



### Fees:

**Fees for training course :**  
20,000/- taka only

### Payment Details:

**The account details of MRC for Payment:**  
Account name: Materials Research Center  
Account No: 4404002000802  
Sonali Bank Limited  
BUET branch, Dhaka



### Date & Time

16 -20 February, 2025



## Course for Welding Coordinators

### Course Overview

The two-day training program mainly focuses on applications of materials and corrosion in industries, applications of steels, corrosion manifestations, thermodynamics & kinetics of corrosion, analysis of corrosion failures, corrosion control management, pipeline corrosion, cathodic protection, etc. The focus of the course would be to develop an understanding of corrosion, corrosion prevention, and management technology at the national/international industry level and as professionals with an aim to create corrosion expertise. Every subject would have experts' lectures from globally renowned experts & professionals including BUET faculty members.

### Contact Information:



**MATERIALS RESEARCH CENTRE**

Old Academic Building (OAB),  
BUET, Dhaka-1000

01733-892419



## Training Course for Welding Coordinators

Organised by:



**MATERIALS RESEARCH CENTRE**  
OAB, BUET, Dhaka-1000

In association with-

**GLOBAL TALENT CATALYST**

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# Training Course for Welding Coordinators

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## Training Course for Welding Coordinators

### Course Objectives

**By the end of this training, participants will:**

- Understand the key responsibilities and roles of a Welding Coordinator.
- Learn how to create, review, and manage Welding Procedure Specifications (WPS) and Procedure Qualification Records (PQR).
- Gain skills in managing welding teams, overseeing welding processes, and ensuring quality standards are met.
- Implement safety protocols and ensure compliance with health, safety, and environmental standards.

### Stakeholders (Who Should Attend)

Personnel involved in welding activities in industries such as oil & gas, shipbuilding, construction, aerospace, automotive, and manufacturing such as Welding Engineers, Production Supervisors, Quality Assurance (QA) and Quality Control (QC) personnel, Workshop Managers, Maintenance Engineers.

## Course Content (Theory and Practical)

### 1. Introduction to Welding Coordination and Standards

- The role of Welding Coordinators in industrial projects.
- Overview of welding processes (MIG, TIG, SMAW, FCAW, SAW).
- Introduction to international welding standards (ISO 14731, AWS D1.1, ASME Section IX).

### 2. Welding Procedure Specifications (WPS) and Procedure Qualification Records (PQR)

- Developing and qualifying WPS and PQR based on international standards.
- Essential variables and parameters that affect welding procedures.
- Material selection, joint design, and filler materials.
- Creating sample WPS and PQR.
- Reviewing real-world WPS and PQR documentation for compliance.

### 3. Welding Metallurgy and Material Properties

- Basic principles of welding metallurgy and how it impacts weld quality.
- Effects of heat input, cooling rates, and alloy selection.
- Common welding defects caused by metallurgical issues (cracking, porosity, inclusions).
- Metallurgical testing (hardness tests, tensile tests).
- Identifying weld defects through visual inspection and destructive testing.

### 4. Quality Control and Non-Destructive Testing (NDT)

- Introduction to welding quality control principles.
- Overview of Non-Destructive Testing (NDT) methods (Ultrasonic Testing, Radiographic Testing, Magnetic Particle Testing, Dye Penetrant Testing).
- Importance of documentation, traceability, and weld mapping.
- Conducting visual inspections of welds.
- Hands-on demonstration of NDT methods and techniques.

### 5. Health, Safety, and Environmental Compliance in Welding

- Overview of welding safety standards (ISO 3834, OSHA).
- Health risks in welding (fumes, UV radiation, noise) and how to mitigate them.
- Environmental considerations in welding (waste disposal, fume extraction, energy efficiency).
- Demonstration of safe welding practices (PPE, hazard identification, and risk management).
- Conducting a mock safety inspection in a welding environment.

### 6. Team Management, Workflow Coordination, and Troubleshooting

- Managing and coordinating welding teams to ensure productivity and efficiency.
- Strategies for improving workflow and minimizing production downtime.
- Troubleshooting common welding issues (distortion, lack of fusion, excessive spatter).
- Group activities to simulate team coordination and task management.
- Real-life case studies focusing on problem-solving and troubleshooting in welding coordination.

### Assessment and Certification

**Written Test:** To assess theoretical understanding of welding standards, WPS/PQR, and safety protocols.

**Practical Assessment:** Participants will be evaluated on their ability to inspect welds, perform NDT, and troubleshoot welding issues.

**Certification:** Upon successful completion of the course and assessments, participants will be awarded a "Welding Coordinator" certificate that acknowledges their competence in welding coordination, enabling them to coordinate welding activities in line with international best practices and industry standards.

