
- Principles of Connection Design
- Welded Connections for Cyclic Service
- Welded Connections for Seismic Service
- How to Achieve Ductile Behavior
- Distortion: Causes and Cures
- Welding Metallurgy: Why Connections Crack and Tear
- "Listen to the Steel": (Learning From Failures)
- Fracture Mechanics: Theory and Practical Applications
- Practical Solutions to Common Construction Challenges
- Cost Reduction Ideas
- Welding Demonstration
- Plant Tour

Duration: 4.5 Days
Time: Mon.-Thurs. 8:00 a.m. - 5:00 p.m.
Fri. 8:00 a.m. - Noon
Course Fee: $900.00

Steel Structure Course Dates:
BLOD401_22_01 5/16/2022 - 5/20/2022
BLOD401_22_02 10/24/2022 - 10/28/2022

BLOD402 - Design of Welded Connections: Steel Weldments

This seminar is for individuals who design equipment used for construction, agriculture, material handling and other general purposes. Attendees typically include design engineers and those associated with the production of steel weldments, such as manufacturing and welding engineers. AWS D14 standards are used to support the engineering principles presented in the course. Connections subject to static, cyclic and shock loading are reviewed, with concentrated emphasis on cyclic loading (fatigue). Specific topics include the following:

- Weld Process Basics
- Basics of Welded Connections
- Details of Welded Connections
- Principles of Connection Design
- Theory of Fatigue of Welded Connections
- Design of Fatigue Resistant Welded Connections
- Designing for Shock Loading
- Designing for Torsional Loading
- Distortion: Causes and Cures
- Welding Metallurgy: Why Connections Crack and Tear
- "Listen to the Steel": (Learning From Failures)
- Cost Reduction Ideas
- Welding Demonstration
- Plant Tour

Duration: 4.5 Days
Time: Mon.-Thurs. 8:00 a.m. - 5:00 p.m.
Fri. 8:00 a.m. - Noon
Course Fee: $900.00

Steel Structure Course Dates:
BLOD402_22_01 4/4/2022 - 4/8/2022
BLOD402_22_02 9/12/2022 - 9/16/2022

BTB301 - Beyond The Booth Instructor Course

Who Is It For?
34 Clock Hours, One Week
This course is designed for new welding instructors entering the classroom for the first time. Current welding instructors will also benefit from learning new instructional techniques and ways to engage students at a higher level.

What Is It?
A five day course limited to 48 participants that will be taught by both current welding instructors and guest instructors.

This course will cover curriculum design, lesson plan development, lab management, presentation skills, classroom management and more. The course is intended for new welding instructors at both the high school and community college levels. Participants will leave this workshop with the tools for a successful year teaching welding education.

What's Included?
- Certificate of Completion
- All welding consumables and coupons
- Library of Lincoln Electric resources
- Morning snack and lunch daily
- Group dinner one night
- Plant tours

Duration: Five Days
Time: Mon.-Thurs. 8:00 a.m. - 4:00 p.m.
Fri. 8:00 a.m. - Noon
Course Fee: $450.00

Course Dates:
BTB301_22_01 6/6/2022 - 6/10/2022

CWI401 - CWI Prep Course, Seminar and Exam

Lincoln Electric CWI Prep Course
35 Clock Hours, One Week
This is a course taught by the Lincoln Electric Welding School to give you an extra week of low-cost preparation for the American Welding Society's (AWS) Certified Welding Inspector (CWI) Seminar and Exam. Included in the program are demonstrations and discussions of the various welding processes, including but not limited to metallurgy, discontinuities, preheat, welding symbols, etc. It is offered the week before the AWS CWI Seminar.

Student is responsible for providing their own code book.

AWS CWI Seminar and Exam
Lincoln Electric is a host site for the American Welding Society's (AWS) Certified Welding Inspector (CWI) seminar and examination. In the seminar you will be taught by an AWS instructor how to reference AWS code, examine welds and prepare for the CWI exam on that following Saturday (proctored by AWS).

Seminar starts at 1:00 p.m. on Sunday. Please register for the seminar and exam through AWS.

Note: You must register 8 weeks prior to CWI exam date in order to reserve your spot.

Requirements
Contact Lincoln Electric Welding School and download CWI packet from http://www.aws.org/certification/CWI or call AWS at 800-443-9353 ext. 273 to register for exam.

Note: 5 year detailed work history must be completed before testing. Not a Résumé.

Duration: Five Days
Time: 8:00 a.m. - 4:00 p.m.
Course Fee: $402.50
Registration Fee: $50.00

Course Dates:
CWI401_22_01 2/21/2022 - 2/25/2022
CWI401_22_02 4/18/2022 - 4/22/2022
CWI401_22_03 7/11/2022 - 7/15/2022
CWI401_22_04 9/19/2022 - 9/23/2022
CWI401_22_05 11/7/2022 - 11/11/2022

Seminar and Exam Fee:
(For fees, please contact AWS)

Welding Educator's Workshops

Who Is It For?
This curriculum is geared towards the welding instructors who want to take welding education to the next level by providing industry recognized certifications for their students.

What Is It?
This program is a 4.5 day seminar. The workshop is limited to 24 attendees. By utilizing the LEEPStart / NC3 course curriculum the focus is on instructor certification. Performance welds in SMAW. GMAW, FCAW and GTAW processes will be performed and assessed to increase and verify instructor competencies and knowledge related to technical and practical principles of welding. This course is approximately 60% classroom and 40% hands-on. A personal laptop computer is required.

WEW301 - Welding Educator's Workshop
34 Clock Hours, 4.5 Days , 3.4 CEUs
This course will focus on utilizing new technologies to increase teacher competencies and knowledge related to welding and classroom principles.

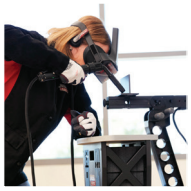
Duration: 4.5 Days
Time: Mon.-Thurs. 8:00 a.m. - 5:00 p.m.
Fri. 8:00 a.m. - Noon
Course Fee: $450.00

"Welding with the Experts"
If interested, you are invited to stay through Friday to weld with Lincoln Electric Welding Instructors to further sharpen your skills. Times for welding will be from 8:00 a.m. to noon.

Duration: 4.5 Days
Time: Mon.-Thurs. 8:00 a.m. - 4:30 p.m.
Fri. 8:00 a.m. - Noon
Course Fee: $450.00

Course Dates:
WEW301_22_01 6/20/2022 - 6/24/2022

VRTEX301 - VRTEX® Virtual Training



Who Is It For?
15 Clock Hours, Two Days , 1.5 CEUs
This course is designed for professionals and educators who teach welding using the VRTEX® virtual reality training tool. Let Lincoln Electric show you how to put the latest education technologies to work!

Duration: 2 days
Time: See Registration
Course Fee: FREE

Course Dates:

VRTEX301_22_01	2/1/2022 - 2/2/2022	Virtual
VRTEX301_22_02	3/29/2022 - 3/30/2022	In-Person
VRTEX301_22_03	5/24/2022 - 5/25/2022	Virtual
VRTEX301_22_04	7/19/2022 - 7/20/2022	In-Person
VRTEX301_22_05	9/13/2022 - 9/14/2022	Virtual
VRTEX301_22_06	11/15/2022 - 11/16/2022	In-Person

It is highly reccomended that attendees have access to a VRTEX simulator during the virtual training sessions.

RWELD301 - REALWELD® Virtual Training

Who Is It For?
15 Clock Hours, Two Days , 1.5 CEUs
These courses are intended to allow new REALWELD® customers to get familiar with the system's components, calibration, operation and system administration.

Duration: 2 days
Time: See Registration
Course Fee: FREE

Course Dates:

RWELD301_22_01	2/3/2022 - 2/4/2022	Virtual
RWELD301_22_02	3/31/2022 - 4/1/2022	In-Person
RWELD301_22_03	5/26/2022 - 5/27/2022	Virtual
RWELD301_22_04	7/21/2022 - 7/22/2022	In-Person
RWELD301_22_05	9/15/2022 - 9/16/2022	Virtual
RWELD301_22_06	11/17/2022 - 11/18/2022	In-Person

It is highly reccomended that attendees have access to a REALWELD machine during the virtual training sessions.

