Pearson BTEC Level 2 Award/Certificate/Extended Certificate in Engineering (Specialist: Manufacturing Engineering)(QCF)

Specification

BTEC Specialist qualification

First teaching September 2010

Issue 2

Edexcel, BTEC and LCCI qualifications

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This specification is Issue 2. Key changes are sidelined. We will inform centres of any changes to this issue. The latest issue can be found on our website: qualifications.pearson.com

References to third party material made in this specification are made in good faith. Pearson does not endorse, approve or accept responsibility for the content of materials, which may be subject to change, or any opinions expressed therein. (Material may include textbooks, journals, magazines and other publications and websites.)

All information in this specification is correct at time of publication.

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Changes to Issue 1

This specification has been updated to Issue 2. As a result of feedback from centres, seven new units have been added to the structure for the Extended Certificate **only**. This change enables learners to achieve the Extended Certificate as the knowledge component for the SASE Intermediate Apprenticeship in Improving Operational Performance and the SASE Intermediate Apprenticeship in Engineering Manufacture (Operator and Semi-Skilled).

Contents

Purpose of this specification

The purpose of a specification as defined by Ofqual is to set out:

- the qualification's objective
- any other qualification that a learner must have completed before taking the qualification
- any prior knowledge, skills or understanding that the learner is required to have before taking the qualification
- units that a learner must have completed before the qualification will be awarded and any optional routes
- any other requirements that a learner must have satisfied before they will be assessed or before the qualification will be awarded
- the knowledge, skills and understanding that will be assessed as part of the qualification (giving a clear indication of their coverage and depth)
- the method of any assessment and any associated requirements relating to it
- the criteria against which the learner's level of attainment will be measured (such as assessment criteria)
- any specimen materials
- any specified levels of attainment.

1 Introducing BTEC Specialist qualifications

What are BTEC Specialist qualifications?

BTEC Specialist qualifications are qualifications from Entry to Level 3 on the Qualifications and Credit Framework (QCF). They are work-related qualifications available in a range of sectors. They give learners the knowledge, understanding and skills they need to prepare for employment. The qualifications also provide career development opportunities for those already in work. The qualifications may be offered as full-time or part-time courses in schools or colleges. Training centres and employers may also offer these qualifications.

Some BTEC Specialist qualifications are knowledge components in Apprenticeship Frameworks, i.e. Technical Certificates.

There are three sizes of BTEC Specialist qualification in the QCF:

- Award (1 to 12 credits)
- Certificate (13 to 36 credits)
- Diploma (37 credits and above).

Every unit and qualification in the QCF has a credit value.

The credit value of a unit specifies the number of credits that will be awarded to a learner who has achieved the learning outcomes of the unit.

The credit value of a unit is based on:

- one credit for every 10 hours of learning time
- learning time – defined as the time taken by learners at the level of the unit, on average, to complete the learning outcomes to the standard determined by the assessment criteria.

2 Qualification summary and key information

Qualification title	Pearson BTEC Level 2 Award in Engineering (Specialist: Manufacturing Engineering) (QCF)
QCF Qualification Number (QN)	500/8264/4
Qualification framework	Qualifications and Credit Framework (QCF)
Accreditation start date	01/09/2010
Operational end date	31/12/2014
Certification end date	31/12/2016
Approved age ranges	14–16 16–18 19+
Credit value	Minimum 10
Assessment	Centre-devised assessment (internal assessment).
Guided learning hours	Minimum 60
Grading information	The qualification is graded pass/fail. Learners must pass all units as described in the rule of combination to achieve the qualification. Each unit within the qualification has specified assessment grading criteria which are to be used for grading purposes. A summative unit grade can be awarded at pass, merit or distinction.
Entry requirements	No prior knowledge, understanding, skills or qualifications are required before learners register for this qualification. However, centres must follow our access and recruitment policy (see *Section 10 Access and recruitment*).

