

Apprenticeship Standard for Advanced Furniture CNC Technician

Occupational Profile

This occupation is found in the furniture, furnishings and interiors industry. The broad purpose of the occupation is to manufacture furniture and components using Computer Numerically Controlled (CNC) machinery to perform precision tasks. This includes setting, loading and proving CNC programmes to produce furniture and/or components, setting up, operating and maintaining CNC furniture production machinery, improving CNC processes to produce furniture efficiently and finding and rectifying faults with furniture production machinery. Advanced Furniture CNC Technicians also produce and maintain jigs and templates to produce furniture components and create and modify programmes for producing furniture using auto CAD.

In their daily work, an employee in this occupation interacts with a range of colleagues including production/manufacturing managers, quality technicians, production leaders, designers, product developers and engineers.

Advanced Furniture CNC Technicians can work in a range of environments from small workshops to large factories. An employee in this occupation will be responsible for producing machined components by programming, setting up, and operating a computer numerical control (CNC) machine, maintaining quality and safety standards and maintaining equipment. They may also be responsible for a team depending on the size of the organisation they work in.

Typical job titles include Furniture CNC Machinist, Furniture CNC Programmer, Furniture CNC Operator, Furniture CNC Manager, Furniture CNC Supervisors, Furniture CNC Team Leader, Furniture CNC Wood Machinist, CNC Wood Machinist

Duties: Knowledge, Skills and Behaviours

Duty 1

In this occupation a fully competent employee can:

set, load and prove CNC programmes to produce furniture and/or furniture components to specification

| Knowledge | Skills |
|--|---|
| Understand tool compensation | Set tool compensation data |
| Understand tool data | Set tool data |
| Understand parameters of machines, safety and guarding | Set the parameters of machines |
| Understand optimisation for best yield of material | Optimise machinery for best yield of material |

| | |
|--|--|
| Understand setting, loading, proving and optimisation CNC programmes | Set, load, prove and optimise CNC programmes |
|--|--|

Duty 2

In this occupation a fully competent employee can:

set up, operate and maintain CNC furniture production machinery

| Knowledge | Skills | Behaviours |
|---|---|---|
| Overview knowledge of technical processes, such as capability / awareness of manufacturing, helping to resolve furniture production problems / breakdowns and defining operating procedures | Set up and operate CNC machinery using appropriate safety measures and guards | Integrity, aims for excellence and manages time effectively |
| Understand tooling, awareness of operational process to include administration, material technology, advancements and manufacturing equipment | Use tooling suitable for use with materials being processed. | |
| Detailed knowledge of industry materials and modern and traditional furniture manufacturing methods | Manage resources effectively | |
| Understand how to maintain CNC/NC machinery | Maintain CNC/NC machinery | |

Duty 3

In this occupation a fully competent employee can:

improve CNC processes to produce furniture efficiently

| Knowledge | Skills |
|---|-----------------------------------|
| Understand process improvement techniques | Improve the manufacturing process |
| Awareness of lean manufacturing techniques, for example, Kiazen, Lean , Just in time and 5S | |

Duty 4

In this occupation a fully competent employee can:

work safely at all times following relevant legislation and regulations ensuring self and others safety

| Knowledge | Skills | Behaviours |
|---|---------------------------|-----------------------------------|
| Understands health, safety and environmental management and risk assessment. | Work safely at all times. | Ensures safety of self and others |
| Overview knowledge of industry specific regulations, legislation and standards, covering British Standards, CE Marks, Intellectual Property, ergonomics and renewable practices | | |

Duty 5

In this occupation a fully competent employee can:

produce and maintain jigs and templates to produce furniture components

| Knowledge | Skills |
|---|---|
| Understand how to produce and maintain jigs and holding devices | Produce and maintain jigs and holding devices |

Duty 6

In this occupation a fully competent employee can:

create and modify programmes for producing furniture using auto CAD

| Knowledge | Skills |
|---|--|
| Understand how to develop and modify CAD drawings in CNC production | Develop and modify CAD drawings to suit CNC processes. |

Duty 7

In this occupation a fully competent employee can:

find and rectify faults with furniture production machinery

| Knowledge | Skills |
|--|---|
| Understand machine fault finding techniques and programming fault finding and an awareness of faults | Carry out machine and programming fault finding |

Duty 8

In this occupation a fully competent employee can:

lead, manage and coach teams and develop own skills to ensure effective results

| Knowledge | Skills | Behaviours |
|--|--|--|
| Basic knowledge of grievance and discipline procedures and conflict management | Ability to manage self and others and the ability to influence teams | Sets an example to others, is fair, consistent and reliable |
| | Basic coaching, mentoring and team development skills | Take personal responsibility for meeting objectives of the team and business |
| | Develop own skills | Flexible in changing environment and demands |
| | Train others to use machinery | |

Duty 9

In this occupation a fully competent employee can:

lead, manage and coach teams and develop own skills to ensure effective results

| Knowledge | Skills | Behaviours |
|--|--|--|
| Basic knowledge of grievance and discipline procedures and conflict management | Ability to manage self and others and the ability to influence teams | Sets an example to others, is fair, consistent and reliable |
| Understand basic coaching, mentoring and team development skills | Basic coaching, mentoring and team development skills | Take personal responsibility for meeting objectives of the team and business |
| Understand how to develop own skills | Develop own skills | Flexible in changing environment and demands |
| | Train others to use machinery | |

Entry Requirements

Set by individual employers, entry requirements will typically include a minimum of 5 GCSE grades A* - C or 9-4 (or equivalent qualifications).

Duration

Typically this apprenticeship will take 24 months to complete.

Qualifications

Apprentices without level 2 English and maths will need to achieve this level prior to taking the end-point assessment.

Level

This is a level 3 apprenticeship.

Review Date

After 3 years.