Robotic Automation Training

Course Offerings/Prerequisites
All courses are conducted in a lecture-lab format. Since seating capacity is limited, early registration is advised. Students attending any Advanced Robotic Programming Course are expected to have successfully completed the Basic Robotic Programming Course.

Transportation will be furnished to and from Lincoln each day only to the Lincoln authorized hotel (Cleveland schools only). If you are staying in another location you will be responsible for your own transportation.

If you are attending our Robotic Service Shop Courses, we suggest that you take the Entry Level Standard Course Exam found at the Lincoln Electric website. This exam will evaluate your electrical skill level necessary to pass the course. The Standard Level Test can be found on the Service School page: https://www.lincolnelectric.com/en/Education/Training-Programs/Corporate/Robotic-Automation-Training

All registration and questions for Lincoln Electric Automation School Training is via phone at 1-888-935-3878.
A confirmation email will be sent once registration is complete. Please note that classes fill up quickly. Register at least 6 weeks in advance of the course start date in order to assure the best chance of getting into the class of your choice. Courses will be held if three or more students enroll. All cancellations must be done via email at least 10 days prior to the class start date. Any cancellations with less than one week notice from the course start date will be charged the course fee.

AUTOMATION SCHOOL COURSES

Course Name	Date	Training Location	Class Days	Course Fee	Prerequisite
Basic Robotic Programming	Weekly (Non-Holiday)	Cleveland, OH	Monday - Friday (5 day course)	$2,000.00	None
Intermediate Robotic Programming	1/10/2022 - 1/14/2022 3/7/2022 - 3/11/2022 5/9/2022 - 5/13/2022 7/18/2022 - 7/22/2022 9/19/2022 - 9/23/2022 11/7/2022 - 11/11/2022	Cleveland, OH	Monday - Friday (5 day course)	$2,000.00	None
Advanced Robotic Programming[1]	2/7/2022 - 2/11/2022 4/4/2022 - 4/8/2022 6/13/2022 - 6/17/2022 8/8/2022 - 8/12/2022 10/3/2022 - 10/7/2022 12/5/2022 - 12/9/2022	Cleveland, OH	Monday - Friday (5 day course)	$2,500.00	Basic Intermediate
Robotic Service Training[1]	1/17/2022 - 1/21/2022 4/18/2022 - 4/22/2022 7/25/2022 - 7/29/2022 10/24/2022 - 10/28/2022	Cleveland, OH	Monday - Friday (5 day course)	$2,000.00	Basic Intermediate
WeldPRO™ – Offline Robot Programming	1/19/2022 - 1/20/2022 3/23/2022 - 3/24/2022 5/18/2022 - 5/19/2022 7/20/2022 - 7/21/2022 9/21/2022 - 9/22/2022 11/16/2022 - 11/17/2022	Cleveland, OH	Wednesday - Thursday (2 day course)	$2,500.00	Basic Intermediate Advanced

INSTRUCTORS


Scott Bard


Joe Medves


Aaron Scott

Notes:
- All classes end by Noon Friday.
- WeldPro™ Training does not include customer model of system.

[1] Cancellations made within two weeks of the class start date will not be refunded.

Basic Robotic Programming

Course Duration
The duration is 5 days. Frequency of course offering weekly Monday through Friday. If you have purchased additional options such as Touch Sensing, and Thru-Arc-Seam-Tracking, you will be scheduled for 1-2 additional days for these options.

Robotic Programming Training Course Prerequisites
The robotic programming training course is conducted on a combination lecture-laboratory basis. Typically, students are grouped (2) per robot and work as a team in performing the hands-on exercises. The course is intensive. Students attending are expected to have some experience in one or more of the following: Welding, Electrical Welding, Electrical, Computer or CNC processing.

Welding, Electrical, Computer, C.N.C
Prior robot programming experience is a plus. Assignments are made which require some evening study. The proper selection of the employees to be trained and their interest in being trained are critical success factors in any robot installation.

Students should have experience in GMAW and welding processes. The basic robot programming class is geared towards programmers responsible for maintaining their systems.

Course Objectives
- Safety precautions while programming and operating the robot system
- Fundamentals of teach pendant and arc tool programming language
- Structured programming language techniques and edit commands
- Instructional commands and menu structure
- Operator controls and indicators on the teach pendant and operator panel
- Correct positioning of the robot using the teach pendant and various motion types
- Welding program structure and operation including straight line, circles, and weaving fundamentals
- Proper editing procedures and program commands and functions
- Basic error recovery
- Torch and wrist alignment checks
- How to setup a Tool Center Point
- Home program, Zero program
- Backing up programs to a memory card
- Setting up a jog frame
- Wait and timer instructions
- Program copy, delete, comment and write protect
- Torch cleaning program (option)
- Password protect (option)
- Turntable (option)

Duration: Five Days
Course Fee: $2,000.00
Each additional day: $400.00

Course Dates:

Weekly (Non-Holiday)	
1/24/2022	8/22/2022
1/31/2022	8/29/2022
2/14/2022	9/11/2022
2/21/2022	9/26/2022
2/28/2022	10/10/2022
3/14/2022	10/17/2022
3/21/2022	10/31/2022
3/28/2022	11/14/2022
4/25/2022	11/28/2022
5/2/2022	12/12/2022
5/16/2022	
5/23/2022	
6/6/2022	
6/20/2022	
6/27/2022	
7/11/2022	
8/1/2022	
8/15/2022	

Any Questions?
Contact our Automation School Coordinator at: (888) 935-3878

Intermediate Robotic Programming

Course Duration
The duration is 5 days.
Frequency of course offering 6 times per year.

Course Description
A 5-day training program that covers intermediate tasks and procedures that an operator, technician, engineer or programmer needs to take full advantage of the multiple capabilities of a Lincoln Electric/Fanuc Robotic Welding System.

Course Prerequisites
The person attending must be proficient in basic programming techniques.

Course Objectives
- Use and understand JPOS and LPOS commands
- Use PR's to make circles
- Use PR's for math commands
- Set up and utilize the Teach Pendant Hot Keys
- Touch Sensing
- Use Through the Arc Seam Tracking (TAST)
- Full controller memory backup and restore
- Understand the usage of Skip/label commands
- Setup the Reference Position Utility to establish a safe position for the robot
- Change weld procedures in the middle of a weld and monitor weld command and feedback signals
- Ramping features while welding
- Use logic instructions such as Registers, Position Registers, Jump-label, If, Call, and Offset to simplify programming parts with multiple, similar weld joints
- Set up and use Checkpoint
- Powerwave manager

Duration: Five Days
Course Fee: $2,000.00

Course Dates:
1/10/2022 - 1/14/2022
3/7/2022 - 3/11/2022
5/9/2022 - 5/13/2022
7/18/2022 - 8/22/2022
9/19/2022 - 9/23/2022
11/7/2022 - 11/11/2022

Any Questions?
Contact our Automation School Coordinator at: (888) 935-3878

Note: Cancellations made within two weeks of the class start date will not be refunded.

Advanced Robotic Programming

Course Duration
The duration is 5 days.
Frequency of course offering 4 times per year.

Course Description
A 5-day training program covering advanced tasks and procedures that an operator, technician, engineer or programmer needs to maximize productivity and quality with a Lincoln Electric/FANUC®-RJ-Series Robotic Welding System. Class size is limited to 12 participants.

Course Prerequisites
The person attending must have completed the Lincoln Electric Automation Intermediate Robotic Programming Course.

