

Frequently-asked questions about the AWS Certified Welding Supervisor Program

ATTENDING THE SEMINAR

Can I register for the seminar on-line?

Yes, registration is available via our website at <http://www.aws.org/certification/CWS>. Registering for the seminar does not automatically qualify you to take the exam. See "APPLYING FOR CERTIFICATION" below.

What does the seminar registration fee include?

Daily instruction, reference books and other handout materials, breaks and lunches.

Can I stay in the same hotel where the seminar is held?

Hotel information will accompany your confirmation letter. By identifying yourself as an AWS customer, you will be able to get a room rate that is generally discounted from normal rates charged by the hotel. Reservations at the discount rate should be made 30 days prior to the seminar.

Do you offer on-site seminars and exams?

If you are training groups of six or more, then AWS In-House/On-Site Training may be a cost-effective option. We'll bring in our expert instructors to train your team at your facility. Training can also be customized to meet your specific needs for increasing welding productivity and improving weld quality. For more information, contact AWS at 800-443-9353, ext. 229.

Does registering as a nonmember for the seminar or exam include an AWS Membership?

If you are a nonmember who is attending the seminar and/or taking the exam, your fee includes a one-year membership in AWS. Your membership will become active after the completion of the seminar and/or exam.

Does the seminar count toward professional development hours for CWIs?

Yes, the contact hours apply to renewals and 3-year and 9-year CWI recertification.

EXAM QUALIFICATION

How do I qualify as a Certified Welding Supervisor?

In order to qualify as a Certified Welding Supervisor candidate you must:

- be a high school graduate or hold a state or military approved high school equivalency diploma.
- provide employment information to verify that you have three years of practical welding experience in a fabrication, construction, or welding-related industry. Practical experience in a welding-related industry is an occupational function that has a direct relationship with weldments fabricated to a code, specification, or other standard, and is directly involved in at least one of the following: design, production, construction, inspection, or repair.

As an alternative, three years of relevant teaching experience may be substituted for one year of the practical experience requirement, with proper documentation. Relevant experience is considered when you teach full-time or part-time on a full-time equivalence in a trade, technical school, college, or university, and that you teach the occupational skill of welding or subjects relating to welding, its application, control, materials, and processes.

APPLYING FOR CERTIFICATION

How do I apply for CWS certification?

You can begin the certification process by filling out the CWS application, which is available from our website at <http://www.aws.org/certification/CWS> or you may call 800-443-9353, ext. 273 and request that an application be mailed.

IF ANY APPLICATION INFORMATION IS INCOMPLETE OR MISSING, IT WILL NOT BE PROCESSED UNTIL ALL DOCUMENTATION IS COMPLETE.

Why does my application have to be submitted by mail?

You must submit your application by mail because areas within the application must be notarized. PLEASE DO NOT FAX YOUR APPLICATION.

How long does it take to determine if I qualify to test for CWS certification?

Applicants will be notified six weeks after their application has been submitted. We strongly urge applicants not to make inquiries prior to the six week processing period, as doing so may delay the processing of your application. Should you need your application processed sooner, call 800-443-9353, ext. 273, for specifics on "Fast Tracking" your application. (Please note that an additional fee is charged for this service.)

What if I don't qualify for CWS certification?

You will be notified and receive a refund, less a \$75 processing fee.

TAKING THE CERTIFICATION EXAM

What knowledge is required for the exam?

Candidates for welding supervisor must pass an exam based on the essential tasks designated for the welding supervisor:

- Personnel management
- Supervision
- Codes/quality management (QM) requirements (desirable, but not required)
- Qualification of personnel
- Safety
- Welding preparation and fabrication
- Planning
- Control
- Equipment/consumables
- Quality management and quality control requirements in: *personnel (desirable, but not required), procedure, procedure testing, materials/pretabrication, welding inspection, documentation*

Candidates must also be familiar with and understand the fundamentals of the following processes: SMAW, SAW, OFW, GTAW, FCAW, GMAW, SW, brazing, thermal cutting and mechanical cutting (cutting processes refer only to those that are applied to the fabrication and repair of weldments).

