

4.0 Qualification specific information

Pathway 1 - Structural Steelwork SFWEA

Learner's must complete the three mandatory assessment routes below plus one further mandatory assessment routes and three optional assessment routes (one from Group A and two from Group B) (total of seven Units)

Mandatory: All three mandatory assessment routes must be completed

EAL code	Assessment route title	Level	Credit Value
SFWE2/001 A	Complying with statutory regulations and organisational safety requirements	5	5
SFWE2/002 A	Using and interpreting engineering data and documentation	5	5
SFWE2/003 A	Working efficiently and effectively in engineering	5	5

The following mandatory assessment route must be completed

EAL code	Assessment route title	Level	Credit Value
SFWE2/021 A	Marking out components for fabrication	5	26

Group A

One optional assessment route must be completed

EAL code	Assessment route title	Level	Credit Value
SFWE2/032 A	Cutting plate and sections using shearing machines	5	26
SFWE2/033 A	Cutting materials using hand operated thermal cutting equipment	5	26
SFWE2/034 A	Cutting and shaping materials using gas cutting machines	5	29
SFWE2/035 A	Cutting materials using saws and abrasive discs	5	32
SFWE2/045 A	Cutting and shaping materials using CNC water jet cutting machines	5	31

Group B

Two optional assessment routes must be completed

EAL code	Assessment route title	Level	Credit Value
SFWE2/041 A	Producing structural steel ancillary components	5	30
SFWE2/039 A	Producing holes using drilling machines	5	30
SFWE2/028 A	Assembling components using mechanical fasteners	5	27
SFWE2/008 A	Producing fillet welded joints using a manual/semi-automatic welding process	5	32
SFWE2/009 A	Welding materials with mechanised arc welding equipment	5	32
SFWE2/042 A	Assembling structural steelwork	5	32
SFWE2/031 A	Slinging, lifting and moving materials and components	5	23

Pathway 2 - Manual Welding SFWEB

Learner's must complete the three Mandatory assessment routes below plus one further optional assessment route (four units in total)

Mandatory: All three mandatory assessment routes must be completed

EAL code	Assessment route title	Level	Credit Value
SFWE2/001 A	Complying with statutory regulations and organisational safety requirements	5	5
SFWE2/002 A	Using and interpreting engineering data and documentation	5	5
SFWE2/003 A	Working efficiently and effectively in engineering	5	5

One optional assessment routes must be completed

EAL code	Assessment route title	Level	Credit Value
SFWE2/004 A	Joining materials by the manual metal arc welding process	5	32
SFWE2/005 A	Joining materials by the semi-automatic MIG/MAG and flux cored arc processes	5	32
SFWE2/006 A	Joining materials by the manual TIG and Plasma-arc welding processes	5	32
SFWE2/007 A	Joining materials by the manual Oxy/fuel gas welding process	5	31
SFWE2/008 A	Producing fillet welded joints using a manual/semi-automatic welding process	5	32

Pathway 3 - Pipework Fabrication SFWEC

Learner's must complete the three mandatory assessment routes below plus one further mandatory assessment route and three optional assessment routes (one from Group A and two from Group B) (total of seven Units)

Mandatory: All three mandatory assessment routes must be completed

EAL code	Assessment route title	Level	Credit Value
SFWE2/001 A	Complying with statutory regulations and organisational safety requirements	5	5
SFWE2/002 A	Using and interpreting engineering data and documentation	5	5
SFWE2/003 A	Working efficiently and effectively in engineering	5	5

The following mandatory assessment route must be completed

EAL code	Assessment route title	Level	Credit Value
SFWE2/021 A	Marking out components for fabrication	5	26

Group A

One optional assessment route must be completed

EAL code	Assessment route title	Level	Credit Value
----------	------------------------	-------	--------------

SFWE2/033 A	Cutting materials using hand operated thermal cutting equipment	5	26
SFWE2/034 A	Cutting and shaping materials using gas cutting machines	5	29
SFWE2/035 A	Cutting materials using saws and abrasive discs	5	32

Group B

Two optional assessment routes must be completed

EAL code	Assessment route title	Level	Credit Value
SFWE2/039 A	Producing holes using drilling machines	5	30
SFWE2/043 A	Forming pipework by machine bending	5	31
SFWE2/028 A	Assembling components using mechanical fasteners	5	27
SFWE2/029 A	Bonding engineering materials using adhesives	5	31
SFWE2/044 A	Producing socket and flange fillet welded joints in pipe using a manual welding process	5	32

Pathway 4 - Sheet Metalwork (3mm or less) SFWED

Learner's must complete the three Mandatory assessment routes below plus three optional assessment routes (two from Group A and one from Group B) (total of six Units)

Mandatory: All three mandatory assessment routes must be completed

EAL code	Assessment route title	Level	Credit Value
SFWE2/001 A	Complying with statutory regulations and organisational safety requirements	5	5
SFWE2/002 A	Using and interpreting engineering data and documentation	5	5
SFWE2/003 A	Working efficiently and effectively in engineering	5	5