Course Objectives
- Edit programs while another is running
- Make temporary adjustments to weld points to compensate for batch runs
- Make on-the-fly changes to weld procedures
- Copy/Shift programs to new locations to reduce programming time.
- Add explanatory text to programs including custom alarm messages
- Full controller memory backup and restore
- Use tool offset utility to minimize programming when changing to new style of torch
- Use Find, Replace, Copy and Paste commands
- Setup the Reference Position Utility to establish a safe position for the robot
- Change weld procedures in the middle of weld
- Monitor weld command and feedback signals
- Use Test Cycle to speed up the programming testing process
- Use logic instructions to simplify programming of parts with multiple, similar weld joints
- Setup/incorporate a User Frame into programming
- Fast Start
- APPLIED ROBOTIC WELDING:
  - **Modes of Metal Transfer**
    - Short-Arc Transfer
    - Globular Transfer
    - Axial Spray Transfer
    - Pulsed Spray Metal Transfer
    - Surface Tension Transfer® (STT®)
    - Power Mode
    - RapidArc™
    - Pulse-on-Pulse®
    - Tandem MIG®
    - Synchronized Tandem MIG®

Duration: Five Days
Course Fee: $2,500.00

Course Dates:
2/7/2022 - 2/11/2022
4/4/2022 - 4/8/2022
6/13/2022 - 6/17/2022
8/8/2022 - 8/12/2022
10/3/2022 - 10/7/2022
12/5/2022 - 12/9/2022

Any Questions?
Contact our Automation School Coordinator at: (888) 935-3878

Course Objectives, con't.
- **Effects of Variables**
  - Torch angles
  - Various shielding gases
  - Current density
  - Electrode efficiency
  - Deposition rate
  - Electrode extension and Contact Tip To Work Distance (CTWD)
- **Recognition and Recovery from Common Weld Discontinuities**
  - Porosity
  - Spatter
  - Undercut
  - Incomplete Fusion/Inadequate Penetration
  - Incorrect weld shape and size
- **Basic System Maintenance**

Note: Cancellations made within two weeks of the class start date will not be refunded.

Robotic Service Training

Course Duration
The duration is 5 days.
Frequency of course offering 2 times per year.

Course Description
An intensive training program covering schematic level theory, disassembly and reassembly, as well as electrical troubleshooting on a Fanuc® robot and controller.

This course is intended for persons who must perform electrical and mechanical maintenance and troubleshooting as well as performing preventative maintenance.

Prerequisites
Students should have previous training with electrical/electronics, previous training/or experience in related field involving mechanical disassembly, repair and assembly.

Daily Schedule

DAY 1
- Registration and Welcome
- Robotic Safety Considerations
- Basic Programming Lab
- Motion Fundamentals
- Program Editing
- Weld Programming
- Preventative Maintenance
- Using a Memory Card to Download/Upload Programs

DAY 2
- Tool Frame Setup
- Setup and Operation of Torchmate Option
- Power Wave® Setup
- Operator Stand/Safety Equipment Setup and Operation
- Home Program
- Zero Program

DAY 3
- Overview of Robot Controller and Mechanical Arm Unit
- Block Diagram-Level Theory of Operation
- Schematic-Level Theory of Operation
- Disassemble and Detail of Robot Controller
- Fault Assessment/Troubleshooting

DAY 4
- Mastering/Calibration of Robot Arm
- Full Controller Memory Backup and Restore
- Installing Software
- Replacing Motors and Encoders

DAY 5
- Auxiliary Axis
- Local Stop Circuit
- Review

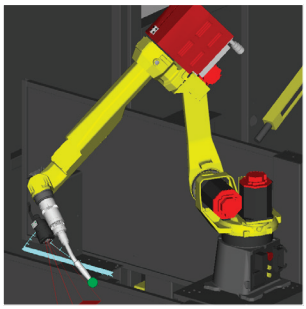
Duration: Five Days
Course Fee: $2000.00

Course Dates:
1/17/2022 - 1/21/2022
4/18/2022 - 4/22/2022
7/25/2022 - 7/29/2022
10/24/2022 - 10/28/2022

Any Questions?
Contact our Automation School Coordinator at: (888) 935-3878

Note: Cancellations made within two weeks of the class start date will not be refunded.

WeldPRO™ – Offline Robot Programming



Course Duration
The duration is 2 days.
Frequency of the course is 4 times per year. Onsite training taught on an as-requested basis.

Course Description
WeldPRO™ is FANUC® Robotics' plug-in to the RoboGuide off-line programming tool, allowing users to simulate a robotic arc welding process in 3-D space. Driven exclusively by a FANUC® Robotics Virtual Robot Controller, WeldPRO™ is empowered with the most accurate program teaching tools and cycle time information available in any simulation package.

A user can easily navigate through WeldPRO™ to create complete workcells by importing actual tooling and workpiece CAD files. Anyone familiar with programming a FANUC® robot will be able to easily create new weld paths with proper torch angles and process parameters. All programs and settings from the virtual workcell can be transferred to the real robot to decrease installation time.

Prerequisites
The person attending must have completed the Lincoln Automation Basic Robotic Programming and System Training Course.

Main Topics
- Software Introduction – Getting Started with WeldPRO™ Roboguide Features
- Creating Workcells – Using The Workcell Creation Wizard
- The Cell Browser
- End of Arm Tooling
- Using the Navigation – Zooming, Panning and Rotating the View
- Jogging the Robot
- Using the Move to Quick Bar – Move to Retry Function
- Adding Objects Using the Cell Browser – Selecting Objects and Using the Objects Property Page
- Working with Fixtures
- Working with Parts – Creating a Robot Program
- Automatic Path Generation (Cad to Path) – Using Features and Segments
- Running a Program
- Using the Virtual Teach Pendant
- Workcell Calibration
- Building a Positioner – Building an Aux Axis and Programming a Positioner
- Defining Coordinated Pairs – Procedure to Use Actual Robot Data
- Using the FANUC® License Manager
- Setting Weld Angles
- Programming Circles

Duration: Two Days
Course Fee: $2500.00 at Lincoln Electric, $2500.00 per day on site (Two Day Minimum)

Course Dates:
1/19/2022 - 1/20/2022
3/23/2022 - 3/24/2022
5/18/2022 - 5/19/2022
7/20/2022 - 7/21/2022
9/21/2022 - 9/22/2022
11/16/2022 - 11/17/2022

Any Questions?
Contact our Automation School Coordinator at: (888) 935-3878

Field Service Shop Training

What Is It?

Lincoln Electric offers a variety of training courses for our network of authorized field service shops. The courses cover detailed instruction on how to troubleshoot and repair various Lincoln Electric welding equipment. They also include discussions on basic electricity and welder components, basic circuitry and theory of operation. In addition there are instructions on using Lincoln Electric's Service Navigator software and completing warranty repair claims. The classes are approximately 50% classroom instruction and 50% hands-on demonstrations and practice in the repair lab. The courses are offered at both our world headquarters in Cleveland, Ohio and at various District Sales Office locations throughout North America.

Who's It For?

These courses are intended for the service and repair personnel at all authorized field service locations. Courses vary from standard training for newer, less experienced technicians, to advanced training on high technology products and robotics for veteran technicians. New product courses are also offered to keep your shop updated on the latest Lincoln Electric equipment.

Note: All hotels outside of CLE will not provide travel to the class each day. Transportation will be the responsibility of the student.

INSTRUCTORS

Dennis Trnavsky

Jorge Adams

Michael Oliver

2022 SERVICE SCHOOL TRAINING COURSES

Course Name	Date	Training Location	Class Days	Course Fee
LASF Certification (5 Days)	LASF301_22_01 03/28/2022	Cleveland, OH	Monday - Friday (Five Days)	$400.00
	LASF301_22_02 05/16/2022			
	LASF301_22_03 08/29/2022			
	LASF301_22_04 10/17/2022			
LASF Re-Certification (3 Days)	LASF302_21_1 01/18/2022	Atlanta, GA	Tuesday - Thursday (Three Days)	$400.00
	LASF302_21_2 03/01/2022	Los Angeles, CA		$400.00
	LASF302_21_3 04/12/2022	Calgary, AB, CA		$400.00
	LASF302_21_4 06/07/2022	Moline, Ill		$400.00
	LASF302_21_5 08/30/2022	Houston, TX		$400.00
	LASF302_21_6 10/18/2022	Salt Lake City, UT		$400.00
	LASF302_21_7 12/06/2022	Cleveland, OH		$300.00
Power Wave® Technology (4 Days)	PWAV301_21_01 04/05/2022	Cleveland, OH	Tuesday - Friday (Four Days)	$400.00
	PWAV301_21_02 04/26/2022	Kansas City, MO		$450.00
	PWAV301_21_03 05/10/2022	Minneapolis, MN		$450.00
	PWAV301_21_04 06/21/2022	Dallas, TX		$450.00
Engine Driven Technology (3 Days)	PWAV301_21_01 06/14/2022	Cleveland, OH	Tuesday - Thursday (Three Days)	$300.00
	PWAV301_21_02 07/12/2022	Tulsa, OK		$400.00
	PWAV301_21_03 07/26/2022	Calgary, AB, CA		$400.00

Regional Programs

Lincoln Electric conducts several training seminars at various locations around North America that have been arranged by our local District Sales offices. Courses vary in length from 1/2 day to one week. These programs cover various topics, including, but not limited to, State Welding Educator Workshops, Power Wave® technologies seminars, Power Wave® AC/DC 1000® seminars, Distributor Training programs and Service School programs.