Can I reschedule my exam date?

AWS will allow two reschedules per calendar year at no charge; if a request is received two weeks prior to the scheduled exam date. Any requests that do not meet this criteria prior to the scheduled exam, will be assessed a rescheduling fee. (For complete details, visit the AWS website at <http://www.aws.org/certification/CWS> or you may call 800-443-9353, ext. 273.

How long is the exam?

The exam is given in two parts and lasts four hours.

What is covered in the exam?

Part I – Fundamentals of Supervision
Part II – Welding Practices and Economics

When do I find out if I passed the exam?

You will be notified in about four weeks on how well you performed. To ensure your privacy, AWS does not divulge your test results by telephone.

RENEWING CERTIFICATION

Once I become certified, will I have to renew my certification?

Yes. Your certification will remain in effect for three years. Prior to the end of the three years, you will need to renew by providing documentation and evidence of continued activity as a welding supervisor. After nine years of continuous certification, you must meet additional CWS recertification requirements.

AWS Certified Welding Supervisor Seminar/Exam Schedule

(Seminar: 5 days, Exam: 1 day)

LOCATION	SEMINAR DATES	EXAM DATES
Long Beach, CA	Dec. 8-12, 2008	Dec. 13, 2008
Atlanta, GA	Jan. 26-30, 2009	Jan. 31, 2009
Houston, TX	Mar. 2-6, 2009	Mar. 7, 2009
Baton Rouge, LA	Apr. 20-24, 2009	Apr. 25, 2009
Columbus, OH	Jun. 1-5, 2009	Jun. 6, 2009
Minneapolis, MN	Jul. 20-24, 2009	Jul. 25, 2009
Philadelphia, PA	Aug. 31-Sep. 4, 2009	Sep. 5, 2009
Tulsa, OK	Oct. 5-9, 2009	Oct. 10, 2009
Long Beach, CA	Nov. 30-Dec. 4, 2009	Dec. 5, 2009

AWS reserves the right to cancel or change the published date of an exam preparation seminar listed if an insufficient number of registrations are received. Exams can also be taken at dozens of AWS CWI exam sites.

***APPLICATION DEADLINE:** The application submission deadline is six weeks prior to the scheduled exam or course date. Applications that do not meet this criteria will be assessed a **\$250 Fast Track fee** to expedite the process and to accommodate the exam site requested. Please contact the Certification Department for more information regarding this procedure

INFORMATION

CWS SEMINAR-ONLY CANDIDATES: Download a seminar-only registration form from <http://www.aws.org/certification/docs> and fax it to 305-648-1655; mail it to AWS at 550 N.W. LeJeune Rd., Miami, FL 33126; or just call us at 800-443-9353, ext. 455. If planning to register onsite, please confirm with AWS in advance that you can be accommodated upon your arrival.

CWS SEMINAR AND EXAM CANDIDATES: Fill out an exam application and mail it to the AWS Certification Department at least six weeks before the exam. You may download the application at <http://www.aws.org/certification/docs> or call us at 800-443-9353, ext. 273, and we will mail you one. You can also register for the seminar conveniently on the exam application. Please mail your completed exam application to AWS at 550 N.W. LeJeune Rd., Miami, FL 33126. Due to the six-week prequalification period, it is not possible to register onsite for the exam. **SORRY, BUT WE DO NOT ACCEPT FAXED EXAM APPLICATIONS.**

SPECIAL CONSIDERATIONS: In accordance with the Americans with Disabilities Act (ADA), AWS strives to accommodate all participants with special needs. If you require assistance, please call 800-443-9353 to inform the AWS Education Services Department (ext. 455) and the AWS Certification Department (ext. 273), well in advance of the date of the seminar and/or exam.

CANCELLATIONS & REFUNDS:

EXAM ONLY: The Certification Department MUST receive a Request to Cancel Seminar/Certification Exam Form two weeks before the scheduled exam date. Registrants will be refunded in full, less a \$75 administrative fee. If a cancellation notice is received less than two weeks before, registrants will be refunded in full less a \$140 administrative fee. A No Show is liable for all registration fees.