Qualification title	Pearson BTEC Level 2 Certificate in Engineering (Specialist: Manufacturing Engineering) (QCF)
QCF Qualification Number (QN)	500/8273/5
Qualification framework	Qualifications and Credit Framework (QCF)
Accreditation start date	01/09/2010
Operational end date	28/02/2015
Certification end date	28/02/2017
Approved age ranges	14-16 16-18 19+
Credit value	Minimum 15
Assessment	Centre-devised assessment (internal assessment).
Guided learning hours	Minimum 90
Grading information	The qualification is graded pass/fail. Learners must pass all units as described in the rule of combination to achieve the qualification. Each unit within the qualification has specified assessment grading criteria which are to be used for grading purposes. A summative unit grade can be awarded at pass, merit or distinction.
Entry requirements	No prior knowledge, understanding, skills or qualifications are required before learners register for this qualification. However, centres must follow our access and recruitment policy (see *Section 10 Access and recruitment*).

Qualification title	Pearson BTEC Level 2 Extended Certificate in Engineering (Specialist: Manufacturing Engineering) (QCF)
QCF Qualification Number (QN)	500/8270/X
Qualification framework	Qualifications and Credit Framework (QCF)
Accreditation start date	01/09/2010
Review date	31/12/2016
Approved age ranges	14–16 16–18 19+
Credit value	Minimum 30
Assessment	Centre-devised assessment (internal assessment).
Guided learning hours	Minimum 180
Grading information	The qualification is graded pass/fail. Learners must pass all units as described in the rule of combination to achieve the qualification. Each unit within the qualification has specified assessment grading criteria which are to be used for grading purposes. A summative unit grade can be awarded at pass, merit or distinction.
Entry requirements	No prior knowledge, understanding, skills or qualifications are required before learners register for this qualification. However, centres must follow our access and recruitment policy (see *Section 10 Access and recruitment*).

QCF Qualification Number and qualification title

Centres will need to use the QCF Qualification Number (QN) when they seek public funding for their learners. Every unit in a qualification has a QCF unit reference number (URN).

The qualification title, unit titles and QN are given on each learner's final certificate. You should tell your learners this when your centre recruits them and registers them with us. There is more information about certification in our *UK Information Manual,* available on our website.

Qualification objective

The Pearson BTEC Level 2 Award/Certificate/Extended Certificate in Engineering (Specialist: Manufacturing Engineering) (QCF) are for learners who work in, or who want to work in, manufacturing engineering.

The qualifications give learners the opportunity to:

- develop knowledge and understanding related to manufacturing engineering in the engineering sector
- develop a range of specialist skills and techniques related to manufacturing engineering in the engineering sector
- achieve a stand-alone qualification in manufacturing engineering in the engineering sector
- achieve a nationally-recognised Level 2 qualification
- develop their personal growth and engagement in learning.

Apprenticeships

Semta, the Sector Skills Council for Engineering and Manufacturing, approves the Pearson BTEC Level 2 Extended Certificate in Engineering (Specialist: Manufacturing Engineering) (QCF) as the knowledge component for the Intermediate Apprenticeship in Improving Operational Performance and the Intermediate Apprenticeship in Engineering Manufacture (Operator and Semi-Skilled).

Progression opportunities through Pearson qualifications

Learners who achieve the Pearson BTEC Level 2 Award/Certificate/Extended Certificate in Engineering (Specialist: Manufacturing Engineering) (QCF) can progress within the workplace or to qualifications such as the Pearson BTEC Level 3 Diploma in Engineering (Specialist: Manufacturing Engineering)(QCF).

Industry support and recognition

These qualifications are supported by Semta, the Sector Skills Council for Engineering and Manufacturing.

Relationship with National Occupational Standards (NOS)

The Pearson BTEC Level 2 Award/Certificate/Extended Certificate in Engineering (Specialist: Manufacturing Engineering) (QCF) relates to the following Level 2 NOS developed by Semta:

- Engineering Maintenance and Installation
- Fabrication and Welding Engineering
- Materials Processing and Finishing
- Mechanical Manufacturing Engineering
- Performing Engineering Operations.

3 Qualification structures

Pearson BTEC Level 2 Award in Engineering (Specialist: Manufacturing Engineering) (QCF)

The learner will need to meet the requirements outlined in the table below before Pearson can award the qualification.