Group A

Two optional assessment routes must be completed

EAL code	Assessment route title	Level	Credit Value
SFWE2/021 A	Marking out components for fabrication	5	26
SFWE2/022 A	Cutting sheet metal to shape using hand and machine tools	5	24
SFWE2/023 A	Forming sheet metal using hand and machine tools	5	26
SFWE2/024 A	Producing sheet metal assemblies	5	27
SFWE2/025 A	Heat treating materials for fabrication activities	5	33
SFWE2/027 A	Cutting and shaping using CNC plasma or gas cutting machines	5	30
SFWE2/045 A	Cutting and shaping materials using CNC water jet cutting machines	5	31

Group B**One optional assessment route must be completed**

EAL code	Assessment route title	Level	Credit Value
SFWE2/028 A	Assembling components using mechanical fasteners	5	27
SFWE2/029 A	Bonding engineering materials using adhesives	5	31
SFWE2/005 A	Joining materials by the semi-automatic MIG/MAG and flux cored arc processes	5	32
SFWE2/006 A	Joining materials by the manual TIG and plasma-arc welding processes	5	32
SFWE2/007 A	Joining materials by the manual oxy/fuel gas welding process	5	31
SFWE2/031 A	Slinging, lifting and moving materials and components	5	23

Pathway 5 - Brazing and/or Soldering SFWEE

Learner's must complete the three Mandatory assessment routes plus the following mandatory assessment route (four units in total)

Mandatory: All three mandatory assessment routes must be completed

EAL code	Assessment route title	Level	Credit Value
SFWE2/001 A	Complying with statutory regulations and organisational safety requirements	5	5
SFWE2/002 A	Using and interpreting engineering data and documentation	5	5
SFWE2/003 A	Working efficiently and effectively in engineering	5	5

The following mandatory assessment route must be completed

EAL code	Assessment route title	Level	Credit Value
SFWE2/017 A	Joining materials by manual torch brazing and soldering	5	30

Pathway 6 - Plateworker (3mm upwards) SFWEF

Learner's must complete the three Mandatory assessment routes below plus one further mandatory assessment route, and three optional assessment routes (one from Group A, one from Group B, and one from Group C) (total of seven Units)

Mandatory: All three mandatory assessment routes must be completed

EAL code	Assessment route title	Level	Credit Value
SFWE2/001 A	Complying with statutory regulations and organisational safety requirements	5	5
SFWE2/002 A	Using and interpreting engineering data and documentation	5	5
SFWE2/003 A	Working efficiently and effectively in engineering	5	5

The following mandatory assessment route must be completed

EAL code	Assessment route title	Level	Credit Value
SFWE2/021 A	Marking Out Components for Fabrication	5	26

Group A

One optional assessment route must be completed

EAL code	Assessment route title	Level	Credit Value
SFWE2/032 A	Cutting plate and sections using shearing machines	5	26
SFWE2/033 A	Cutting materials using hand operated thermal cutting equipment	5	26
SFWE2/034 A	Cutting and shaping materials using gas cutting machines	5	29
SFWE2/035 A	Cutting materials using saws and abrasive discs	5	32
SFWE2/027 A	Cutting and shaping using CNC plasma or gas cutting machines	5	30
SFWE2/045 A	Cutting and shaping materials using CNC water jet cutting machines	5	31

Group B**One optional assessment route must be completed**

EAL code	Assessment route title	Level	Credit Value
SFWE2/036 A	Bending and forming plate using power operated machines	5	30
SFWE2/037 A	Forming platework using power rolling machines	5	30
SFWE2/038 A	Producing platework assemblies	5	31
SFWE2/039 A	Producing holes using drilling machines	5	30

Group C**One optional assessment route must be completed**

EAL code	Assessment route title	Level	Credit Value
SFWE2/028 A	Assembling components using mechanical fasteners	5	27
SFWE2/008 A	Producing fillet welded joints using a manual/semi-automatic welding process	5	32
SFWE2/009 A	Welding materials with mechanised arc welding equipment	5	32
SFWE2/031 A	Slinging, lifting and moving materials and components	5	23

Pathway 7 - Welding Machine Operations SFWEG

Learner's must complete the three Mandatory assessment routes below plus one further Mandatory assessment route (four units in total)

Mandatory: All three mandatory assessment routes must be completed

EAL code	Assessment route title	Level	Credit Value
SFWE2/001 A	Complying with statutory regulations and organisational safety requirements	5	5
SFWE2/002 A	Using and interpreting engineering data and documentation	5	5
SFWE2/003 A	Working efficiently and effectively in engineering	5	5

The following mandatory assessment route must be completed

EAL code	Assessment route title	Level	Credit Value
SFWE2/009 A	Welding Materials with Mechanised Arc Welding Equipment	5	32