SEMINAR ONLY: The Education Services Department MUST receive a cancellation in writing two weeks before the first day of the scheduled seminar. Registrants will be refunded in full, less a \$75 administrative fee. If a cancellation notice is received less than two weeks before, registrants will be refunded in full, less a \$175 administrative fee. Substitutions or transfers to another site with two weeks notice are complimentary. A No Show is liable for all registration fees.

SEMINAR AND EXAM: The Certification Department MUST receive a Request to Cancel Seminar/ Certification Exam Form two weeks before the first day of the seminar. Registrants will be refunded in full, less a \$75 administrative fee. If a cancellation notice is received less than two weeks before, registrants will be refunded in full, less a \$315 administrative fee. A No Show is liable for all registration fees.

IMPORTANT NOTES: AWS reserves the right to cancel any exam preparation seminar and/or exam if the number of participants is insufficient. In the event of cancellation by AWS, all fees will be refunded in full, or the participant may reschedule to the next available seminar. Should a cancellation become necessary, AWS will attempt to contact all registrants verbally, no later than 10 days before the scheduled program. In either case, AWS shall have no further liability. We suggest you confirm your course status before making final travel plans, by calling 800-443-9353, ext. 455. If you are flying, we recommend that you purchase refundable airline tickets.



**How to
save up to
\$17,000
per welder
per year**



American Welding Society®

Founded in 1919 to advance the science, technology and application of welding and allied processes including joining, brazing, soldering, cutting and thermal spraying.

www.aws.org

The AWS Certified Welding Supervisor Program.

**Enhance your CWI credentials.
Increase quality & productivity.
Reduce welding costs.
Maximize profitability.**

2009 seminar/exam dates inside

*40 hours =
up to \$17,000
annual savings
per welder.
That's a no brainer!!*

About the AWS Certified Welding Supervisor Program

Why Get Certified as a Welding Supervisor? It's simple: Welding Supervisors can make a valuable contribution to the four most important metrics in welding operations: quality, cost, productivity and safety. According to a final report on Welding Supervisor Training and Certification, CWS help reduce welding costs and increase productivity and profitability.

Often the underlying cause of a supervisor's inability to improve productivity can be traced to inadequate knowledge and the minimal amount of time that a supervisor actually spends with welders. The AWS Certified Welding Supervisor program was created to rectify these conditions by offering welding supervisors and their companies the opportunity to put the welding supervisor in a support position for the welders, making them the most productive and best they can be. This innovative program identifies a body of knowledge all welding supervisors should know and understand to increase productivity and improve weld quality.

And...you don't have to be a welding supervisor to benefit from attending the five-day seminar. The curriculum has been designed to benefit others in your company, such as those involved in management, engineering, design, and purchasing.

Reality Check!

Take 500 linear feet of 3/16 inch fillet weld that your company has to weld.

Welder A delivers a 3/16-inch fillet weld at the WPS-specified 250 amps. Welder A uses 35 lbs. of filler metal, gets the job done in eight hours and the total cost for this weld, labor included, is **\$380**.

Welder B welds at only 225 amps and oversizes the weld by 1/16 inch. He deposits 27 lbs. more filler metal and takes 13 extra hours to make the weld. The direct cost for 500 feet of weld with Welder B is **\$988**.

Welder C welds at only 180 amps and oversizes the weld by 1/8 inch. He deposits 63 lbs. more filler metal than Welder A and takes more than 70 extra hours to make the weld. The direct cost for Welder C to make the same weld is almost **\$3,600**.

There are lots of reasons why this is a real world situation. Which welder do you have working for you?

The AWS Certified Welding Supervisor will be trained to recognize these problems and work with welders to gain the maximum productivity out of this and other aspects of the welding fabrication process.

Did you know...

AWS, along with the National Shipbuilding Research Program (NSRP) conducted a study on the advantages of training welding supervisors and its effect on production costs and efficiency. The research was supported through a trial project at a shipyard in Alabama. The results of the trial program are clear:

- Projected costs per welder were reduced by \$17,000 annually. Labor hours on successive modular construction sequences were actually reduced by 1,000 hours per module.