Requirements
Depending upon the course, there may be minimum attendance and/or fee requirements.

For more information on course dates and type(s) of training being provided locally, please contact your Lincoln Electric District Sales office.

Regional Programs:
Contact the Lincoln Electric District Sales office nearest you. Visit our website: www.lincolnelectric.com for a complete office listing with locations and phone numbers.

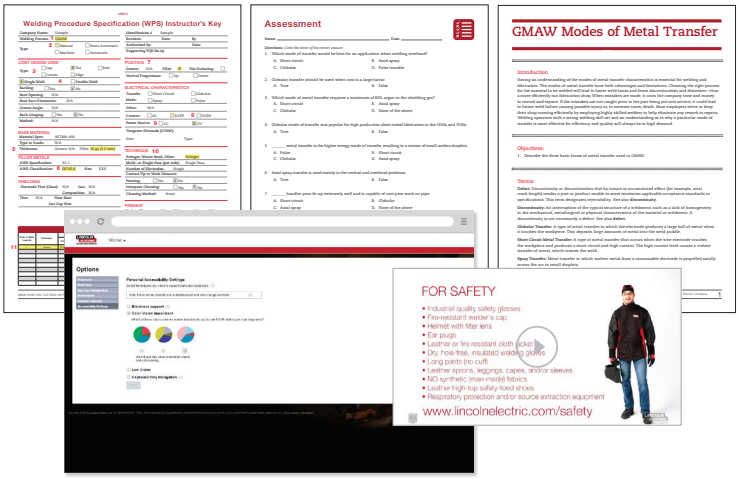
Arc Welding Process Training Materials

The Lincoln Electric Company is dedicated to the advancement, training and safe practice of the art and science of arc welding.

One of the main initiatives in this effort is the production and distribution of some of the most effective training materials in the industry. These materials are made available for little or no cost to welding instructors and include:

U/LINC® Curriculum

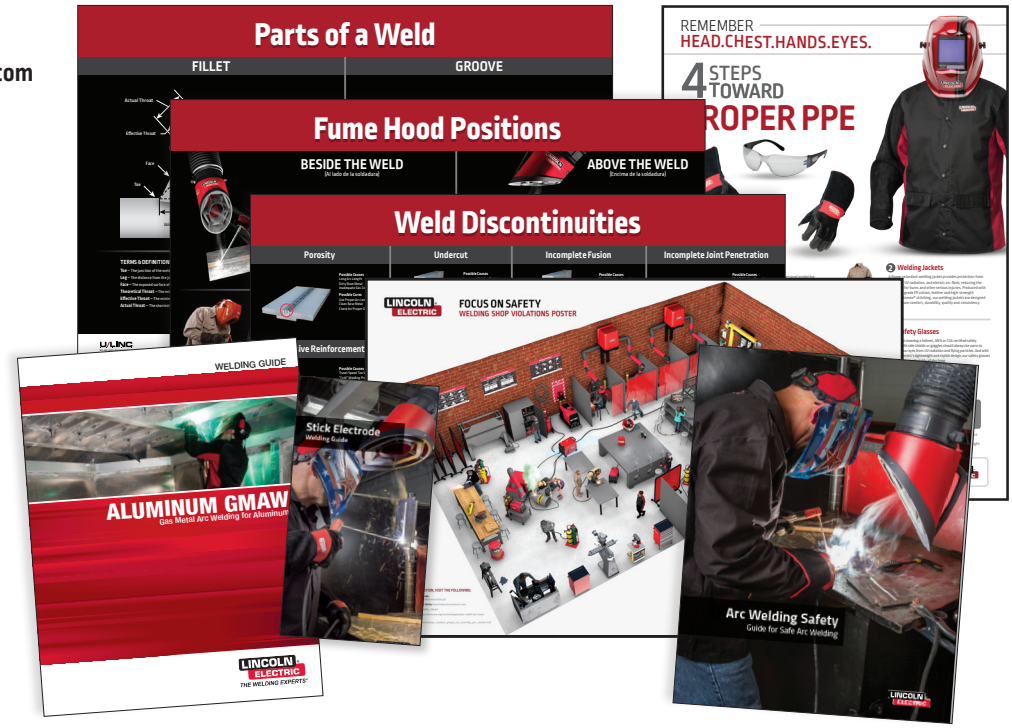
- Stop spending your time developing curriculum – Use U/LINC AWS SENSE and state competency-aligned materials
- Over 18,000 pages of lesson plans, student assessments, lab activities, videos and presentations
- Know exactly which state competencies will or will not be met by your program
- For more information visit: https://www.lincolnelectric.com/ULINC



Other Training Materials

- Posters, welding & process guides, and books
- Order posters individually or as the "Educators Poster Pack (BK-296).

For more information, contact us at educationalsales@lincolnelectric.com



James F. Lincoln Foundation

TEACH IT

The Arc Welding Bookshelf

The James F. Lincoln Arc Welding Foundation was created ***"to encourage and stimulate scientific interest in and scientific study, research and education in respect of the development of the arc welding industry through advance in the knowledge and design and practical application of the arc welding process."*** The Foundation produces and publishes books and other educational materials as a non-profit service to the industry.

BUILD IT

Welding Project Kits

These pre-cut kits provide a fun way for students to try their hand at welding. A clear, step-by-step guide is included.

WIN IT

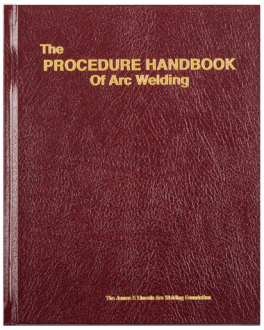
Welding Awards Program

The Foundation awards over $45,000 in cash and prizes each year to the winners of its welding design project contests, as well as the state and national SkillsUSA welding competition winners. Visit, **www.jflf.org** for details on specific contest rules, regulations and application forms.

Visit JFLF.org

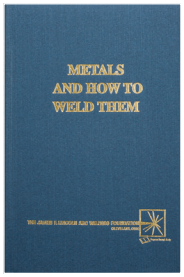
James F. Lincoln Foundation Arc Welding Bookshelf

A Few of the Popular Textbooks and Videos



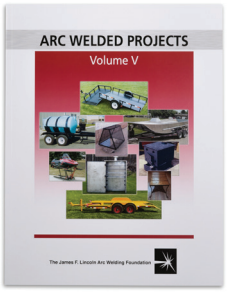
$30

The Procedure Handbook of Arc Welding (PH)
14th Edition
Published by The James F. Lincoln Arc Welding Foundation
With over 500,000 copies of previous editions published since 1933, the Procedure Handbook is considered by many to be the "Bible" of the arc welding industry. The hardbound book contains over 750 pages of welding information, techniques, procedures, photographs, drawings and charts. Much of this material has never been included in any other book. A must for all welders, supervisors, engineers and designers. Many welding instructors will want to use the book as a reference for all students.



$12.50

Metals and How to Weld Them (MHW)
2nd Edition
by T.B. JEFFERSON and GORHAM WOODS
This book describes the internal structure of metals and its relation to mechanical and physical properties and weld ability. This dual purpose textbook and reference manual is written in non-technical language so students, welders, supervisors, engineers and educators will easily understand all data. The 400 page book is 6"x9" with gold embossed hard cover.



