

## **Course Outline: National Certificate in Engineering Fabrication: NQF Level 2**

**Course Code: C.C.007**

### **Admission Requirements**

NQF Level 1 / ABET Qualification.

### **Course Content**

<b>ID</b>	<b>UNIT STANDARD TITLE</b>	<b>LEVEL</b>	<b>CREDITS</b>
243067	Cut materials using the oxy-fuel gas cutting process (manual cutting)	Level 2	6
243075	Draw and interpret simple plate, pipe and structural steel plate, pipe and structural steel drawings	Level 2	6
12240	Form and shape sheetmetal using hand or power operated machines	Level 2	8
244345	Identify fabrication materials, their characteristics and applications used in engineering	Level 2	4
244342	Measure and mark off steel profiles	Level 2	2
12239	Mechanically cut, drill and punch fabrication materials.	Level 2	10
13214	Operate and monitor a drilling machine to produce simple components	Level 2	6
119744	Select, use and care for engineering hand tools	Level 2	8
12476	Select, use and care for engineering measuring equipment	Level 2	4
12219	Select, use and care for engineering power tools	Level 2	6
12481	Sling loads	Level 2	4
243063	Weld carbon steel work-pieces using the shielded metal arc welding process in the down-hand position.	Level 2	15
243072	Weld workpieces using the oxy-acetylene gas welding process in the down-hand position	Level 2	10
9443	Work safely and use safety equipment	Level 2	7
12246	Assemble and mechanically join sheet, plate, tube, pipe and steel sections	Level 3	4
119463	Access and use information from texts	Level 2	5
9009	Apply basic knowledge of statistics and probability to influence the use of data and procedures in order to investigate life related problems	Level 2	3
12461	Communicate at work	Level 2	5
7480	Demonstrate understanding of rational and irrational numbers and number systems	Level 2	3
119454	Maintain and adapt oral/signed communication	Level 2	5
12444	Measure, estimate and calculate physical quantities and	Level 2	3

	explore, describe and represent geometrical relationships in 2-dimensions in different life or workplace contexts		
7469	Use mathematics to investigate and monitor the financial aspects of personal and community life	Level 2	2
9007	Work with a range of patterns and functions and solve problems	Level 2	5
119456	Write/present for a defined context	Level 2	5
117867	Managing files in a Graphical User Interface (GUI) environment	Level 1	3
116932	Operate a personal computer system	Level 1	3
117902	Use generic functions in a Graphical User Interface (GUI)-environment	Level 1	4
115101	Address workplace hazards and risks	Level 2	4
116520	Apply safety, health and environmental principles and procedures in a workplace	Level 2	2
14683	Apply work site practices	Level 2	5
10824	Bend a pipe by means of a hydraulic pipe bender	Level 2	2
10768	Cut material by means of lancing	Level 2	3
116533	Demonstrate basic knowledge and understanding of emergency preparedness and response	Level 2	2
110205	Demonstrate knowledge of the Mine Health and Safety Act, regulations and definitions	Level 2	5
253374	Describe the chemical Industries composition, it's regulatory requirements and communication techniques	Level 2	2
12465	Develop a learning plan and a portfolio for assessment	Level 2	6
12466	Explain the individual`s role within business	Level 2	4
244340	Fasten components by means of swage lock bolts (Huck bolt)	Level 2	1
9678	Follow basic health and safety practices underground	Level 2	5
12482	Join metals using the resistance welding process	Level 2	4
9268	Manage basic personal finance	Level 2	6
116235	Operate a pendant controlled overhead crane	Level 2	5
12484	Perform basic fire fighting	Level 2	4
12483	Perform basic first aid	Level 2	4
115547	Replace conveyor belt steel structures (stringers, cradles)	Level 2	3
10848	Replace liners in a transfer chute	Level 2	2
12463	Understand and deal with HIV/AIDS	Level 2	3
14713	Use welding definitions and symbols	Level 2	5
243056	Weld carbon steel workpieces using the shielded metal arc welding process in all positions	Level 2	16
243064	Weld carbon steel workpieces, using the gas metal arc welding	Level 2	15

	process in all positions		
115093	Control workplace hazardous substances	Level 3	4
244339	Mark off and fabricate sections using the contour marker method	Level 3	9
243053	Weld carbon steel workpieces using the oxy-acetylene gas welding process in all positions	Level 3	10