- The potential savings of the program totaled \$2 million annually.

- On a multiple-ship order, the typical improvement in efficiency averaged 200-300

hours when a module is repeated. After the Welding Supervisor training, the first repeated module was done with 600 fewer labor hours; the second showed 1,000 fewer labor hours.

- Operational goals for achievement and their estimated savings:

- > Reduce weld metal volume**
Estimated Potential Savings: \$3,319 per welder

- > Reduce arc time per weldment**
Estimated Potential Savings: \$4,280 per welder

- > Reduce rework and scrap**
Estimated Potential Savings: \$3,244 per welder

- > Reduce work effort and motion and delay time**
Estimated Potential Savings: \$6,200 per welder



Why AWS CWS certification is the right answer for you and your company

IF YOU WORK IN THE FIELD OF WELDING:

Make the smart decision to become an AWS Certified Welding Supervisor. Certification can mean better pay, more job security, and the proof that your skills and knowledge label you as one of the industry's elite.

Becoming certified means passing tests that require a high degree of knowledge and top-notch skills.

The AWS Certified Welding Supervisor seminar delivers knowledge and value.

If you have little time to study, like most everyone else, then AWS has the answer. We offer a five-day intensive seminar that will help prepare you to pass the AWS welding supervisor certification test. Our experienced instructors will help you learn the material you need to know fast, and show you how to use and understand the latest standards.

The AWS Certified Welding Supervisor seminar is an excellent value. The price includes a complete prep course taught by veteran instructors, refreshments and lunch, AWS membership (for nonmembers), subscriptions to the *Welding Journal* and *Inspection Trends*, and reference books. You save time and money too, because we supply many of the books you need (a \$300 value).

AWS Certified Welding Supervisor seminar weeks are offered in various locations across the country, so there's sure to be one scheduled near you. By grouping the seminar with the test, you can attend both with less time off from the job and less travel expense.

Prep for the Certified Welding Supervisor test with the best.

When preparing for an exam that proves you're one of the best, look to the people who know it best—AWS. From developing codes and specifications that keep our industry strong, to creating the books that share that information with you, and administering the exams that affirm that knowledge, AWS is your best source for the AWS Certified Welding Supervisor certification exam preparation. Don't waste time going anywhere else.

For details about AWS CWS Certification, visit <http://www.aws.org/certification/CWS>

IF YOU MAKE DECISIONS ABOUT EMPLOYEES RESPONSIBLE FOR WELDING SUPERVISION:

When you hire an AWS Certified Welding Supervisor, you are getting one of the most highly qualified individuals in the business. AWS welding supervisor certification helps your company minimize costs and increase profitability.

In business, time is money—your money.

At AWS, we recognize that time is valuable. AWS Certified Welding Supervisor seminars save your company time and money on training and testing.

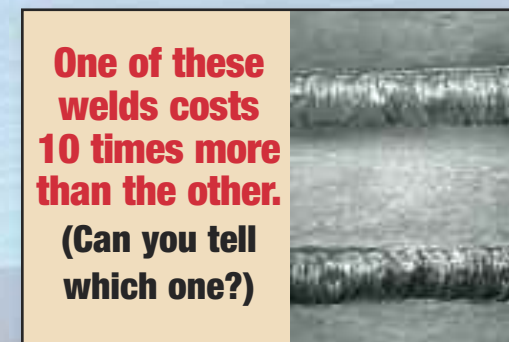
We also want to make it easy on your bottom line by offering the seminar (pre-exam course) and the certification exam in the same city. Or, your employee can take the exam at a later date in another city that may be more convenient for your company.

In-house/on-site training

If you are training groups of six or more, AWS offers in-house/on-site training as a cost-effective option. We'll bring in our expert instructors to train your team at your facility. Training can also be customized to meet your specific needs for increasing welding productivity and improving weld quality. Call 800-443-9353, ext 229 for more information.

Take the guesswork out of hiring someone qualified.

