

YOUR STEP-BY-STEP PATHWAY TO CWEng

INTRODUCTION

Welding Engineers play a key role in designing, analyzing, and improving welding procedures and applications across industries. Earning the **Certified Welding Engineer (CWEng)** credential from the American Welding Society signifies that you have demonstrated the requisite knowledge and skill in welding engineering, encompassing design, materials, processes, and quality control. This guide walks you through each step in the process—from eligibility to renewal—so you can pursue the CWEng credential with confidence.

1 MAKE SURE YOU'RE ELIGIBLE

Before you apply, confirm that you meet AWS's education and experience requirements:

You'll need either combination:

- Bachelor of Science or higher in engineering: Minimum of one year of welding-based work experience.
- Bachelor of Science in engineering technology: Minimum of two years of welding-based work experience.
- Other related Bachelor of Science degrees: Minimum of five years of welding-based work experience.
- Associate in Applied Science (A.A.S.) degree: Minimum of 10 years of welding-based work experience.
- High school diploma or equivalent: Minimum of 15 years of welding-based work experience.

Your experience should include significant technical responsibility in areas such as design, manufacturing, fabrication, construction, research and development, and training.

2 SUBMIT YOUR APPLICATION

- [ ] **Log in to your AWS account** at **my.aws.org** and navigate to the **Certifications** section in your dashboard.
- [ ] Click on the **application wizard** for CWEng. This digital wizard walks you through every step—including uploading documents, completing education/work history fields, and paying the fee.
- [ ] **Digitally attach all required documentation** (PDF, JPG, PNG, etc.) for transcripts, resume/work history, photo ID (if required), and other documentation. Each uploaded file typically must be under ~5 MB.
- [ ] **Submit payment** securely through the portal—no check or mailed payment needed unless you choose to submit offline (which adds a $125 fee).



! **Pro Tip:** Your work experience will be reviewed to determine your eligibility for each of the four exam parts. Be thorough and specific when describing your roles and responsibilities.

3 PREPARE FOR THE EXAM

With four in-depth sections, the CWEng exam demands both breadth and depth of welding engineering knowledge. Each section covers a specific area of welding engineering, based on the official CWEng Body of Knowledge, AWS Standard **B5.16-2025: Specification for the Qualification of Welding Engineers**.

The four sections are:

1. **Fundamentals of Science and Mathematics**
2. **Applied Science and Welding Fundamentals**
3. **Welding-Related Disciplines Examination**
4. **Practical Welding Engineering Applications**



Candidates must successfully pass all four parts of the examination within three (3) years of application approval. Completion and passing of Parts 1 and 2 are required prior to attempting Parts 3 and 4..

A well-matched study plan makes all the difference. Some candidates work independently; others lean on peer support or formal instruction. Some candidates dive into the material solo, while others tap into team support or formal instruction. Options include:



- In Person Courses
- Online Instructor -Led Learning
- Self-Paced Online Courses

4 TAKE THE EXAM

After application approval, AWS sends instructions to schedule exams through Prometric, the nationwide testing provider. What to expect on exam day:

- The exam consists of four parts: two parts may take up to three hours each, and the other two parts may take up to two hours each.
- Parts 1 and 2 are closed book exams, parts 3 and 4 are open book exams.
- Part 1 and Part 2 must be successfully completed to take Part 3 and Part 4.
- Rescheduling or cancellation policies require at least forty-eight (48) hours before the exam date, or exam fees are forfeited.

5 MAINTAIN YOUR CWEng STATUS

CWEng certification is valid for five years. To maintain your status:

- [ ] Submit a renewal application before your expiration date
- [ ] Provide documentation showing successful completion of continued education every five years, totaling 80 contact hours or a combination of contact hours and continuing education unitsrelated to the functions defined in **AWS B5.16**.
- No additional exam is required to renew

6 WHAT'S NEXT?

The CWEng credential can support advancement in roles that require deep technical insight, leadership and code-level accountability. Welding Engineers often contribute to:

- Welding procedure and design development
- QA/QC program leadership
- Consulting and expert analysis
- Construction and manufacturing project oversight

READY TO GET STARTED?
LEARN MORE ABOUT CWEng CREDENTIALS

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