$12.50

Arc Welded Projects, Vol. V (AP-V)
Published by The James F. Lincoln Arc Welding Foundation
The projects described in this 200 page book represent the range of entries submitted in the James F. Lincoln Arc Welding Foundation Award Programs both as to the type and size of the project, and the nature of the descriptive information included. Each project is detailed, including prints and bills of material, so the do-it yourself person can understand and build these helpful projects. It also provides great ideas for welding school class projects. Arc Welding Projects I through IV also available.

VIDEOS

Learn To Weld—The Lincoln Way: An excellent visual guide for shielded metal arc welding. This tape concentrates on the fundamental techniques of horizontal, vertical up, and overhead welding. Safety section and technical welding guides included. ***Running Time: 18 minutes.*** **ED201 DVD, $10.00**

Welding—Making It Happen: An excellent video portraying how welding affects our daily lives. Great for teachers and career counselors with students, parents, and the general public. Produced by N.E.M.A. ***Running Time: 16 minutes.*** **ED204 DVD, $10.00**

Welding Safety: Thorough presentation on general shop safety, hazards in the workplace, and information on the subject of welding safely. **MC15-156 Interactive DVD, Pay $5.00 S. & H. only**

Introduction to Semiautomatic Wire Welding: Provides the fundamental expertise necessary to successfully apply both gas-shielded and flux-cored welding wire. ***Running Time: 41 minutes.*** **ED221 DVD, $10.00**

Basic Electricity for Arc Welding: Introduces the beginning welder to basic component parts and terminology of arc welding. ***Running Time: 9 minutes.*** **ED222 DVD, $10.00**

Introduction to Inverter Technology: Inverters reflect the trend in industry for greater efficiency and higher quality welding machinery with inverters being designed to satisfy that demand. ***Running Time: 28 minutes.*** **ED223 DVD, $10.00**

For Welding School Attendees
For students staying long term, there are several student recommended apartments near the Lincoln Electric Welding School. Contact the Lincoln Electric Welding School for a list. Make arrangements in advance of your arrival in Cleveland.

For Technical Training Services Attendees
A block of rooms is reserved at one of the following hotels for each seminar. After registering online, you will receive a confirmation email with information on the hotel, including a link to the hotel booking page. You must contact the hotel directly to make your specific room reservations. Lincoln Electric has negotiated a discounted rate for you.

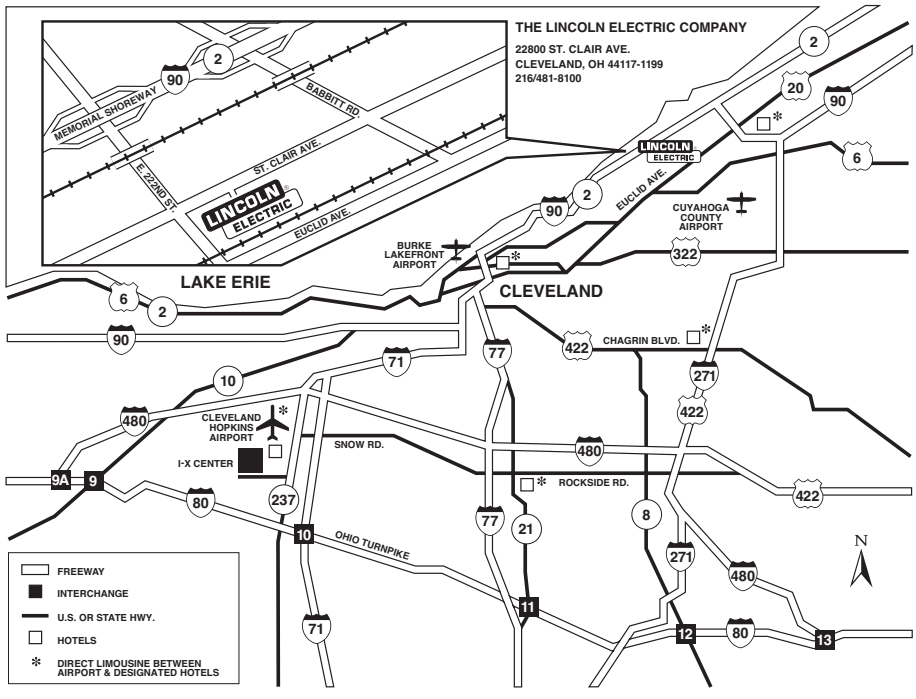
Crowne Plaza Playhouse Square
1260 Euclid Avenue
Cleveland, OH 44115
Phone: (216) 615-7500
Fax: (216) 615-3355
Shuttle service available
Approx. 10 miles from Lincoln Electric

Doubletree Hotel - Cleveland
Downtown/Lakeside
1111 Lakeside Avenue E
Cleveland, OH 44114
Phone: (216) 928-3230
Ask for Lincoln Electric's rate.
Daily rate includes free hot breakfast buffet.

Hilton Garden Inn - Mayfield
700 Beta Drive
Cleveland, OH 44143
Phone: (440) 646-1777
Approx. 9 miles from Lincoln Electric.
Ask for Lincoln Electric Rate

Stonehill Hotel - Eastlake
35000 Curtis Boulevard
Eastlake, OH 44095
Phone: (440) 953-8000
Fax: (440) 953-1706
Website: www.stonehillhotels.com
Shuttle service available
Approx. 8 miles from Lincoln Electric

HOTELS



The Lincoln Electric Company
22800 St. Clair Avenue
Cleveland, OH 44117-1199

The Lincoln Electric Welding Technology and Training Center
Phone: +1-844-818-6038
Fax: +1-216-383-8088
email:
weldtraining@lincolnelectric.com

The Lincoln Electric Company Technical Training Department
Phone: +1-844-818-6038
Fax: +1-216-383-8025
email:
weldtraining@lincolnelectric.com

Welding School Policy

Introduction

Welcome to the Lincoln Electric Welding School. We know you have many options when choosing a welding school and we thank you for choosing ours. Please review the following policies of our institution on the preceding pages. All policies listed apply to students enrolled in our programs at the Lincoln Electric Welding School. Please familiarize yourself with our policies before your first day of class.

If you have any questions regarding our policies or programs, please contact the school by phone +1 (844) 818-6038 or by email weldtraining@lincolnelectric.com

Nothing in this policy is intended to create a contract, including without limitation a contract of employment, either express or implied. Completion of our program should not be construed as a guarantee of employment placement of any kind.

The Lincoln Electric Welding School Mission Statement

To Proactively Provide World Class Leadership and Support for Welding Training through Industry Leading Materials, Programs, Information and Products.

Lincoln Electric Welding School Approvals

The Lincoln Electric Welding School is approved by the Ohio State Board of Career Colleges and Schools (School Number: 71-02-0059T) and accredited to provide International Association for Continuing Education and Training (IACET) Continuing Education Units.

Facility Information

Location

Welding Technology & Training Center
22800 Saint Clair Avenue
Cleveland, OH 44117

Hours (Eastern Time)

Unless otherwise noted, classes are:
8:00 a.m. - 2:30 p.m. Monday - Friday

Instructor Office Hours:

3:00 - 4:00 p.m. Monday - Friday
Hours are subject to change.

Tours

Tours are offered by appointment only.

Please call the Lincoln Electric Welding School office at +1 (844) 818-6038 to schedule an appointment. Closed-toe shoes must be worn.

Cafeteria

The cafeteria is available to students Monday through Friday from 7:30 a.m. until 2:30 p.m.

Welding Lab

The welding lab is available to students ONLY during class hours. The fume control system will be turned off before class, after class and during lunch. Students are not allowed to weld or grind when the fume control system is off. Welding is only allowed in authorized areas as indicated by the instructor.

Students are prohibited from bringing the following into the welding lab:

- Headphones / ear buds
- Food
- Beverage in an open container

Student IDs

Student IDs will be issued on the first day of class. The ID allows a student entry to the Lincoln Electric Welding School and must be displayed at all times. On the last day of class, IDs must be returned to the instructor or the student will not receive a certificate of completion. Lost IDs must immediately be reported to the Security Desk. Students will be charged $25 for a replacement ID.

