



Are you looking to enhance your technology knowledge and expertise?
Improve the skills and competencies of your employees?
Upgrade internal expertise to maximize your company's competitive edge?

Training and Classes from EWI

Sharpen your own engineering and technical skills or upskill your internal workforce with courses in:

Welding and Joining
Automation and Robotics
Forming
Additive Manufacturing
Nondestructive Testing
Autodesk

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COURSE LISTING
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EWI Courses and Workshops

All EWI courses offer Professional Development Hour (PDH) credits.



WELDING & JOINING

Fundamentals of Welding Engineering

This introductory class, offered as both a full five-day course (36 PDH credits) in Columbus, Ohio, and an abbreviated three-day course (21 PDH credits) in Buffalo, New York, provides engineers and technicians an overview of the aspects of welding technology. Individual modules cover welding processes, welding metallurgy and weldability, welding design and testing (including mechanical testing and NDT), and qualifications and procedure review.

Certified Welding Inspector (CWI) Prep

Are you interested in becoming a certified welding inspector?

This course will provide the essential knowledge and practical skill you need to prepare for the CWI exam. Learn the essentials of navigating code books, using weld quality inspection tools, and providing professional, accurate accounts of welded products. The course is offered in modules that cover the three exam parts: welding fundamentals (exam Part A), practical requirements (Part B), and code study (Part C). Modules may be taken individually (24 PDH credits each for Part A and Part B, 16 credits for Part C) or as a full, 5-day class (64 PDH credits).

Welding Metallurgy [online]

This web-based course is segmented into three parts: 1) Overview of Physical Metallurgy, 2) Introduction to Welding Metallurgy of Steel, and 3) Welding Metallurgy of Stainless Steels. Each of these instructional units can be completed by a student as a micro-credential course itself (7.5 PDH credits each), or all three can be taken together as the complete Welding Metallurgy credentialing course to earn 22.5 PDH credits.

FORMING

Fundamentals & Applications of Sheet Metal Forming

EWI engineers present an overview of sheet metal forming practices, material formability, lubrication, equipment, tooling, and various applications of sheet metal forming. The two-day curriculum is designed for designers, engineers, and managers who have roles and responsibilities in material formability and qualification; tooling design and maintenance; stamping quality check and process control; and purchasing of stamping and tooling equipment. Attendees who complete the course can receive 12 PDH credits.

Advanced Sheet Metal Forming Technology Workshop

Hosted annually in the fall by the EWI Forming Center, this workshop highlights advancements and breakthroughs in stamping, design, material lightweighting, testing and NDE, servo-press applications, FEA, and workforce development. Presenters include subject matter experts from industry, academia, and government. Past participants have included OEMs, stampers, material producers, equipment builders, simulation software developers, suppliers, and researchers.

NONDESTRUCTIVE TESTING & EVALUATION

Fundamentals of Nondestructive Testing [online]

This self-paced course provides an online introduction to nondestructive examination methods and applications. It is designed for technicians, engineers, managers, marketing, sales teams, and related personnel who need or want to gain a fundamental understanding of NDT technology and best practices. The curriculum focuses on three specific testing modes: surface inspection, radiography, and ultrasonics. Completing the full micro-credential course grants 22.5 credits.

AUTOMATION & ROBOTICS

Robotic Basics: A Hands-On Workshop

This one-day workshop gives participants first-hand experience as they learn about static industrial robot and collaborative robot (“cobot”) platforms. Safety considerations for implementing robots into their workplace are covered, as well as fundamental applications for robot types. The in-lab portion of the class shows students how to program basic moves for both robot platforms. Different types of end-of-arm tooling and their industrial applications are also introduced. Attendees earn 6 professional PDH credits upon completion. This workshop can also be customized for employees in your organization to meet your specific requirements.



Robotic Integration

This 5-day class offers a comprehensive introduction to common applications for standard industrial and collaborative robots. It covers robotic selection, operation, and setup; safety considerations; electrical and pneumatic interfacing; basic and intermediate programming; and applications-based programming including pick-and-place, machine tending, palletizing, and continuous path operation. At week's end, participants will have wired and assembled a fully functioning robotics cell. The combination of classroom and hands-on instruction promotes the learning of robotic concepts that can be applied in a variety of production settings rather than specific product knowledge. Robotic Integration offers 35 PDH credits.

ADDITIVE MANUFACTURING

Introduction to Metal Additive Manufacturing [seminar]

Do you need an introductory overview to the principles of metal additive manufacturing? This 90-minute seminar covers all metal AM processes, application selection, and other manufacturing considerations. Taught annually by EWI's AM engineering specialists as a webinar, this program can also be brought to your organization to be presented in person.

AUTODESK

Autodesk PowerMill® for Robotic Additive Manufacturing

This comprehensive, hands-on, 5-day training course teaches students how to use the additive manufacturing tools available in Autodesk PowerMill® Ultimate software, including the generation of real machine code and live demonstrations on EWI's Navus large-scale robotic gantry DED system. Highlights include automated additive toolpath generation, methods to adapt toolpath to geometries unsuitable for automation, robot simulation and dynamic machine control, process development, and parameter control. Attendees will earn a PowerMill Additive Essentials Certification and learn to identify and troubleshoot challenges when applying directed energy deposition additive manufacturing technology.



For EWI's full course outline and current schedule of courses, visit www.ewi.org/courses.

All EWI courses offer Professional Development Hour (PDH) credits.

Pursue your professional development on your own time with

ONLINE MICRO-CREDENTIAL COURSES



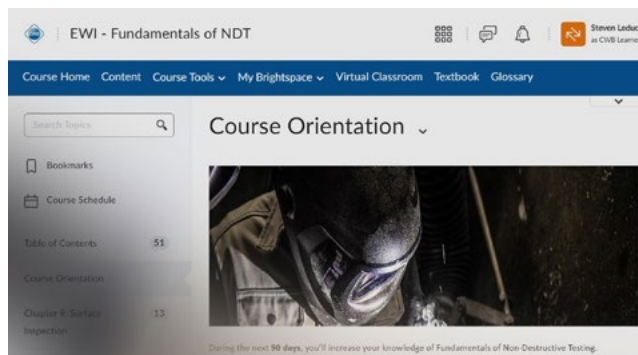
Welding Metallurgy

Scan here
or visit <https://bit.ly/3LEoy01> for more information
To register now, visit <https://bit.ly/40tiWtK>



Fundamentals of Nondestructive Testing

Scan here or visit <https://bit.ly/3TDa6HB> for more information
To register now, visit <https://bit.ly/3z456C8>



These EWI courses are currently available through the CWB Learning Resources Platform. All content and supporting resources are accessible from anywhere through a single portal, including lessons, activities, exams, links to articles, digital textbooks and more.

Provide your employees with the specialized training they need with

CUSTOMIZED COURSES

If you are looking to train four or more technical staffers at your company in a particular skillset, training from EWI can be customized for the particular needs of your organization. Courses can be specially developed for your staff, and classes can be taught in our facilities or yours. For more information, contact Susan Witt at switt@ewi.org or call 716.710.5538.

Take a deeper dive into new processes and techniques with

EWI TECHNOLOGY INNOVATION WEBINARS

In addition to training courses, EWI offers a wide variety of webinars throughout the year. The series reflects the work of EWI engineering specialists and the results of their applied technology investigations within EWI's internal R&D program. Topics include newly developed technologies, manufacturing processes, material studies, and industry initiatives. To view the full calendar of upcoming events, visit www.ewi.org/events.

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