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**Core Skills Signposting**

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| **Sector** | **Engineering** |
| **Qualification Title(s)** | **SVQs in Fabrication and Welding Engineering at SCQF levels 5 and 6** |
| **Developed by** | **Enginuity** |
| **Approved by ACG** | **24 February 2021** |
| **Version** | **1** |

## Introduction

Core Skills signposting indicates if there are opportunities within units to develop Core Skills in the workplace to a specified SCQF level. The signposting document should also acknowledge where there are no opportunities to develop Core Skills. This signposting can be used by providers and assessors to plan the development and assessment of Core Skills.

The five Core Skills are:

* Communication
* Information and Communication Technology
* Numeracy
* Problem Solving
* Working with Others

**Note**

The signposting shows where the evidence generated against the NOS is also likely to cover some/all of the Core Skill. These areas are marked with a ✓.

There is a high level of consistency across the signposting. This reflects the consistency of the wording in the NOS.

It can be seen that evidence generated against the NOS is also likely to cover some/all of the Core Skills in

* Communication
* Numeracy
* Problem Solving
* Working with Others

The obvious and only real ‘gap’ is in the Core Skill for Information and Communication Technology (ICT) where it has been assumed that those working at these levels will have their work instruction given to them rather than having to go into a system, finding it, interpreting it, printing it and then confirming completion and updating files through use of IT systems.

The single exception is SEMFWE366 (Operating CNC Fabrication Equipment) where the operation of the CNC (Computer Numerically Controlled) equipment requires, implicitly, the skills and knowledge to operate an ICT system.