Parking

Students will receive a temporary parking pass on the first day of class. Parking passes should be placed on the dashboard of your vehicle, visible to security. The Lincoln Electric Welding School is not responsible for damage to a vehicle, theft of the vehicle or any part of the vehicle, or loss of personal items from the vehicle while in the parking lot.

Holidays

The Lincoln Electric Welding School is closed on the following holidays:

- New Year's Eve/New Year's Day
- Good Friday
- Memorial Day
- 4th of July
- Labor Day
- Thanksgiving Day
- Christmas Eve/Christmas Day

During holiday weeks, the normal class hours will be extended. The Lincoln Electric Welding School will close for the last two weeks of December.

Course/Program Cancellation Policy

The Lincoln Electric Welding School retains the right to cancel courses/programs when the course/program does not achieve the minimum enrollment. If a course/program is cancelled by the Lincoln Electric Welding School for failure to meet minimum enrollment, the student will be notified two weeks before the course/program start date. All tuition and fees paid by the student will be refunded within 30 calendar days of the cancellation.

Force Majeure: The Lincoln Electric Welding School also retains the right to postpone, interrupt or cancel courses/programs for any reason, including for causes beyond its reasonable control. These causes include, but are not limited to, Acts of God, fire, power, epidemics, pandemics, labor difficulties, compliance with government laws or regulations, embargo, tariffs, changes in market conditions, delays or shortages in transportation or inability to obtain necessary labor, Raw Materials, or manufacturing facilities from usual sources, equipment failure, or from defects or delays in the performance of its suppliers or subcontractors due to any of the foregoing enumerated causes. Upon the occurrence of any event or circumstance referenced above, The Lincoln Electric Welding School shall have the right to continue, postpone, interrupt or cancel courses at its sole discretion. Lincoln Electric will notify students of such cancellation, postponement or interruption as soon as reasonably possible. All tuition and fees paid by the student will be refunded within 30 calendar days of the course/program cancellation if the course/program is cancelled before the start date. Courses/programs cancelled after their start date or students not returning to an interrupted course/program will be subject to the Lincoln Electric Refund Policy.

Non-Discrimination Policy

The Lincoln Electric Welding School prohibits discrimination on the basis of race, color, gender, national origin, ethnicity, religion, age, disability, veteran status, sexual orientation, gender identity or expression, or genetic information, or any other condition or status protected by law. In addition, the School prohibits harassment based on any of these protected categories, including but not limited to sexual harassment. It is the responsibility of the Lincoln Electric Welding School to ensure that all individuals involved in the administration, development and delivery of learning events be familiar with Lincoln Electric's discrimination policy. The School will make reasonable accommodations for individuals with known disabilities or religious needs unless doing so would result an undue hardship to the School or would create a direct threat of safety to other individuals.

The Lincoln Electric Welding School does not condone or practice discrimination of any kind pertaining to groups or individuals based on these protected categories. This policy applies to all aspects of our programs, including admissions, recruitment, advancement, instruction, evaluation, counseling and financial assistance. Our organization values and respects the dignity and worth of individuals within our academic community. This institution believes in and is committed to equal opportunity based on the fundamental reason that every person is valuable. It is our desire to have appropriate conditions for learning and working so that students can strive to achieve his or her own optimum potential in the work force and in society as a whole.

Anyone who experiences or witnesses unlawful discrimination or harassment should report his or her concerns to the Program Manager of the Lincoln Electric Welding School or any instructor or official of the School. The School strictly prohibits retaliation against persons for raising concerns about

discrimination, sexual harassment or harassment based on another protected category. Violation of this policy may result in disciplinary action up to and including dismissal.

Admission Policy

Admission to the Lincoln Electric Welding School's career training programs are open to anyone with a high school diploma, GED or high school equivalency diploma.

Applicants who have received a high school diploma from an online secondary program or correspondence school may be required to provide transcripts and/or proof that the program is: A) Accredited by accrediting agency recognized by the U.S. Department of Education B) Authorized to offer online or correspondence high school diplomas by the state they are located in.

If an applicant is not accepted into the training program, all monies paid toward their enrollment shall be refunded. Refunds for books, supplies and consumable fees shall be made in accordance with Ohio Administrative Code section 3332-1-10.1.

Students must be 18, or 16 years of age and attending with a parent or guardian, in order to attend a non-career training course. For further information regarding non-career training admission requirements, please see the course descriptions in the catalog.

Accessibility Services

Eligible students seeking reasonable accommodations for their classes and/or programs at the Lincoln Electric Welding School must provide the following:

- A written request stating the accommodation they are requesting and why the accommodation is needed
- Recent diagnosis (within the past two-years) of their disability from a physician, psychologist or other qualified professional

Students are responsible for requesting accommodations and providing documentation. Reasonable accommodations will not be provided without documentation. The School will evaluate all requests for accommodations on a case-by-case basis. Questions regarding this process should be directed to the Program Manager of the Lincoln Electric Welding School.

Admission Process

Classes/Programs:

1. Register online at: classes.lincolnelectric.com/modules
2. Pay registration fee and tuition during registration
3. Student receives a confirmation email*
4. Student attends first day of class

*** Please note, students enrolled in Basic Plate and Sheet Metal Welding must complete the Student Consumer Information Orientation on the first day of class.**

Comprehensive Program:

1. Apply on-line at: classes.lincolnelectric.com/modules
2. Upload high school transcript during application process
3. Pay registration fee and tuition during registration
4. Student receives an acceptance email
5. Student attends first day of class and completes the Student Consumer Information Orientation

Students are advised not to make travel arrangements until their reservation for a course or program has been confirmed.

Dismissal Policy

A student can be dismissed from a course or program based on academic achievement (poor grades), poor attendance and/or unacceptable behavior. Please see the Grade Policy (page 46), Attendance Policy (page 45) and Personal Conduct (page 49) section for further information.

Readmittance Policy

A student who is dismissed from the Lincoln Electric Welding School due to grades, attendance or behavior may submit a written petition to the Program Manager of the Lincoln Electric Welding School to be readmitted. Student petitions will be considered on a case-by-case basis and re-admittance will be solely at the discretion of the Program Manager of the Lincoln Electric Welding School.
Readmitted students will be required to complete a Student Improvement Plan with the Program Manager

of the Lincoln Electric Welding School. The plan will outline the criteria for the student's continued enrollment in the program/class. Please note, the criteria for attendance and/or grades may be more rigorous than the minimum attendance and grades listed in the Attendance and Grades policies. The readmitted student must meet the criteria listed on the Student Improvement Plan or the student will be dismissed from the program/class.

If a student is dismissed a second time from the Lincoln Electric Welding School, the student will not be allowed to re-enroll in a program/class for twelve consecutive months. After twelve months, the student will be allowed to petition the Program Manager of the Lincoln Electric Welding School for readmittance .

A student will not be considered for re-admittance if he/she owes a balance for a prior course/program taken at The Lincoln Electric Welding School. The student will be required to pay the balance before submitting a written petition.

Transfer Credit Policy
Credit(s) granted at another institution cannot be utilized toward the completion of The Lincoln Electric Welding School's Comprehensive Program and/or other courses/programs.

Attendance Policy

Attendance will be taken at the start of each class. The Lincoln Electric Welding School attendance policy is driven by the expectations of industry: While 100% attendance is ideal, students must be in attendance for at least 90% of each program or course attempted in order to be awarded a certificate of completion. In the event a student cannot attend class, the student is expected to notify his/her instructor or the Lincoln Electric Welding School personnel immediately by phone or email or both. Instructors can be notified between the hours of 7:30 a.m. and 4 p.m. Monday through Friday at +1 (844) 818-6038 or by email at weldtraining@lincolnelectric.com.

If a student meets one or more of the following criteria during their enrollment in a Lincoln Electric Welding School course or program, he/she will be dismissed from his/her enrolled program:

- The student is absent the first day of a course or program
- The student misses more than 3 hours of a 1 week course
- The student misses more than 6 hours of a 2 week course
- The student misses more than 18 hours of a course/program that is 6 weeks in length or more
- The student misses more than 10% of any given seminar or customized course
- The student is tardy 3 times during a course and/or program

The Program Manager of the Lincoln Electric Welding School may grant exceptions to the above policy on a case-by-case basis.