Minimum number of credits that must be achieved	10

Unit reference number	Units	Level	Credit	Guided learning hours
K/600/0409	Mathematics for Engineering Technicians	2	5	30
Y/600/0387	Applied Electrical and Mechanical Science for Engineering	2	5	30
D/600/0388	Engineering Maintenance Procedures	2	5	30
H/600/0389	Preparing and Controlling Engineering Manufacturing Operations	2	5	30
H/600/0392	Electronic Devices and Communication Applications	2	10	60
L/600/0404	Engineering Assembly Methods and Techniques	2	5	30
D/600/0410	Selecting and Using Secondary Machining Techniques to Remove Material	2	10	60
H/600/0411	Part Programming CNC Machines	2	10	60
K/600/0412	Application of Welding Processes	2	10	60
T/600/0414	Fabrication Techniques and Sheet Metal Work	2	10	60
J/600/0417	Engineering Marking Out	2	5	30
L/600/0418	Electronic Circuit Construction	2	10	60

Unit reference number	Units continued	Level	Credit	Guided learning hours
R/600/0419	Using Specialist Secondary Machining Techniques	2	5	30
J/600/0420	Production Planning for Engineering	2	5	30
L/600/0421	Application of Quality Control and Measurement in Engineering	2	10	60
Y/600/0423	Casting and Moulding Engineering Components	2	10	60
H/600/3387	Operation and Maintenance of Fluid Power Systems and Components	2	10	60
D/600/0424	Applying Continuous Improvement and Problem Solving Techniques	2	10	60
M/600/0427	Workplace Organisation and Standard Operating Procedures	2	10	60

The units listed in the table above are also within the Pearson BTEC Level 2 Diploma in Engineering (QCF) (500/7576/7) qualification. Please see the Pearson BTEC Level 2 Diploma in Engineering (QCF) specification for the full units. The specification is on our website: qualifications.pearson.com in the course materials section for the Engineering (Specialist – Manufacturing Engineering) (Level 2) qualifications.

Pearson BTEC Level 2 Certificate in Engineering (Specialist: Manufacturing Engineering) (QCF)

The learner will need to meet the requirements outlined in the table below before Pearson can award the qualification.

Minimum number of credits that must be achieved	15

Unit reference number	Units	Level	Credit	Guided learning hours
K/600/0409	Mathematics for Engineering Technicians	2	5	30
Y/600/0387	Applied Electrical and Mechanical Science for Engineering	2	5	30
D/600/0388	Engineering Maintenance Procedures	2	5	30
H/600/0389	Preparing and Controlling Engineering Manufacturing Operations	2	5	30
H/600/0392	Electronic Devices and Communication Applications	2	10	60
L/600/0404	Engineering Assembly Methods and Techniques	2	5	30
D/600/0410	Selecting and Using Secondary Machining Techniques to Remove Material	2	10	60
H/600/0411	Part Programming CNC Machines	2	10	60
K/600/0412	Application of Welding Processes	2	10	60
T/600/0414	Fabrication Techniques and Sheet Metal Work	2	10	60
J/600/0417	Engineering Marking Out	2	5	30
L/600/0418	Electronic Circuit Construction	2	10	60
R/600/0419	Using Specialist Secondary Machining Techniques	2	5	30
J/600/0420	Production Planning for Engineering	2	5	30
L/600/0421	Application of Quality Control and Measurement in Engineering	2	10	60

Unit reference number	Units continued	Level	Credit	Guided learning hours
Y/600/0423	Casting and Moulding Engineering Components	2	10	60
H/600/3387	Operation and Maintenance of Fluid Power Systems and Components	2	10	60
D/600/0424	Applying Continuous Improvement and Problem Solving Techniques	2	10	60
M/600/0427	Workplace Organisation and Standard Operating Procedures	2	10	60

The units listed in the table above are also within the Pearson BTEC Level 2 Diploma in Engineering (QCF) (500/7576/7) qualification. Please see the Pearson BTEC Level 2 Diploma in Engineering (QCF) specification for the full units. The specification is on our website: qualifications.pearson.com in the course materials section for the Engineering (Specialist – Manufacturing Engineering) (Level 2) qualifications.

Pearson BTEC Level 2 Extended Certificate in Engineering (Specialist: Manufacturing Engineering) (QCF)

The learner will need to meet the requirements outlined in the table below before Pearson can award the qualification.

