



Section I: Theoretical and Practical Education – Part 1, Part 2 and Part 3, Syllabus and Performance Objectives

(Figures are teaching hours. Those after “P1=” are maximum teaching hours which can be included in Part 1)

1.1. Theoretical Education - Part 1 and Part 3

Module 1: Welding processes and equipment

Subject Title	Qualification Level *			
	(Training Hours Part 3+Part 1/Part 1 –Training Hours)			
	IWE	IWT	IWS	IWP
1.1 - General introduction to welding technology	3/3	3/3	1/1	1/1
1.2 Oxy-gas Welding and related processes	2/2	2/2	2/2	2/2
1.3 Electrotechnics, a review	2/2	2/2	2/2	2/2
1.4 The arc	4/4	4/4	1/0	1/0
1.5 Power sources for arc welding	4/4	4/4	3/1	2/1
1.6 Introduction to gas shielded arc welding	2/2	2/2	2/2	2/2
1.7 TIG Welding	6/4	6/4	4/2	2/2
1.8 MIG/MAG and Flux Cored Arc Welding	6/4	6/4	4/2	2/2
1.9 MMA Welding	8/4	6/4	4/2	2/2
1.10 Submerged-Arc Welding	6/4	4/4	2/0	2/0
1.11 Resistance Welding	8/0	6/0	2/0	0/0
1.12.1 Other Welding Processes – LASER; Electron Beam; Plasma	5/0	3/0	2/0	1/0
1.12.2 Other Welding Processes, other than 1.12.1	5/0	3/0	2/0	1/0
1.13 Cutting and other edge preparation processes	4/2	4/2	2/0	2/0
1.14 Surfacing and Spraying	2/0	2/0	1/0	0/0
1.15 Fully mechanised processes and robotics	6/0	4/0	2/0	0/0
1.16 Brazing and soldering	4/0	4/0	2/0	0/0
1.17 Joining processes for plastics	4/0	2/0	1/0	0/0
1.18 Joining processes for ceramics and composites	2/0	1/0	0/0	0/0
1.19 Welding laboratory	10/0	8/0	6/0	0/0
Total	93/35	76/35	45/14	22/14

* P1 = Part 1, Figures under P1 are given for the Standard Route (see 4.1)