A student who is dismissed from a course/program due to attendance, grades or behavior will be subject to the Lincoln Electric Welding School Refund Policy.
The last day of attendance will be the official date of dismissal given to the student by the Program Manager of the Lincoln Electric Welding School.

Excused Absence
A student enrolled in a course/program more than 100 clock hours in length who is ill or caring for ill dependents or who has a family emergency or a reasonable justification as to why they could not come to class may be eligible for an excused absence. An excused absence will not count toward the maximum amount of time a student can miss before being dismissed from a program. It is at the Program Manager's discretion as to whether a student's absence can be counted as an excused absence. Documentation may be requested when deciding whether or not a student's absence is excused.

- **A student cannot utilize an excused absence to miss the first day of class.**
- A student can only utilize 2 excused absences (equal to 2 instructional days) in a course more than 100 hours in length.

Tardiness
Students are expected to be on time for class, both upon arrival in the morning and return from lunch in

the afternoon. Each class will begin promptly at the time specified on the schedule. Students must be inside the classroom prepared with all needed materials when class starts.

Students who are more than 15 minutes late after the class has started will be considered tardy. Tardiness is recorded as an absence in a student's attendance record. All absences are recorded in 15-minute increments.

Students who are going to be tardy due to an emergency are expected to notify their instructor or Registration at +1 (844) 818-6038.

Consequences for a student being tardy include but are not limited to:

- 1st offense: Instructor issues verbal warning
- 2nd offense: Incident is recorded in student's record
- 3rd offense: Student is dismissed from remainder of class and must retake the whole class or program at their own expense

The Program Manager of the Lincoln Electric Welding School may grant exceptions to the above policy on a case-by-case basis.

A student who is dismissed from a course/program due to attendance, grades or behavior will be subject to the Lincoln Electric Welding School Refund Policy.
The last day of attendance will be the official date of dismissal given to the student by the Program Manager of the Lincoln Electric Welding School.

Missed Assignments

If a student has an excused absence, it is their responsibility to check with the instructor as to what coursework they missed. Students who have excused absences will be allowed to make up tests and/or graded projects given when they were absent. Students with unexcused absences will not be allowed to make up coursework missed and will be given a zero for the assignment/project or test.

Leave Of Absence

Students who require extended leave must provide written notification to the Program Manager of the Lincoln Electric Welding School. Requests for leave will be considered on a case-by-case basis.

Grades

During and at the end of each program, written tests and welding samples will be assessed to determine the student's ability to successfully complete and pass each program. Weld samples are tested to AWS, ASME and API welding codes. Written tests are graded on the following scale:
A = 90 – 100%
B = 80 – 89%
C = 70 – 79%
D = 60 – 69%
F = 59% or below and will not pass the school's standards.

To receive a certificate of completion for attending the Lincoln Electric Welding School, students must maintain a 70% GPA on all coursework. If a student falls below a 70% GPA, he/she will be dismissed from the program.

The Program Manager of the Lincoln Electric Welding School may grant exceptions to the above policy on a case-by-case basis.

A student who is dismissed from a course/program due to attendance, grades or behavior will be subject to the Lincoln Electric Welding School Refund Policy.
The last day of attendance will be the official date of dismissal given to the student by the Program Manager of the Lincoln Electric Welding School.

Graduation Requirements

To receive a certificate of completion from the Lincoln Electric Welding School, students must be in attendance a minimum of 90% of their course or program and maintain a 70% GPA on all coursework.

Tuition and Fees

Tuition for an individual class includes training handouts, welding consumables and steel practice coupons (also stainless steel and aluminum when applicable). **If a student wishes to complete an AWS qualification/certification, additional charges will apply.**

Payment
For classes under 300 clock hours, full tuition and fees are due upon registration.

Classes that are more than 300 clock hours are broken into two academic terms, but tuition payments are due in three payments.

- The first payment is due along with the registration fee upon registration.
- The second payment is due after the student has completed 150 clock hours of the program.
- The third payment is due after the student has completed 300 clock hours of the program.

Failure to make a payment on time will result in the student being removed from the course/program.

Payment is due in full if a student withdraws from a course/program that has already begun or is dismissed from a course/program. Course completion certifications are not released to students who have a balance on his/her account nor can they participate in any school sanctioned graduation ceremony.

We accept Visa® and Mastercard®. Any questions regarding payment(s) can be directed to the Lincoln Electric Welding School at weldtraining@lincolnelectric.com or by phone at +1 (844) 818-6038.

Policies for Veteran Students Receiving Veteran Educational Benefits

Veterans Benefits
Students who qualify for veterans' educational benefits are able to utilize their benefits to fund The Lincoln Electric Welding School's Comprehensive Program, Basic Plate and Sheet Metal Arc Welding, API Pipe and ASME Pipe classes.

Veterans Refund Policy
In the event that veterans or their eligible persons sponsored as students under Chapters 30, 32 and 35 of Title 38 and Chapter 1606 or Title 10 U.S. Code, fail to enter the Program or withdraw or are discontinued therefrom at any time prior to completion, the amount charged for tuition, fees and other charges shall not exceed the approximate pro rata portion of the total charges for tuition, fees and other charges that the length of the non-accredited program bears to its total length. A registration fee of $10 need not be refundable: any amount beyond that is subject to proration and refund (CFR21.4254(c) (13)). The pro rata portion may not vary more than 10 percent of the total costs for tuition, fees and other charges.

A copy of this policy will be provided to all students receiving educational benefits from the Veterans Administration.

Veterans Previous Training/Education
Prior training or education will be requested and evaluated.

Veterans Attendance Policy*
Attendance for Veteran students will be taken daily and evaluated every week. Veterans are required to maintain an 80% attendance based on scheduled hours of the program (non-cumulative). A student receiving VA Educational Benefits who has missed 20% of scheduled hours will be dismissed from the program and the VA will be notified.

***All students must meet the attendance policy listed on page 45.**

Veterans Academic Policy
Students will be evaluated and graded on exams and welded specimens. A student must maintain a 70% average on completed exams and welded specimens (non-cumulative). Academic performance will be evaluated every two weeks. Should a student's GPA fall below 70% during the program, the student will be placed on probation with one week to improve to 70% or better. If there is no improvement after one week, the student will be dismissed. A student receiving VA educational benefits will be dismissed and the VA will be notified. Re-entry into the program will be determined at the director's discretion.

A copy of this policy will be provided to all students receiving educational benefits from the Veterans Administration.

Veteran's Non-Penalty Policy
The Lincoln Electric Welding School will not impose any penalty, including the assessment of late fees, the denial of access to classes, libraries, or other

institutional facilities, or the requirement that a covered individual borrow additional funds, on any covered individual because of the individual's inability to meet his or her financial obligations to the institution due to the delayed disbursement funding from the Department of Veterans Affairs under Chapter 31 or 33.

Right to Cancel Policy

If a student registers and enrolls in a course, he/she may drop the course within five calendar days after the date of enrollment. The student must request a drop online through the Lincoln Electric class registration website and a member of the Lincoln Electric Education Team will contact the student within 3 business days to process the request.

If such cancellation is made, the school will promptly refund in full all course and registration fees paid for the course/program and the refund shall be made no later than thirty calendar days after cancellation. This provision shall not apply if the student has already started the course/program.

Refund Policy – Tuition Charges in the Event of Withdrawal/Dismissal

Academic terms are measured in increments of 300 clock hours. Any programs less than 300 clock hours in length has one academic term. The Lincoln Electric Welding School Comprehensive Program is 600 clock hours in length, which means it consists of two academic terms. Our refunds for tuition and refundable fees are made by academic term in accordance with the following provisions as established by Ohio Administrative Code section 3332-1-10:

(1) A student who withdraws before the first class and after the 5-day cancellation period shall be obligated for the registration fee.

(2) A student who starts class and withdraws before the academic term is 15% completed will be obligated for 25% of the tuition and refundable fees plus the registration fee.

(3) A student who starts class and withdraws after the academic term is 15% but before the academic term is 25% completed will be obligated for 50% of the tuition and refundable fees plus the registration fee.