Minimum number of credits that must be achieved	30

Unit reference number	Units	Level	Credit	Guided learning hours
K/600/0409	Mathematics for Engineering Technicians	2	5	30
Y/600/0387	Applied Electrical and Mechanical Science for Engineering	2	5	30
D/600/0388	Engineering Maintenance Procedures	2	5	30
H/600/0389	Preparing and Controlling Engineering Manufacturing Operations	2	5	30
H/600/0392	Electronic Devices and Communication Applications	2	10	60
L/600/0404	Engineering Assembly Methods and Techniques	2	5	30
D/600/0410	Selecting and Using Secondary Machining Techniques to Remove Material	2	10	60
H/600/0411	Part Programming CNC Machines	2	10	60
K/600/0412	Application of Welding Processes	2	10	60
T/600/0414	Fabrication Techniques and Sheet Metal Work	2	10	60
J/600/0417	Engineering Marking Out	2	5	30
L/600/0418	Electronic Circuit Construction	2	10	60
R/600/0419	Using Specialist Secondary Machining Techniques	2	5	30
J/600/0420	Production Planning for Engineering	2	5	30
L/600/0421	Application of Quality Control and Measurement in Engineering	2	10	60

Unit reference number	Units continued	Level	Credit	Guided learning hours
Y/600/0423	Casting and Moulding Engineering Components	2	10	60
H/600/3387	Operation and Maintenance of Fluid Power Systems and Components	2	10	60
D/600/0424	Applying Continuous Improvement and Problem Solving Techniques	2	10	60
M/600/0427	Workplace Organisation and Standard Operating Procedures	2	10	60
M/600/0377	Working Safely and Effectively in Engineering	2	5	30
T/600/0378	Interpreting and Using Engineering Information	2	5	30
A/600/0396	Selecting Engineering Materials	2	5	30
L/600/0399	Using Computer Aided Drawing Techniques in Engineering	2	10	60
A/600/0401	Operation and Maintenance of Mechanical Systems and Components	2	10	60
F/600/0402	Operation and Maintenance of Electrical Systems and Components	2	10	60
J/600/0403	Operation and Maintenance of Electronic Systems and Components	2	10	60

The units listed in the table above are also within the Pearson BTEC Level 2 Diploma in Engineering (QCF) (500/7576/7) qualification. Please see the Pearson BTEC Level 2 Diploma in Engineering (QCF) specification for the full units. The specification is on our website: qualifications.pearson.com in the course materials section for the Engineering (Specialist – Manufacturing Engineering) (Level 2) qualifications.

4 Assessment and grading

All units within these qualifications are internally assessed. In order to achieve a unit, the evidence that the learner presents for assessment needs to demonstrate that they can meet all the learning outcomes for the unit at a minimum of a 'pass'.

Each of the units within the qualifications have specified assessment criteria and grading criteria which must be used. A summative unit grade can be awarded at pass, merit or distinction.

- To achieve a 'pass' a learner must have successfully completed **all** the assessment criteria.
- To achieve a 'merit' a learner must **additionally** have successfully completed **all** the merit grading criteria.
- To achieve a 'distinction' a learner must **additionally** have successfully completed **all** the distinction grading criteria.

Guidance

The purpose of assessment is to ensure that effective learning has taken place to give learners the opportunity to:

- meet the standard determined by the assessment and grading criteria and
- achieve the learning outcomes.

All the assignments created by centres should be reliable and fit for purpose, and should be built on the unit assessment and grading criteria. Assessment tasks and activities should enable learners to produce valid, sufficient and reliable evidence that relates directly to the specified criteria. Centres should enable learners to produce evidence in a variety of different forms. These can include performance observation, presentations and posters, along with projects, or time-constrained assessments.

Centres are encouraged to emphasise the practical application of the assessment and grading criteria, providing a realistic scenario for learners to adopt, and making maximum use of practical activities. The creation of assignments that are fit for purpose is vital to achievement and their importance cannot be over-emphasised.

The assessment and grading criteria must be clearly indicated in the assignment briefs. This gives learners focus and helps with internal verification and standardisation processes. It will also help to ensure that learner feedback is specific to the assessment and grading criteria.