AWS Certified Welding Supervisors can improve quality, increase productivity, and give your company a unique advantage. Those in the industry who qualify will be highly regarded and sought after throughout the welding industry, because their certification attests to a documented level of skill and expertise.



One of these welds costs 10 times more than the other. (Can you tell which one?)

Certified Welding Supervisor Exam-Preparation Seminar

Course Description

The Certified Welding Supervisor seminar was developed to teach individuals the mastery that welding supervisors must be capable of demonstrating. This five-day course focuses on the knowledge a supervisor needs to support improvement of the welders' environment, productivity, throughput, weld quality and safety. Participants will learn the science rather than the art of welding for a better control of variables in the welding process. This program focuses on the economics of welding and is the first AWS program designed to enhance the profit margins of welding fabrication companies.

Who can benefit from attending the seminar?

- Welding supervisors
- Foremen
- Line leaders
- Lead welders
- Engineers or anyone involved in the design drawings
- Personnel involved in bidding or quoting work in the welding fabrication operation
- Purchasing personnel
- Drawing preparation personnel, or detailers
- Corporate welding instructors
- Certified Welding Inspectors

What are the advantages of becoming a CWS?

- Learn ways to increase welding productivity
- Learn ways to improve welding processes and production
- Learn the keys to cost-effective welding
- Learn to improve throughput, weld quality and safety
- Learn how to improve your welders' environment
- Acquire key skills: supervisory, process control management, increased productivity through efficient use of welding resources and cost reductions, open communications
- Add value to your professional career development
- Gain recognition from your peers
- You will have made an investment in your career and in the future of your employer
- You'll have a better understanding of factors that can directly affect your company's bottom line
- You'll be more valuable to your employer

Course Syllabus

- Introduction
- Total Welding Management
- Welding Training
- Productivity and Quality Improvement
- Welding and Cutting Process
- Quality Standards and Inspection
- Welding Health and Safety
- Base and Filler Metals
- Auditing, Monitoring and Reporting
- Welding Codes and Standards

PROGRAM FEES	MEMBER	NONMEMBER*
Seminar and Exam	\$1,550	\$1,630
Seminar Only	\$1,250	\$1,330
Exam Only	\$400	\$480

Prices are subject to change. Prices are reflective of applications received at least six weeks prior to the seminar/exam or exam. Applications received after that time will be assessed a \$250 Fast Track fee. *Nonmember price includes a one-year individual AWS membership.

Send a team and save! Send a group of three or more from your company to a CWS seminar and receive 10% off the registration fee.

Attendance at the five-day seminar is equivalent to 40 contact hours or Professional Development Hours (PDH).

The IRS grants an income tax reduction for educational expenses and the cost of travel, meals, and lodging if the purpose is to maintain or improve skills required in one's employment, trade or business, or to meet specific requirements for an employer or law imposed as a condition for employment.

Reference Materials

The examination questions may be taken from the following. Those in **red** (over \$500 value) are provided to participants at the AWS Welding Supervisor Seminars.

Total Welding Management® by Jack R. Barckhoff
AWS A2.4, Standard Symbols for Welding, Brazing, and Nondestructive Examination
AWS A3.0, Standard Welding Terms and Definitions

AWS B5.9, *Specification for the Qualification of Welding Supervisors* (free on website)

AWS ARE-12, Economics of Welding and Cutting
AWS Book of Specifications

AWS QC13, Specification for the Certification of Welding Supervisors

AWS CMWS:2005, Certified Welding Supervisor Manual for Quality and Productivity Improvement

Introduction to Welding Processes handout
NSRP Study (free on website)

ANSI Z49.1, *Safety in Welding, Cutting, and Allied Processes* (free on website)

Our AWS CWS seminars are led by true welding professionals who are experts in the field of welding management

Ed Bohnart - Edward R. Bohnart has over 35 years of fabrication supervision and managerial experience working at a variety of welding industry segments. Ed served as the AWS National President for 1995-1996. He is co-author of *Welding Principles & Practices* published by McGraw-Hill. Ed has authored articles in a variety of publications and has written and developed a variety of welding documents for various publishers. Ed holds an A.S. degree in Welding and Metallurgy from Nebraska Vocational Technical College and has studied at both the University of Nebraska at Omaha and the University of Omaha.

