

Gas Metal Arc Welding NC II

Course Description

This course is designed to enhance the knowledge, desirable attitudes and skills of a GMAW welder in accordance with industry standards. It covers core competencies welding carbon steel pipe using GMAW. It includes common competencies in applying safety practices, interpreting drawing and sketches, perform industry calculations, contribute to quality system, use hand tools, prepare weld materials, setting up welding equipment, fit up weld materials and repairing welds. It also includes competencies such as, participating in workplace communication, work in a team environment, practice career professionalism and practice occupational health and safety procedure.

Nominal Duration

- Basic Competencies 64 hrs.
- Common Competencies 56 hrs.
- Core Competencies 200 hrs.
- Empowerment Course 80 hrs.

TOTAL 400 hrs.

A person who has achieved this qualification is competent to be:

Plate and Pipe Welder

TRAINEE ENTRY REQUIREMENTS:

- At least 15 years of age
- Physically and mentally fit
- Can communicate in English. Both Oral and Written
- Must undergo Career Profiling and Trainability Evaluation

TWC Training is guided by the ten (10) basic principles of Competency-Based Training (CBT) delivery.

1. The training is based on curriculum developed from the competency standards;
2. Learning is modular in its structure;
3. Training delivery is individualized and self-paced;
4. Training is based on work that must be performed;
5. Training materials are directly related to the competency standards and the curriculum modules;
6. Assessment is based in the collection of evidence of the performance of work to the industry required standard;
7. Training is based on both on and off-the-job components;
8. Allows for recognition of prior learning (RPL) or current competencies;
9. Training allows for multiple entry and exit; and
10. Approved training programs are Nationally Accredited

Course Structure

BASIC COMPETENCIES

Unit of Competency	Module Title	Learning Outcomes	Nominal Duration
• Work in a team environment	• Observing gender sensitivity in the workplace	<ul style="list-style-type: none"> • Discuss the differences between sex and gender • Discuss gender identity & sexual orientation • Analyse the different manifestations of gender inequality in TVET and in society • Discuss gender & rights based approach to sexual & reproductive health including HIV-AIDS awareness and prevention 	16 hrs
	• Working in a team environment	<ul style="list-style-type: none"> • Describe team role and scope • Identify individual role & responsibilities within a team • Develop effective workplace relationship including personal values & beliefs related to gender • Work as a team member • Contribute to work group activities 	6 hrs
• Participate in workplace communications	• Participating in workplace communications	<ul style="list-style-type: none"> • Follow routing spoken messages • Perform workplace duties following written notices • Obtain and convey workplace information • Complete relevant work-related documents • Participate in workplace meeting and discussion applying gender-fair language 	6 hrs
	• Demonstrating work and entrepreneurial values and gender sensitivity	<ul style="list-style-type: none"> • Describe the purpose of work and enterprise • Identify and deal with ethical problems • Apply work and entrepreneurial values and gender sensitivity • Maintain integrity of conduct in the workplace 	10 hrs
• Practice career professionalism	• Practicing career professionalism	<ul style="list-style-type: none"> • Integrate gender perspectives with personal and organizational goals • Set and meet work priorities • Maintain professional growth and development 	6 hrs
	• Practicing basic housekeeping procedures	<ul style="list-style-type: none"> • Sort and remove unnecessary items • Arrange items • Maintain work areas, tools and equipment • Follow standardized work process and procedures • Perform work spontaneously 	8 hrs
• Practice occupational health and safety procedures	• Practicing occupational health and safety procedures	<ul style="list-style-type: none"> • Identify hazards and risks • Evaluate hazards and risks • Control hazards and risks • Maintain occupational health and safety awareness including women's issues/ concerns relative to OSH 	12 hrs

Course Structure

COMMON COMPETENCIES

Unit of Competency	Module Title	Learning Outcomes	Nominal Duration
• Apply safety practices	• Applying safety practices	<ul style="list-style-type: none"> • Identify hazardous area • Use personal protective clothing and devices • Perform safe handling of tools, equipment and materials • Perform first aid • Use Fire extinguisher 	8 hrs
• Interpret drawing and sketches	• Interpreting drawing and sketches	<ul style="list-style-type: none"> • Identify standard alphabet of lines • Identify orthographic/ isometric views • Interpret standard drawing symbols, dimensional tolerances and notations 	8 hrs
• Perform industry calculation	• Performing industry calculation	<ul style="list-style-type: none"> • Perform four fundamental operations. • Perform conversion of units • Perform calculations on algebraic expressions • Compute percentage and ratio 	8 hrs
• Contribute to quality system	• Contributing to quality system	<ul style="list-style-type: none"> • Inspect work done • Apply quality standards to work • Protect company property and customer interests 	4 hrs
• Use hand-tools	• Using hand-tools	<ul style="list-style-type: none"> • Select hand tools • Use hand tools • Maintain hand tools 	4 hrs
• Prepare weld materials	• Preparing weld materials	<ul style="list-style-type: none"> • Set up cutting equipment • Cut and prepare edge of materials • Prepare welding consumables • Clean surfaces and edges • Prepare welding safety and protective equipment 	8 hrs
• Set-up welding equipment	• Setting-up welding equipment	<ul style="list-style-type: none"> • Set up welding machine • Set up welding accessories • Set up welding positioners, jigs and fixtures 	4 hrs
• Fit-up materials	• Fitting-up materials	<ul style="list-style-type: none"> • Perform tack welding • Check gap and alignment 	4 hrs
• Repair weld	• Repairing weld	<ul style="list-style-type: none"> • Mark/locate weld defects • Prepare tools and equipment • Remove defects • Perform re-welding 	8 hrs

Course Structure

CORE COMPETENCIES

Unit of Competency	Module Title	Learning Outcomes	Nominal Duration
• Weld carbon steel plates	• Performing groove welding on carbon steel plates	• Weld steel plates in 4G position	40 hrs
• Weld carbon steel pipes	• Performing groove welding on carbon steel pipes	• Weld carbon steel pipe in flat position (2G) • Weld carbon steel pipe in horizontal position (5G) • Weld carbon steel pipe in vertical position (6G)	160 hrs



TESDA Women's Center

VISION

"TESDA Women's Center is the lead TVET Institution of excellence in empowering Filipino women."

MISSION

"As the lead TVET Institution of excellence in women empowerment, TESDA Women's Center advocates and provides programs and services geared towards quality-assured, inclusive and gender-fair TVET."

GAS METAL ARC WELDING NC II



For inquiries, please call us at

Telephone Numbers: 887-7777 or 817-2650

Email address: twc@tesda.gov.ph

Website: <http://www.tesda.gov.ph>

Facebook: <http://www.facebook.com/TESDAWomenCenter>

Gate 1, TESDA Complex, East Service Road, South
Superhighway, Taguig City