INSTITUTE OF MATERIALS, MALAYSIA

IMM Welding Certification Scheme

IMM-JWES Certified Associate Welding Engineer/Welding Engineer/Senior Welding Engineer

Code: AWE/WE/SWE *HRDF claimable*

The Institute of Materials, Malaysia (IMM) in collaboration with the Japan Welding Engineering Society (JWES) will conduct courses and examinations required for the certification of ASSOCIATE WELDING ENGINEER (AWE), WELDING ENGINEER (WE) & SENIOR WELDING ENGINEER (SWE). JWES is an organisation accredited by the Japan National Accreditation Board (JNAB) to certify personnel according to the requirements of ISO/IEC 17024.

Reference standards (reference used shall refer to the latest published document):

- ISO 14731: Welding Coordination - Tasks and Responsibilities
- WES 8013: Standard for Certification of Welding Coordinators

Who should apply

This certification scheme is intended for professionals with working experience in welding and fabrication, who are willing to upgrade their skills according to international standards.

Objectives

- To provide training, knowledge and examination required for the Welding Engineer Certification in accordance with JWES-WES 8013: Standard of Certification of Welding Coordination Personnel and ISO 14731: Welding Coordination Tasks and Responsibilities
- To provide participants with advanced certification of Associate Welding Engineer (AWE), Welding Engineer (WE) & Senior Welding Engineer (SWE) for aspiring leaders / instructors to produce skilled welding engineers in the future
- To diversify the participants' capability through exercises in this training course

Exam topics

ASSOCIATE WELDING ENGINEER (AWE)

1. Welding processes and equipment
2. Materials and their behaviour during welding
3. Design and construction
4. Fabrication and application engineering

WELDING ENGINEER (WE)

1. Advanced welding processes and equipment
2. Advanced materials and their behaviour during welding
3. Advanced design and construction
4. Advanced fabrication and application engineering

SENIOR WELDING ENGINEER (SWE)

1. Welding processes and equipment
2. Materials and their behaviour during welding
3. Design and construction
4. Welding design & fabrication of frame structures
5. Welding design & fabrication of vessels

Examination format

AWE: Written examination

WE: Written examination
SWE: Written & oral examinations

Examination duration

AWE: 2 hours 30 minutes
WE: 2 hours 30 minutes
SWE: 1-day

Examination fee

As specified on the IMM website.

Candidate's criteria

Candidate should have

ASSOCIATE WELDING ENGINEER (AWE)

- Degree in Science/Engineering with 1 year working experience in the welding related field OR
- Degree in other than Science/Engineering with 2 years working experience in the welding related field OR
- Diploma in Science/Engineering/Technology with 1 year working experience in the welding related field OR
- Vocational graduate in Science/Engineering with 2 years working experience in the welding related field OR
- SPM or equivalent with 4 years working experience in the welding related field

WELDING ENGINEER (WE)

- Degree in Science/Engineering with 2 years working experience in the welding related field OR
- Degree in other than Science/Engineering with 4 years working experience in the welding related field OR
- Diploma in Science/Engineering/Technology with 4 years working experience in the welding related field OR
- Vocational graduate in Science/Engineering with 7 years working experience in the welding related field OR
- SPM or equivalent with 8 years working experience in the welding related field OR
- Associate Welding Engineer certificate holder with 3 years working experience in the welding related field

SENIOR WELDING ENGINEER (SWE)

- Degree in Science/Engineering with 3 years working experience in the welding related field OR
- Degree in other than Science/Engineering with 6 years working experience in the welding related field OR
- Diploma in Science/Engineering/Technology with 6 years working experience in the welding related field OR
- Welding Engineer certificate holder with 3 years working experience in the welding related field

Pre-requisite training

A candidate without experience is required to attend IMM approved/recognized training course, as follows: Associate Welding Engineer training course with a minimum duration of 5 days (40 hours), or Welding Engineer training course with a minimum duration of 5 days (40 hours), or Senior Welding Engineer training course with a minimum duration of 6 days (48 hours) which prepares and provides comprehensive guidance and practice aligned to the topics covered in the examination.

A candidate with experience is encouraged to attend an IMM approved/recognized AWE/WE/SWE training course for examination preparation and scheme alignment.

Note: Evidence of training completion (where applicable) shall be submitted to the IMM prior to examination approval.

Criteria for certification
Pass the examination with a minimum total mark of 70% for each assessment.

Certificate awarded
IMM-JWES Certified Associate Welding Engineer
IMM-JWES Certified Welding Engineer
IMM-JWES Certified Senior Welding Engineer

Validity period of certificate
5 years

Re-sit of examination
A candidate who had failed in one or more of the examination parts can apply to re-sit for the failed component(s) of the examination within a year from the date of the first examination. The candidate shall have to pay the full examination fee for the re-sit and without the need to attend any pre-requisite training course.

Information on re-certification
WE Certification System specifies the Term of Registration and the Initial Term of Validity.

The Term of Registration is Five (5) years. After 5 years, a candidate must go through Re-certification Procedure.
The Initial Term of Validity is Two (2) years. After 2 years, a candidate must go through Surveillance Procedure.

Surveillance Procedure
Surveillance is conducted by assessment of job engagement in the initial term of validity, especially during the period of 6 months to 3 months before the expiring date. The new certificate is valid for 3 years from the next day of the expiring date of the old one.

Re-certification Procedure
Re-certification is conducted by assessment of job engagement in 3 years after Surveillance and Seminar about latest welding technology and written examination held in from 12 months to 2 months before the expiring date. The new certificate is valid for 2 years from the next day of the expiring date of the old one.