



**WIRRAL
MET
COLLEGE**
SINCE 1855

Metal Fabricator Level 3

Apprenticeship Standard

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Overview



The Metal Fabricator carries out metal fabrication work using things such as rolled steel joists, columns, channels, steel plate and metal sheet etc. Work includes manufacturing bridges, oil rigs, ships, petro-chemical installations, cranes, platforms, aircraft, automotive and machinery parts, sheet metal enclosures and equipment supports.

The Metal Fabricator interacts with planners, supervisors, inspectors, designers, welders, pipefitters, fitters, machinists, riggers, steel erectors, stores personnel, painters and many others involved in manufacturing, production, maintenance and repair.

Duration:

42 months + 3 months for the End Point Assessment

Entry Guidelines:

English & maths at GCSE grade A*-C/4-9 or Functional Skills level 2

Minimum 2 other GCSEs at Grade C/4 including Science



Metal Fabricator Level 3

Course Overview

Pre-programme →	On Programme Learning covering Knowledge, Skills and Behaviours →	Gateway →	Independent End Point Assessment
Initial assessment English & Maths	Diploma in Advanced Manufacturing Engineering Level 3 (day release, Twelve Quays Campus)	<ul style="list-style-type: none"> e-portfolio of evidence 	<ul style="list-style-type: none"> Practical Observation
Skills Scan	Portfolio of evidence to be built during on programme learning	<ul style="list-style-type: none"> Diploma in Advanced Manufacturing Engineering level 3 	<ul style="list-style-type: none"> Professional Discussion
Induction with Trainer Assessor	On programme Assessments & Reviews: <ul style="list-style-type: none"> On-programme learning assessments 6-8 weekly sessions with Trainer Assessor & 8-10 week Progress Reviews with apprentice and employer 	<ul style="list-style-type: none"> English level 2 Maths level 2 	

Course Details

This apprenticeship programme is designed to develop the knowledge, skills and behaviours required to be an effective Metal Fabricator.

The **Skills & Behaviours** element of the apprenticeship is to be completed with support from a Trainer Assessor making periodic visits to the apprentice in the workplace. The Trainer Assessor will support and guide the apprentice to ensure that they are developing the skills and competency required in accordance with the apprenticeship standard. The apprentice will use the e-portfolio system called OneFile to build a portfolio of work throughout the development stage, which is a key component of End Point Assessment and demonstrates their occupational competency.

The Knowledge element of the course will include:

1. General engineering mathematical and scientific principles, methods, techniques, graphical expressions, symbols formulae and calculations.
2. The correct methods of moving and handling materials.
3. Processes for preparing materials to be marked out.
4. The tools and techniques available for cutting, shaping, assembling and finishing materials.
5. Allowances for cutting, notching, bending, rolling and forming materials.
6. Inspection techniques that can be applied to check shape and dimensional accuracy.
7. Equipment associated with Manual or Mechanised joining techniques including maintaining equipment in a reliable and safe condition.

The Occupational Skills element of the course will include:

1. Work safely at all times, comply with health & safety legislation, regulations and organisational requirements.
2. Obtain, check and use the appropriate documentation (such as job instructions, drawings, quality control documentation).
3. Carry out relevant planning and preparation activities before commencing work activity.
4. Carry out the required checks (such as quality, compliance or testing) using the correct procedures, processes and/or equipment.
5. Deal promptly and effectively with problems within the limits of their responsibility using approved diagnostic methods and techniques and report those which cannot be resolved to the appropriate personnel.
6. Complete any required documentation using the defined recording systems at the appropriate stages of the work activity.
7. Identify and follow correct Metal work instructions, specifications, drawing etc.
8. Cut and form Metal for the production of fabricated products.
9. Produce and assemble Metal products to required specification and quality requirements.
10. Weld joints in accordance with approved welding procedures and quality requirements.

Skills & Behaviours

The **Skills & Behaviours** element of the apprenticeship is to be completed with support from a Trainer Assessor making periodic visits to the apprentice in the workplace. The Trainer Assessor will support and guide the apprentice to ensure that they are developing the skills and competency required in accordance with the apprenticeship standard, including:

- Personal responsibility and resilience
- Working effectively in teams
- Effective communication and interpersonal skills
- Focus on quality and problem solving
- Continuous personal development.

The apprentice will use the e-portfolio system called OneFile to build a portfolio of work throughout the development stage, which is a key component of End Point Assessment and demonstrates their occupational competency.



To progress through the Gateway to the End Point Assessment, the Metal Fabricator apprentice must have successfully achieved:

- The Diploma in Advanced Manufacturing Engineering level 3
- English and maths at level 2
- Completion of their portfolio of evidence.

The apprentice's employer must sign-off the portfolio of evidence, that has been completed by the apprentice during their programme, to confirm the apprentice has demonstrated the knowledge, skills and behaviours assigned to this apprenticeship standard.

End Point Assessment

The End Point Assessment must only start once the employer is satisfied that the apprentice is consistently working at or above the level set out in the occupational standard, that means they have achieved occupational competence.

End Point Assessment (EPA) normally takes 3 months to complete and consists of:

- 1 Practical Observation
- 2 Professional Discussion

1 Practical Observation

The Practical Observation will last six hours and include:

- i. Working safely, efficiently and effectively at all times ensuring that all appropriate legislation, regulation and environmental compliance has been adhered to.
- ii. Identification and use of appropriate documentation e.g. job instructions, drawings, quality control documentation.
- iii. Fabrication activities in-line with the correct processes, procedures and equipment.
- iv. Cutting and forming of metal for the production of fabricated parts.
- v. Assembly of metal products to required specification and quality requirements.
- vi. Joining of materials using approved welding procedures and quality requirements (where appropriate).

2 Professional discussion supported by a portfolio of evidence

The professional discussion will be a structured discussion of up to 40 minutes between the apprentice and the independent assessor, to establish the apprentice's understanding and application of knowledge, skills and behaviours.

The portfolio of evidence will not be assessed, but will be used by the assessor to prepare the questioning for the professional discussion and by the apprentice to exemplify their responses to the questions.

Grading & Progression



Apprenticeship grading

The available grades for this apprenticeship programme are **Fail**, **Pass** and **Distinction**.

Where can apprentices progress to?

The apprentice may choose to progress on to a higher level position in Engineering and Manufacturing.



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