When designing assignment briefs, centres are encouraged to identify common topics and themes. A central feature of vocational assessment is that it allows for assessment to be:

- current, i.e. to reflect the most recent developments and issues
- local, i.e. to reflect the employment context of the delivering centre
- flexible to reflect learner needs, i.e. at a time and in a way that matches the learner's requirements so that they can demonstrate achievement

Qualification grade

Learners who achieve the minimum eligible credit value specified by the rule of combination will achieve the qualification at pass grade.

In the Pearson BTEC Level 2 Specialist qualifications each unit has a credit value which specifies the number of credits that will be awarded to a learner who has achieved the learning outcomes of the unit. This has been based on:

- one credit for those learning outcomes achievable in 10 hours of learning time
- learning time being defined as the time taken by learners at the level of the unit, on average, to complete the learning outcomes of the unit to the standard determined by the assessment and grading criteria
- the credit value of the unit remaining constant regardless of the method of assessment used or the qualification to which it contributes.

5 Recognising prior learning and achievement

Recognition of Prior Learning

Recognition of Prior Learning (RPL) is a method of assessment (leading to the award of credit) that considers whether a learner can demonstrate that they can meet the assessment requirements for a unit through knowledge, understanding or skills they already possess and so do not need to develop through a course of learning.

Pearson encourages centres to recognise learners' previous achievements and experiences in and outside the workplace, as well as in the classroom. RPL provides a route for the recognition of the achievements resulting from continuous learning.

RPL enables recognition of achievement from a range of activities using any valid assessment methodology. If the assessment requirements of a given unit or qualification have been met, the use of RPL is acceptable for accrediting a unit, units or a whole qualification. Evidence of learning must be sufficient, reliable and valid.

Further guidance is available in our policy document *Recognition of Prior Learning Policy and Process*, available on our website qualifications.pearson.com

Credit transfer

Credit transfer describes the process of using a credit or credits awarded in the context of a different qualification or awarded by a different awarding organisation towards the achievement requirements of another qualification. All awarding organisations recognise the credits awarded by all other awarding organisations that operate within the QCF.

If learners achieve credits with other awarding organisations, they do not need to retake any assessment for the same units. The centre must keep evidence of credit achievement.

6 Centre resource requirements

As part of the approval process, centres must make sure that the resource requirements below are in place before offering the qualification.

- Centres must have appropriate physical resources (for example IT, learning materials, teaching rooms) to support delivery and assessment.
- Staff involved in the assessment process must have relevant expertise and occupational experience.
- There must be systems in place that ensure continuing professional development (CPD) for staff delivering the qualifications.
- Centres must have in place appropriate health and safety policies relating to the use of equipment by learners.
- Centres must deliver the qualifications in accordance with current equality legislation. For further details on Pearson's commitment to the Equality Act 2010, please see *Section 10 Access and recruitment* and *Section 11 Access to qualifications for learners with disabilities or specific needs*. For full details of the Equality Act 2010, please go to www.legislation.gov.uk

7 Centre recognition and approval centre recognition

Centres that have not previously offered Pearson qualifications need to apply for, and be granted, centre recognition as part of the process for approval to offer individual qualifications.

Existing centres will be given 'automatic approval' for a new qualification if they are already approved for a qualification that is being replaced by a new qualification and the conditions for automatic approval are met.

Guidance on seeking approval to deliver BTEC qualifications is given on our website.

Approvals agreement

All centres are required to enter into an approval agreement that is a formal commitment by the head or principal of a centre to meet all the requirements of the specification and any associated codes, conditions or regulations.

Pearson will act to protect the integrity of the awarding of qualifications. If centres do not comply with the agreement, this could result in the suspension of certification or withdrawal of approval.

8 Quality assurance of centres

Quality assurance is at the heart of vocational qualifications. The centre assesses BTEC qualifications. The centre will use quality assurance to make sure that their managers, internal verifiers and assessors are standardised and supported. Pearson use quality assurance to check that all centres are working to national standards. It gives us the opportunity to identify and provide support, if needed, to safeguard certification. It also allows us to recognise and support good practice.

