Professional Development Opportunity for Welding Educators

Welding Courses for Educators 2019

These courses are designed for Professional Development of Welding Educators teaching secondary and post-secondary welding programs. A description of each training module is listed below:

Module # 1: Welding Metallurgy
"Welding Metallurgy and Weldability of Commercial Alloys" course covers introduction of concepts and fundamentals, and the best educational practice methods to teach heat flow, welding metallurgy, and the weldability of ferrous and non-ferrous commercial alloys. Laboratory work consists of welding metallurgy investigation on the welded samples and weldability testing for specific applications.

Module # 2: Joining and Cutting Processes
"Joining and Cutting Processes" course covers the basics and principles of major joining and cutting processes. Advantages, disadvantages, equipment, consumables, techniques and variables for each process are discussed. Applications, criteria for consumable selection and how to establish process parameters are emphasized. Laboratory work involves equipment set up and operating of the welding and cutting equipment for specific applications.

Module # 3: Design/ Assembly/ Robotics
"Design for Welding, Fabrication, Assembly and Robotic Welding" course covers in-depth review of concepts and fundamentals, and the best educational practice methods of the design for welding, fabrication, assembly and robotic welding. Laboratory work consists of programming and operating robots for GMAW welding.

Module # 4: Weld Quality & Inspection, Welding Codes, Specifications & Safety
"Weld Quality and Inspection, Welding Codes, Specifications and Safety" course covers in-depth review of concepts and fundamentals, and the best educational practice methods of the weld quality and inspection methods, welding codes, specifications and safety. Laboratory work consists of setting up and operating the instruments and equipment for identification and characterization of weld discontinuities and defects.

Module # 5: Laser Welding
"Laser Welding" course covers the concepts and fundamentals of laser welding technology- basic optics, laser welding systems, welding process optimization and metallurgy of laser welds. Laboratory work consists of case studies that will involve optimization of laser welding equipment and identification and characterization of weld discontinuities and defects.

Module # 6: Instructional Design & Teaching Strategies for Welding Instruction
"Instructional Design & Teaching Strategies for Welding Instruction course covers development of a welding program from needs assessment through curriculum development, and teaching strategies to development and evaluation of student achievement. The module content includes welding program development, writing program and course objectives, use of advisory committees, curriculum development, learning theory, teaching methods, learning styles, laboratory teaching, organization, assignment development and evaluation methods.

Module #7 NDT
The Non-Destructive Testing Module covers methodology to detect common metal defects and failure mechanisms, such as cracking and corrosion by utilizing different detection methods such as radiographic inspection, ultrasonic inspection and magnetic particle inspection.

Module # 8 Additional Welding and Allied Processes
"Additional Welding and Allied Processes" course covers the basics and principles of less major joining, cutting, and allied processes. These processes are used in special applications where more traditional processes cannot be used due to material properties and specifications of the product. Advantages, limitations, equipment, consumables, techniques and variables for each process are discussed. Applications, criteria for consumable selection and how to establish process parameters are emphasized. Laboratory work involves equipment set up and operating for many of the processes.

Weld-Ed Training Opportunity

Participants will receive a complete set of training materials for classroom use. Participants are responsible for travel, lodging and meals.

There's a maximum of 20 participants per location. If course enrollment is less than 10, the course may be cancelled with full refund of registration fee. Notice of cancellation will be given one month prior to start of class. Secondary and post-secondary teachers are eligible to apply for Weld-Ed training. These courses will be awarded a Certificate of Attendance by the National Center for Welding Education and Training. Each module is worth 4 CEU and 40 professional development Hours(PDH).

To register, please visit: www.weld-ed.org

National Science Foundation
WHERE DISCOVERIES BEGIN

Weld-Ed
National Center for Welding Education and Training

Weld-Ed is a National Science Foundation ATE National Center of Excellence, with the stated mission of promoting post-secondary schools around the country in developing and implementing educational programs that support the creation of welding and materials joining technicians.

Telephone: (866) 529-9353 | Website: www.weld-ed.org | Address: 1005 N Abbe Rd, Elyria, OH 44035

MODULE	COURSE	DATE	LOCATION	INSTRUCTOR
1	*Welding Metallurgy*	July 8-12	North Dakota State College of Science, Wahpeton, ND	Mark Baugh
2	*Joining and Cutting Processes*	June 10-14 August 5-9	Illinois Central College, E Peoria, IL Yuba College, Marysville, CA	Rick Polanin Dan Turner
3	*Design, Assembly, Robotics*	TBD		
4	*Codes Standards, Safety Inspection*	TBD		
6	*Instructional Design & Teaching Strategies*	July 8-12	College of the Canyons, Santa Clarita, CA	Rick Polanin
7	*Non-Destructive Test (NDT)*	June 17-21	Chattanooga State Community College, Chattanooga., TN	Tracie Clifford
8	*Additional Welding and Allied Processes*	June 24-28	Weber State University, Ogden, UT	Mark Baugh

For up to date Information, go to Weld-Ed.Org