



ETCAL Level 3 NVQ Diploma in Engineering Toolmaking
600/3427/0
Structure

Qualification aim

This qualification is designed to support those learners training in Engineering Toolmaking, however, it is also available for individuals who are not following an apprenticeship. It provides a structured individualised route with knowledge and skills for those who wish to achieve a qualification in Engineering Toolmaking.

Qualification introduction

This qualification is made up of 3 mandatory units that will help learners to develop an understanding of the knowledge and skills required as relevant to their capabilities and aspirations. Its mandatory units form a foundation to extend the understanding and skills in specific areas through the optional routes. In addition to these, learners are required to achieve additional units selected from a suite of 5 Pathways and in accordance with the achievement definition. Learners who complete the qualification will be equipped with the knowledge and skills to underpin career development within the industry.

Assessment

The assessment criteria determine the standard required to achieve each unit and allow for a variety of assessment methods to be used as appropriate to the environment the qualification is delivered in. There is no examined assessment element in this qualification.

Achievement

Learners must achieve a minimum of 105 credits to gain the qualification. 15 credits must be achieved by completing the 3 mandatory units and the remaining credits achieved by completing the required optional units from the suite of Pathways.

Qualification Number		600/3427/0
Qualification Framework		RQF
Title		ETCAL Level 3 NVQ Diploma in Engineering Toolmaking
Qualification Level		Level 3
Total Qualification Time		1050 TQT
Guided Learning Hours		316 GLH
Qualification Credit Value		105 Credits
Qualification Grading Structure		Pass / Fail

Unit Title	Mandatory/Optional	GLH	TQT	Credit Value	Grading
Mandatory units: All three units must be taken					
Complying with Statutory Regulations and Organisational Safety Requirements	M	35		5	Pass/Fail
Using and Interpreting Engineering Drawings and Documents	M	25		5	Pass/Fail
Working Efficiently and Effectively in Engineering	M	25		5	Pass/Fail
Toolmaker - Must complete one of the following units:					
Assembling Press Tools	O	210		70	Pass/Fail
Assembling Injection Mould Tools	O	210		70	Pass/Fail
Assembling Blow Mould Tools	O	210		70	Pass/Fail
Assembling Vacuum Forming Tools	O	210		70	Pass/Fail
Assembling Dies	O	210		70	Pass/Fail

Plus two more units from the following:					
Producing/Finishing Mould, Press Tool or Die Components using Hand Fitting Techniques	O	210		70	Pass/Fail
Repairing or Modifying Mould, Press Tool or Die Components	O	210		70	Pass/Fail
Producing Mould, Press Tool or Die Components by Manual Machining	O	210		70	Pass/Fail
Checking that Toolroom Assemblies Comply with Specification	O	91		30	Pass/Fail
Handing Over and Confirming the Completion of Mould, Press Tool or Die Equipment	O	98		38	Pass/Fail
Preparing and Setting Power Presses	O	210		91	Pass/Fail
Trying Out and Proving Dies	O	210		70	Pass/Fail
Trying Out and Proving Injection Moulds	O	210		70	Pass/Fail
Toolroom CNC Machining - Must complete one of the following units:					
Loading and Proving CNC Machine Tool Programs	O	91		4	Pass/Fail
Carrying Out CNC Machine Tool Programming	O	231		84	Pass/Fail
Plus one unit from the following:					
Producing Toolroom Components using CNC Turning Machines	O	140		66	Pass/Fail
Producing Toolroom Components using CNC Milling Machines	O	140		66	Pass/Fail
Producing Toolroom Components using CNC Grinding Machines	O	140		66	Pass/Fail
Producing Toolroom Components using CNC Laser Profiling Machines	O	140		66	Pass/Fail
Producing Toolroom Components using CNC Electro-Discharge Machines	O	140		66	Pass/Fail
Producing Toolroom Components using CNC Machining Centres	O	140		66	Pass/Fail
Mould, Tool and Die Equipment Maintenance - Must complete the following units:					
Carrying Out Fault Diagnosis on Mould, Press Tool or Die equipment	O	56		49	Pass/Fail
Maintaining Mould, Press Tool or Die Equipment	O	119		70	Pass/Fail
Handing Over and Confirming the Completion of Mould, Press Tool or Die Equipment Maintenance Activities	O	98		38	Pass/Fail
Plus two more units from the following:					
Repairing or Modifying Mould, Press Tool or Die Components	O	210		70	Pass/Fail
Producing Mould, Press Tool or Die Components by Manual Machining	O	210		70	Pass/Fail
Preparing and Setting Power Presses	O	210		91	Pass/Fail
Carrying Out Condition Monitoring of Mould, Press Tool or Die Equipment	O	77		39	Pass/Fail
Carrying Out Planned Maintenance on Mould, Press Tool or Die Equipment	O	70		38	Pass/Fail

Carrying Out Planned Maintenance on Power Presses	O	119		70	Pass/Fail
Jig and Fixture Manufacture - Must complete three of the following units:					
Producing Jig and Fixture Components using Hand Fitting Techniques	O	210		70	Pass/Fail
Machining Components for Jigs and Fixtures	O	210		70	Pass/Fail
Fabricating Structural Components for Jigs and Fixtures	O	216		54	Pass/Fail
Assembling Jigs and Fixtures using Mechanical Methods	O	210		70	Pass/Fail
Assembling Jig and Fixture Structures using a Manual Welding Process	O	216		54	Pass/Fail
Carrying Out Repairs or Modifications to Jigs or Fixtures	O	210		70	Pass/Fail
Checking that Toolroom Assemblies Comply with Specification	O	91		30	Pass/Fail
Toolroom Manual Machining - Must complete any pair of the following units:					
Setting a Range of Machines to Produce Toolroom Components	O	378		164	Pass/Fail
Machining Toolroom Components using a Range of Machines	O	294		139	Pass/Fail
Setting Centre Lathes to Produce Toolroom Components	O	210		91	Pass/Fail
Machining Toolroom Components using Centre Lathes	O	161		77	Pass/Fail
Setting Milling Machines to Produce Toolroom Components	O	210		91	Pass/Fail
Machining Toolroom Components using Milling Machines	O	161		77	Pass/Fail
Setting Electro-Discharge Machines to Produce Toolroom Components	O	210		91	Pass/Fail
Machining Toolroom Components using Electro-Discharge Machines	O	161		77	Pass/Fail
Setting Grinding Machines to Produce Toolroom Components	O	210		91	Pass/Fail
Machining Toolroom Components using Grinding Machines	O	161		77	Pass/Fail