John Eaton — John P. Eaton has a diversified background with industrial experience in both welding engineering and manufacturing management. He holds bachelor's degrees in both Mechanical Engineering and Welding Engineering from LeTourneau University. John has experience in a variety of industries, including power generation, defense, electrical power distribution, construction, and mining equipment; and general fabrication. He has held positions in welding engineering, manufacturing engineering, testing, fabrication, and general management as well as sales and marketing.

Ken Kertuke — Kenneth M. Kerluka, P.E., has over 30 years of broad welding industry experience in manufacturing, fabrication, and quality assurance. Ken holds a bachelor's degree in mechanical engineering from the University of British Columbia, as well as a master's degree in Welding Engineering from the Cranfield Institute of Technology in the United Kingdom. Ken is a welding process specialist with experience in all arc welding processes.

Phil Schmidt - Phil Schmidt, P.E., has more than 35 years of experience in the welding industry. His experience includes positions as a welding engineer, manager of welding operations, consultant, and college instructor. Phil has worked in a variety of industries including aerospace, defense, shipbuilding, nuclear, automotive, material handling, and contract manufacturing. Phil has experience with a wide range of materials and welding processes, as well as robotic welding. He is a graduate of The Ohio State University with a bachelor's degree in Welding Engineering.

All Certified Welding Supervisor seminar instructors are consultants and trainers for Barckhoff Welding Management Corporation, and Mr. Bohnart also serves as an Adjunct Instructor for various other AWS seminars.

What others have said about the CWS program

"I have nothing but good reviews for the AWS Certification programs. I already certified for the CWI and CWE program before I took the CWS program. Recently, I was promoted to Project Coordinator at Diamond Offshore Drilling's Technical Services Department. I believe said promotion was based on my continuing effort to stay trained and qualified in as many areas as possible"... "I feel that my certifications I have received from AWS, as well as other organizations, are a major attribute to my advancement."

— **Gary Hayes, Project Coordinator, Diamond Offshore Drilling, Inc.**

"The class was helpful in every aspect of my career. The class was involved and detailed, from Safety to NDT to being able to figure out the cost of a weld (total labor time) and how much wire is going to be used. All the material discussed is useful for any welding professional. I find myself using what I've learned every day and I highly recommend the class."

— **Kevin Hess, Welding Supervisor – Steam Operations, Con Edison**

"I recommend that any business that has visions of reducing their cost of welding should seriously consider sending their key welding people to the CWS training offered by AWS and incorporating them into their company processes. Quality welds are essential but economically produced welds keeps one competitive."

— **Dale Jermyn, Director, Process Improvement and Training, Bender Shipbuilding & Repair Co.**

"It is a must for everyone who manages, designs, estimates, plans, purchases, inspects and supervises welders."

— **Jackie W. Morris, Quality Manager, Bender Shipbuilding & Repair Co**

"With my CWS training, I can help my company better meet deadlines and budgets by better educating those that can make the difference, the welders themselves. I have received numerous thank you's from the welders I talk to by taking the time to offer them advice, looking at their welding as a benefit to the company and not just a necessary part of manufacturing, and helping them to better the job that they do, no matter where they work. All in all, the CWS course has made me a better welding inspector and a better welder, too."

— **Michael S. Moore, Quality Assurance Inspector, Bender Shipbuilding & Repair Co.**

You may also want your company to take advantage of the AWS Certified Welding Fabricator program:

Just as the Certified Welding Supervisor program was created in response to industry demand, the AWS has also established a certification for welding fabricators based on industry demand. This certification requires a company to comply with welding-related functions and verifies through a third-party assessment, that the welding fabricator has the required personnel, organization, experience, procedures, knowledge, equipment, capability, and commitment.

Bundled together, these two programs can provide an excellent productivity and quality enhancement package.

For more information on the Certified Welding Fabricator Program, call 800-443-9353, ext. 448, or visit our website at www.aws.org/certification/FAB.