## Core Skills Signposting

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| Qualification or Suite Title: **SVQ Fabrication and Welding Engineering at SCQF Level 5** | | **Workplace Core Skills at SCQF level 4** | | | | |
| URN | Unit title | Comms | ICT | Numeracy | PS | WWO |
| SEMMAN12301 | Complying with statutory regulations and organisational safety requirements | ✓ |  |  | ✓ |  |
| SEMMAN2302 | Using and interpreting engineering data and documentation | ✓ | ✓ | ✓ | ✓ |  |
| SEMMAN2303 | Working efficiently and effectively in engineering | ✓ |  |  | ✓ | ✓ |
| SEMFWE204 | Joining materials by the manual metal arc welding process | ✓ |  | ✓ | ✓ | ✓ |
| SEMFWE205 | Joining materials by the semi-automatic MIG/MAG and flux cored arc processes | ✓ |  | ✓ | ✓ | ✓ |
| SEMFWE206 | Joining materials by the manual TIG and plasma-arc welding processes | ✓ |  | ✓ | ✓ | ✓ |
| SEMFWE221 | Marking out components for fabrication | ✓ |  | ✓ | ✓ | ✓ |
| SEMFWE222 | Cutting sheet metal to shape using hand and machine tools | ✓ |  | ✓ | ✓ | ✓ |
| SEMFWE223 | Forming sheet metal using hand and machine tools | ✓ |  | ✓ | ✓ | ✓ |
| SEMFWE224 | Producing sheet metal assemblies | ✓ |  | ✓ | ✓ | ✓ |
| SEMFWE228 | Assembling components using mechanical fasteners | ✓ |  | ✓ | ✓ | ✓ |
| SEMFWE233 | Cutting materials using hand operated thermal cutting equipment | ✓ |  | ✓ | ✓ | ✓ |
| SEMFWE235 | Cutting materials using saws and abrasive discs | ✓ |  | ✓ | ✓ | ✓ |
| SEMFWE236 | Bending and forming plate using power operated machines | ✓ |  | ✓ | ✓ | ✓ |
| SEMFWE238 | Producing platework assemblies | ✓ |  | ✓ | ✓ | ✓ |
| SEMFWE239 | Producing holes using drilling machines | ✓ |  | ✓ | ✓ | ✓ |
| SEMFWE241 | Producing structural steel ancillary components | ✓ |  | ✓ | ✓ | ✓ |
| SEMFWE242 | Assembling structural steelwork | ✓ |  | ✓ | ✓ | ✓ |
| Qualification or Suite Title: **SVQ Fabrication and Welding Engineering at SCQF Level 6** | | **Workplace Core Skills at SCQF level 5** | | | | |
| URN | Unit title | Comms | ICT | Numeracy | PS | WWO |
| SEMMAN12301 | Complying with statutory regulations and organisational safety requirements | ✓ |  |  | ✓ |  |
| SEMMAN2302 | Using and interpreting engineering data and documentation | ✓ | ✓ | ✓ | ✓ |  |
| SEMMAN2303 | Working efficiently and effectively in engineering | ✓ |  |  | ✓ | ✓ |
| SEMFWE304 | Welding materials by the manual metal arc process | ✓ |  | ✓ | ✓ | ✓ |
| SEMFWE305 | Welding materials by the semi-automatic MIG/MAG and flux cored arc processes | ✓ |  | ✓ | ✓ | ✓ |
| SEMFWE306 | Welding materials by the manual TIG and plasma arc welding process | ✓ |  | ✓ | ✓ | ✓ |
| SEMFWE308 | Welding pipe/tube using multiple manual arc welding processes | ✓ |  | ✓ | ✓ | ✓ |
| SEMFWE309 | Welding plate using multiple manual arc welding processes | ✓ |  | ✓ | ✓ | ✓ |
| SEMFWE310 | Preparing mechanised arc welding equipment for production | ✓ |  | ✓ | ✓ | ✓ |
| SEMFWE311 | Preparing resistance spot, seam and projection welding machines for production | ✓ |  | ✓ | ✓ | ✓ |
| SEMFWE316 | Welding materials with mechanised arc welding equipment | ✓ |  | ✓ | ✓ | ✓ |
| SEMFWE317 | Welding materials using resistance spot, seam and projection welding machines | ✓ |  | ✓ | ✓ | ✓ |
| SEMFWE322 | Marking out components for metalwork | ✓ |  | ✓ | ✓ | ✓ |
| SEMFWE323 | Cutting sheetmetal to shape using hand and machine tools | ✓ |  | ✓ | ✓ | ✓ |
| SEMFWE324 | Forming sheetmetal using hand and machine tools | ✓ |  | ✓ | ✓ | ✓ |
| SEMFWE325 | Producing sheetmetal assemblies | ✓ |  | ✓ | ✓ | ✓ |
| SEMFWE327 | Developing and marking out templates for metalwork | ✓ |  | ✓ | ✓ | ✓ |
| SEMFWE328 | Joining fabricated components using mechanical fasteners | ✓ |  | ✓ | ✓ | ✓ |
| SEMFWE329 | Bonding engineering materials using adhesives | ✓ |  | ✓ | ✓ | ✓ |
| SEMFWE331 | Producing fillet welded joints using a manual welding process | ✓ |  | ✓ | ✓ | ✓ |
| SEMFWE332 | Cutting plate and sections using shearing machines | ✓ |  | ✓ | ✓ | ✓ |
| SEMFWE333 | Cutting and shaping materials using portable thermal cutting equipment | ✓ |  | ✓ | ✓ | ✓ |
| SEMFWE334 | Cutting materials using saws and abrasive discs | ✓ |  | ✓ | ✓ | ✓ |
| SEMFWE335 | Bending and forming plate using press brakes or bending machines | ✓ |  | ✓ | ✓ | ✓ |
| SEMFWE336 | Forming platework using power rolling machines | ✓ |  | ✓ | ✓ | ✓ |
| SEMFWE337 | Producing and finishing holes using drilling machines | ✓ |  | ✓ | ✓ | ✓ |
| SEMFWE338 | Producing platework assemblies | ✓ |  | ✓ | ✓ | ✓ |
| SEMFWE339 | Slinging, lifting and moving materials and components | ✓ |  | ✓ | ✓ | ✓ |
| SEMFWE340 | Forming structural sections using machines | ✓ |  | ✓ | ✓ | ✓ |
| SEMFWE341 | Producing structural steel ancillary components | ✓ |  | ✓ | ✓ | ✓ |
| SEMFWE342 | Producing major structural components/sub-assemblies | ✓ |  | ✓ | ✓ | ✓ |
| SEMFWE343 | Erecting structural steelwork | ✓ |  | ✓ | ✓ | ✓ |
| SEMFWE344 | Forming pipework by machine bending | ✓ |  | ✓ | ✓ | ✓ |
| SEMFWE345 | Producing pipe fabrications | ✓ |  | ✓ | ✓ | ✓ |
| SEMFWE346 | Producing socket and flange fillet welded joints in pipe using a manual welding process | ✓ |  | ✓ | ✓ | ✓ |
| SEMFWE366 | Operating CNC fabrication equipment | ✓ | ✓ | ✓ | ✓ | ✓ |