

Vocational Training Council
Pro-Act Training and Development Centre (Welding)

Course Curriculum

Course Title:	Preparation Training for Trade Test of General Welder (NCS)
Course code:	WE5106063
Offered By:	Pro-Act Training and Development Centre (Welding)
Location:	Level 7, Block B, 13-19 San Kwai Street, VTC Kwai Chung Complex, Kwai Chung, NT.
Skill Level:	Operative
Class Size:	12
Duration:	60 hours (24 evenings)
Course Mode:	Part-time evening
Medium of Instruction:	English

Course Objective

After completion of the course, trainees will be able to know the requirements of the trade test in General Welder and perform the tasks that are required in the trade test.

Target Group

The course has been designed for Certificate holders of General Welders (Intermediate) or who completed 'The Preparation Training for Intermediate Trade Test of Welder', course code : WE5106053.

Course Outline

- (1) Review and recognize the use and the safety precautions of all equipment, tools and accessories used in manual metal arc welding (MMAW) and oxy-acetylene cutting (OAC).
- (2) Review and recognize the definition and basic operating principles of MMAW.
- (3) Review and recognize the advantages and limitations of MMAW.
- (4) Recognize the welding parameters that affect weld bead geometry, such as welding current, electrode size, arc length, travel speed, electrode orientation, types of welded joints, etc.
- (5) Recognize the influences of power source characteristics and arc characteristic, such as volt-amp characteristic, arc length characteristic, constant current and constant voltage characteristics, etc.

- (6) Recognize and distinguish the functions, specifications and selection of mild steel welding electrodes.
- (7) Recognize the general defects and its preventive methods, such as undercut, overlap, porosity, etc.
- (8) Recognize the drawings and welding symbols, etc.
- (9) Recognize different welding processes and materials that commonly used in welding related industries.
- (10) Recognize the functions of preheat, post-heat and cooling rate of special carbon steel.
- (11) Recognize the distortion and stress induced by welding process and know the methods of prevention.
- (12) Recognize the basic knowledge of electricity.
- (13) Recognize and know the safety practice in welding industry, such as PPE, handling of cylinders, work in confined space, emergency preparedness of electric shock, as well as relevant safety regulations and ordinance.
- (14) Make use of MMAW and OAC technique to joint and cut steel parts as follows:
 - Butt weld, flat position
 - Fillet weld, horizontal/vertical position
 - Fillet weld, overhead position
 - Fillet weld, vertical-up position
 - Corner weld, outside, horizontal/vertical position
 - Corner weld, outside, overhead position
 - Cutting straight line and circle on mild steel plate

Entry Requirements

Supported by Nepalese Construction Workers Union, Hong Kong (NCWUHK) or employed in the relevant trades and sponsored by their employers, and

1. Certificate holders of General Welders (Intermediate) or
2. Completed 'The Preparation Training for Intermediate Trade Test of Welder', course code : WE5106053, and
3. Certificate holders of 'Gas Welding Safety Training Course'

Attendance Requirement

Trainee with attendance less than 70% is considered to not complete the course.

Award

An attendance certificate will be awarded upon completion of the course.

Evaluation

Survey will be taken from trainees in form of questionnaire at the end of the course.