For the qualifications in this specification, the Pearson quality assurance model will follow one of the processes listed below.

1 Delivery of the qualification as part of a BTEC Apprenticeship ('single click' registration):

- an annual visit by a Standards Verifier to review centre-wide quality assurance systems and sampling of internal verification and assessor decisions.

2 Delivery of the qualification outside the Apprenticeship:

- an annual visit to the centre by a Centre Quality Reviewer to review centre-wide quality assurance systems
- Lead Internal Verifier accreditation – this involves online training and standardisation of Lead Internal Verifiers using our OSCA platform, accessed via Edexcel Online. Please note that not all qualifications will include Lead Internal Verifier accreditation. Where this is the case, each year we will allocate a Standards Verifier to conduct postal sampling of internal verification and assessor decisions for the Principal Subject Area.

For further details please see the *UK Vocational Quality Assurance Handbook* on our website.

9 Programme delivery

Centres are free to offer these qualifications using any mode of delivery (for example full-time, part-time, evening only, distance learning) that meets their learners' needs. Whichever mode of delivery is used, centres must make sure that learners have access to the resources identified in the specification and to the subject specialists delivering the units.

Those planning the programme should aim to enhance the vocational nature of the qualification by:

- liaising with employers to make sure that a course is relevant to learners' specific needs
- accessing and using non-confidential data and documents from learners' workplaces
- developing up-to-date and relevant teaching materials that make use of scenarios that are relevant to the sector
- giving learners the opportunity to apply their learning in practical activities
- including sponsoring employers in the delivery of the programme and, where appropriate, in assessment
- making full use of the variety of experience of work and life that learners bring to the programme.

Where legislation is taught, centres must ensure that it is current and up to date.

10 Access and recruitment

Pearson's policy regarding access to our qualifications is that:

- they should be available to everyone who is capable of reaching the required standards
- they should be free from any barriers that restrict access and progression
- there should be equal opportunities for all those wishing to access the qualifications.

Centres are required to recruit learners to BTEC Specialist qualifications with integrity.

Applicants will need relevant information and advice about the qualification to make sure it meets their needs.

Centres should review the applicant's prior qualifications and/or experience, considering whether this profile shows that they have the potential to achieve the qualification.

For learners with disabilities and specific needs, this review will need to take account of the support available to the learner during teaching and assessment of the qualification. The review must take account of the information and guidance in *Section 11 Access to qualifications for learners with disabilities or specific needs*.

Learners may be aged between 14 and 16 and therefore potentially vulnerable. Where learners are required to spend time and be assessed in work settings, it is the centre's responsibility to ensure that the work environment they go into is safe.

11 Access to qualifications for learners with disabilities or specific needs

Equality and fairness are central to our work. Pearson's Equality Policy requires all learners to have equal opportunity to access our qualifications and assessments. It also requires our qualifications to be awarded in a way that is fair to every learner.

We are committed to making sure that:

- learners with a protected characteristic (as defined by the Equality Act 2010) are not, when they are undertaking one of our qualifications, disadvantaged in comparison to learners who do not share that characteristic
- all learners achieve the recognition they deserve from undertaking a qualification and that this achievement can be compared fairly to the achievement of their peers.

Learners taking a qualification may be assessed in British sign language or Irish sign language where it is permitted for the purpose of reasonable adjustments.

Further information on access arrangements can be found in the Joint Council for Qualifications (JCQ) document *Access Arrangements, Reasonable Adjustments and Special Consideration for General and Vocational qualifications*.

Details on how to make adjustments for learners with protected characteristics are given in the document *Pearson Supplementary Guidance for Reasonable Adjustment and Special Consideration in Vocational Internally Assessed Units*.