(4) A student who starts class and withdraws after the academic term is 25% complete but before the academic term is 40% completed will be obligated for 75% of the tuition and refundable fees plus the registration fee.

(5) A student who starts class and withdraws after the academic term is 40% completed will not be entitled to a refund of the tuition and fees.

The appropriate refund will be made within thirty calendar days of the date the school is able to determine a student has withdrawn or has been dismissed from a course/program. Refunds shall be based upon the last date of a student's attendance or participation in the course/program.

Any course/program cancelled by the Lincoln Electric Welding School will result in all tuition and fees paid by the student refunded in accordance to the Course/Program Cancellation Policy on page 42.

A student who is dismissed from a course/program due to attendance, grades, or behavior will be subject to the Lincoln Electric Welding School Refund Policy. The last day of attendance will be the official date of dismissal given to the student by the Program Manager of the Lincoln Electric Welding School.

Transfer of Fees

Registration fees are typically nonrefundable after five days of a student registering; however, they may be transferred to another course/program. An applicant can transfer his/her registration fee to another course/program if the school is notified before the first day of his/her original course/program. The registration is forfeited if the student needs to reschedule a second time or if the student notifies the school of his/her intent to change class/program after the original course/program has started.

If a student pays a registration fee of a higher dollar amount than the registration fee of the course it was transferred to, the difference will be allocated to the course fee.

Example: A student pays a registration fee of $100 and needs to change the course. The new course registration fee is $50. The student will have a $50 credit that will be used for the course fee. If course fee

is $500, the student would have a remaining balance of $450.

Data Privacy, Personal Information and Student Records

For information regarding how the Lincoln Electric Welding School collects, uses and discloses a student's personal information, please see our Student Privacy Notice and Policy at: https//www.lincolnelectric.com The Student Privacy Notice and Policy also describes how a student requests access to their student records or authorize the disclosure of such information to a third party.

By providing your personal information to the Lincoln Electric Welding School, you hereby acknowledge, understand and agree to the nature, manner and scope in which we collect, use and disclose your personal information, as set forth in this Student Privacy Policy.

Personal Conduct

All participants are expected to conduct themselves in a respectable manner at all times. Misconduct such as fighting, unprofessional behavior, harassment, actions in violation of our Non-Discrimination Policy, use of illegal drugs or alcohol, or carrying of weapons will not be tolerated and will result in automatic dismissal from the Lincoln Electric Welding School.

Deliberate damage, theft or any vandalism to tools, equipment or facilities will not be tolerated and will result in automatic dismissal from the Lincoln Electric Welding School. Students responsible for these offenses may be prosecuted.

Not following safety procedures or utilizing equipment in an unsafe manner may also result in dismissal from the Lincoln Electric Welding School.

A student who is dismissed from a course/program due to attendance, grades or behavior will be subject to the Lincoln Electric Welding School Refund Policy. The last day of attendance will be the official date of dismissal given to the student by the Program Manager of the Lincoln Electric Welding School.

Cell Phones and Other Personal Data Devices

Personal data devices and electronics can be utilized for classroom and lab work; however, students may be asked to discontinue use or to leave the class if their personal data devices or electronics are disruptive or distracting.

Photo and Recording Policy

Pictures or videos may not be taken anywhere on company property unless approved by the Lincoln Electric Welding School manager. In addition, the use of audio recording devices is prohibited.

Alcohol and Illegal Substances

Students cannot consume, show evidence of having consumed, possess or use any alcoholic beverages or illegal drug(s) at the Lincoln Electric Welding School or on the surrounding property. Illegal drugs include marijuana regardless of whether the student possesses a valid medical marijuana card. A student who is taking a prescription drug that may impair their ability to function in the welding lab must notify and consult with the Program Manager of the Lincoln Electric Welding School.

Evidence of consumption, usage or possession of alcohol or illegal drugs will lead to expulsion from the Lincoln Electric Welding School and possible notification of law enforcement.

Dangerous Weapons

Regardless of having a concealed/carry weapons license or permit, students are prohibited from carrying or having firearms or weapons in the Lincoln Electric Welding School.

Tobacco Policy

Smoking, vaping and chewing tobacco are strictly prohibited in the Welding Technology and Training Center and surrounding parking lot. (Students should ask their instructor for designated smoking areas outside of the facility.)

Lincoln Electric Weld School Phones, Computers and Devices

Personal calls are prohibited on Lincoln Electric Welding School phones. Likewise, students may not use

School computers and devices for personal activities unless authorized in advance. The School retains the right to access all data and information on School phones, computers, and devices. Students retain no expectation of privacy when using School Phones, Computers, or Devices, or when accessing school networks and servers, such as email, on personal devices.

Restricted Areas
Unless accompanied by an instructor, all areas of the distribution center are off limits. Furthermore, the Lincoln Electric Welding School and training labs should not be occupied unless accompanied by an instructor.

Grievance Procedure
All student complaints should be first directed to the school personnel involved or the Program Manager of the Weld School. If no resolution is forthcoming, a written complaint shall be submitted to the Program Manager of the Lincoln Electric Welding School. Whether or not the problem or complaint has been resolved to his/her satisfaction by the school, the student may direct any problem or complaint to the:

Executive Director, State Board of Career Colleges and Schools,
30 East Broad St, Suite 2481,
Columbus, Ohio, 43215
Phone +1 (614) 466-2752;
toll free +1 (877) 275-4219.
Lincoln Electric Welding School Number: 71-02-0059T

Safety

All participants will be required to wear basic safety gear at all times in the Lincoln Electric Welding School. Basic Personal Protection Equipment (PPE) gear includes safety-toe footwear, safety glasses with side shields, a shirt and long pants (non-synthetic fibers only). Items such as helmets, lenses, gloves, leathers and caps may be available in the Lincoln Electric Welding School store at special student prices.

Equipment and PPE Gear
Welding will begin on the first day of class. Students are responsible for providing the following PPE gear, which they must wear at all times when welding:

- Ankle-high leather shoes with safety toes
- Safety glasses that include side shields. Prescription eyewear will be allowed as long as it includes side shield protection and meets all other safety requirements.
- Long pants (No synthetic fibers allowed; no cuffs; absolutely no shorts permitted.)
- Long sleeve shirt (No synthetic fibers allowed) or welding jacket
- Welding gloves
- Welding helmet
- Head gear (A bandana or do-rag to protect head from sparks when welding out of position)
- Hearing protection (Earplugs will be provided)

Students must also be prepared with the following materials:

- Wire brush
- Pliers
- Three-ring binder with writing utensils for class

Safety information, rules, and instructions will be provided to students periodically. Students must abide by all safety rules and instructions at all times. Failure to do so may result in discipline, suspension or dismissal.

Any optional equipment worn at the discretion of the student, example: particulate respirator masks, must be provided by the student.

Locks and lockers are furnished by the Lincoln Electric Welding School. Students should provide any personal items such as a flashlight, Channellocks® and/or helmet. **Please note: The school is not responsible for articles left in lockers.**

Medical Emergency

All medical emergencies must be reported using the appropriate procedures. If you or someone nearby experiences an injury or other medical emergency, immediately contact an instructor or use the nearest telephone to contact Lincoln Electric's emergency services by **dialing 2222**. Do not dial external emergency numbers. If you receive an injury that is not life threatening, please notify your instructor.

Other Emergencies
The Lincoln Electric Welding School has an emergency plan in place, which will be explained to you at the start of the program.

Policy Requiring Disclosure of Instructor's Proprietary Interest
It is the policy of the Lincoln Electric Welding School that any instructor's proprietary interest in products, devices, services or materials discussed, as well as the source of any compensation related to the presentation be disclosed to learners prior to the start of the learning event.

Intellectual and Legal Property Rights Policy
It is the policy of the Lincoln Electric Welding School to give appropriate credit when a learning event utilizes any media that was not created by Lincoln Electric.

Contact and Tour Information
The Lincoln Electric Welding Technology & Training Center
22800 St. Clair Avenue
Cleveland, OH 44117-1199
Phone: +1 844 818 6038
Fax: +1 216 383 8088
wttc@lincolnelectric.com

ENROLL NOW
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