Both documents are on our website qualifications.pearson.com

12 Units

K/600/0409	Mathematics for Engineering Technicians
Y/600/0387	Applied Electrical and Mechanical Science for Engineering
D/600/0388	Engineering Maintenance Procedures
H/600/0389	Preparing and Controlling Engineering Manufacturing Operations
H/600/0392	Electronic Devices and Communication Applications
L/600/0404	Engineering Assembly Methods and Techniques
D/600/0410	Selecting and Using Secondary Machining Techniques to Remove Material
H/600/0411	Part Programming CNC Machines
K/600/0412	Application of Welding Processes
T/600/0414	Fabrication Techniques and Sheet Metal Work
J/600/0417	Engineering Marking Out
L/600/0418	Electronic Circuit Construction
R/600/0419	Using Specialist Secondary Machining Techniques
J/600/0420	Production Planning for Engineering
L/600/0421	Application of Quality Control and Measurement in Engineering
Y/600/0423	Casting and Moulding Engineering Components
H/600/3387	Operation and Maintenance of Fluid Power Systems and Components
D/600/0424	Applying Continuous Improvement and Problem Solving Techniques
M/600/0427	Workplace Organisation and Standard Operating Procedures
M/600/0377	Working Safely and Effectively in Engineering
T/600/0378	Interpreting and Using Engineering Information
A/600/0396	Selecting Engineering Materials
L/600/0399	Using Computer Aided Drawing Techniques in Engineering
A/600/0401	Operation and Maintenance of Mechanical Systems and Components
F/600/0402	Operation and Maintenance of Electrical Systems and Components
J/600/0403	Operation and Maintenance of Electronic Systems and Components

13 Further information and useful publications

To get in touch with us visit our 'Contact us' pages:

- Edexcel: www.edexcel.com/contactus
- BTEC: www.edexcel.com/btec/contactus
- Pearson Work Based Learning and Colleges: pearsonwbl.edexcel.com/pages
- books, software and online resources for UK schools and colleges: www.pearsonschoolsandfecolleges.co.uk/contactus

Key publications:

- *Adjustments for candidates with disabilities and learning difficulties – Access and Arrangements and Reasonable Adjustments, General and Vocational qualifications* (Joint Council for Qualifications (JCQ))
- *Equality Policy* (Pearson)
- *Recognition of Prior Learning Policy and Process* (Pearson)
- *UK Information Manual* (Pearson)
- *UK Quality Vocational Assurance Handbook* (Pearson).

All of these publications are available on our website.

Publications on the quality assurance of BTEC qualifications are available on our website qualifications.pearson.com

Our publications catalogue lists all the material available to support our qualifications. To access the catalogue and order publications, please go to our website.

Additional resources

If you need further learning and teaching materials to support planning and delivery for your learners, there is a wide range of BTEC resources available.

Any publisher can seek endorsement for their resources, and, if they are successful, we will list their BTEC resources on our website qualifications.pearson.com

14 Professional development and training

Pearson supports UK and international customers with training related to BTEC qualifications. This support is available through a choice of training options offered on our website qualifications.pearson.com

The support we offer focuses on a range of issues, such as:

- planning for the delivery of a new programme
- planning for assessment and grading
- developing effective assignments
- building your team and teamwork skills
- developing learner-centred learning and teaching approaches
- building in effective and efficient quality assurance systems.

The national programme of training we offer is on our website. You can request centre-based training through the website or you can contact one of our advisers in the Training from Pearson UK team via Customer Services to discuss your training needs.

BTEC training and support for the lifetime of the qualifications

Training and networks: our training programme ranges from free introductory events through sector-specific opportunities to detailed training on all aspects of delivery, assignments and assessment. We also host some regional network events to allow you to share your experiences, ideas and best practice with other BTEC colleagues in your region.

Regional support: our team of Curriculum Development Managers and Curriculum Support Consultants, based around the country, are responsible for providing advice and support in centres. They can help you with planning and curriculum developments.

To get in touch with our dedicated support teams please visit: qualifications.pearson.com/contactus

Your Pearson support team

Whether you want to talk to a sector specialist, browse online or submit your query for an individual response, there's someone in our Pearson support team to help you whenever – and however – you need:

- Subject Advisors: find out more about our subject advisor team – immediate, reliable support from a fellow subject expert – at: qualifications.pearson.com /Aboutus/contact-us/Pages
- Ask the Expert: submit your question online to our Ask the Expert online service qualifications.pearson.com/en/support/support-for-you/teachers/contact-us.html and we will make sure your query is handled by a subject specialist.

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For information about Edexcel, BTEC or LCCI qualifications visit qualifications.pearson.com