

Pearson BTEC
International Level 3 in

Digital Technology in Business



Specification

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L3

Issue 1

Edexcel, BTEC and LCCI qualifications

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Welcome

With a track record built over 40 years of learner success, our BTEC International qualifications are recognised internationally by governments, industry and higher education.

What are BTEC International Specialist and Professional qualifications?

These BTEC qualifications are available at Levels 1–3 (Specialist) and at Levels 4–7 (Professional).

BTEC International Specialist and Professional qualifications give learners the knowledge and/or skills they need to prepare for employment in a sector or job role. They also provide career development opportunities for those already in work.

They put learning into the context of the world of work, giving learners the opportunity to apply their learning in relevant and realistic work contexts. This applied, practical approach means that learners develop the knowledge and skills they need for career progression or further study.

Sizes of qualification

Pearson estimates the number of guided learning hours (GLH) that will be needed for centre staff to deliver the qualification. This includes all training that involves centre staff in teaching and supervising learners, as well as all assessment activities.

BTEC Specialist and Professional qualifications are available in the following sizes:

- Award – a qualification with a GLH value of 10–120 hours
- Certificate – a qualification with a GLH value of 121–369 hours
- Diploma – a qualification with a GLH value of 370 or above.

Collaborative development

This qualification has been developed with input from industry experts. We are grateful to all the individuals and organisations who generously shared their time and expertise to help us develop this new qualification. Significant contribution towards this qualification came through collaboration with learn-tech.io, a digital learning organisation that aims to simplify Deep Tech through insights, courses and consulting.

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Introduction to the Pearson BTEC International Level 3 Specialist Award in Digital Technology in Business

This specification contains all the information you need to deliver the Pearson BTEC International Level 3 Specialist Award in Digital Technology in Business.

This specification signposts the other essential documents and support that you need as a centre to deliver, assess and administer the qualification, including the staff development required. A summary of all essential documents is given in *Section 7: Administrative arrangements*.

This qualification is not regulated in England.

The information in this specification is correct at the time of publication.

1 Qualification purpose and progression

Pearson BTEC International Level 3 Specialist Award in Digital Technology in Business

Who is this qualification for?

The Pearson BTEC International Level 3 Specialist Award in Digital Technology in Business is designed to develop the knowledge and skills required to take advantage of new and emerging digital technologies in business.

It introduces learners to the functions and characteristics of digital technologies, and how these can be used to create competitive advantages in business contexts.

What could this qualification lead to?

Learners who have completed the Pearson BTEC International Level 3 Specialist Award in Digital Technology in Business can progress on to other qualifications, such as the:

- Pearson BTEC International Level 4 Professional Award in Artificial Intelligence Strategy for Business Leaders.

This qualification supports career progression. The Pearson BTEC International Level 3 Specialist Award in Digital Technology in Business can support learners intending to work in business and seeking to expand their use of digital technologies.

2 Qualification summary and key information

Qualification title	Pearson BTEC International Level 3 Specialist Award in Digital Technology in Business
Operational start date	01/04/2020
Entry requirements	No prior knowledge, understanding, skills or qualifications are required before learners register for this qualification.
Guided Learning Hours (GLH)	20
Assessment	The units are assessed using assignments that are set and marked by the centre.
Unit grading information	Pass
Qualification grading information	Pass

3 Structure

Qualification structure

Pearson BTEC International Level 3 Specialist Award in Digital Technology in Business

Learners will need to meet the requirements outlined in the table below before the qualification can be awarded.

Pearson BTEC International Level 3 Specialist Award in Digital Technology in Business		
Unit number	Unit title	GLH
Mandatory unit – learners must achieve this unit		
1	Digital Technology in Business	20

4 Units

Understanding your units

The units in this specification set out our expectations of assessment in a way that helps you to prepare your learners for assessment. The units help you to undertake assessment and quality assurance effectively.

Each unit in the specification is set out in a similar way. This section explains how the units work. It is important that all teachers, assessors, internal verifiers and other staff responsible for the programme review this section.

Section	Explanation
Unit number	The number is in a sequence in the specification. Where a specification has more than one qualification, numbers may not be sequential for all qualifications.
Unit title	This is the formal title that we always use, and it will appear on learners' certificates.
Level	All units and qualifications have a level assigned to them. The levels correspond with the levels used in the UK's Regulated Qualification Framework.
Unit type	This says if the unit is mandatory or optional for the qualification.
Guided Learning Hours (GLH)	Guided Learning Hours (GLH) is an estimate of the number of hours that will be needed for a typical learner to achieve the unit. Guided learning includes all training that involve centre staff in teaching and supervising learners, as well as all assessment activities.
Unit introduction	This summarises the content of the unit and how learners will benefit from taking it.
Learning outcomes and assessment criteria	The learning outcomes set out what a learner must know, understand or be able to do as the result of a process of learning. The assessment criteria specify the standard the learner is required to meet to achieve a learning outcome.
Unit content	This section sets out what needs to be taught. Content is compulsory except when it follows an 'e.g.'. Learners should not be asked to complete the assessment until all of the content for the unit has been taught.
Essential information for assessors	This section gives information to support delivery and the implementation of assessment.
Essential resources	This lists any specialist resources needed to deliver the unit. Centres will be asked to show that these resources are in place when they seek approval from Pearson to offer the qualification.

Section	Explanation
Suggested assessment approach	This gives suggestions for how to assess the learning outcomes.
Assessment requirements	This gives detailed information about what evidence learners are required to show in order to meet the assessment requirements.

Index of units

This section contains the unit developed for this qualification. Please refer to *page 5* to check which units are available.

Unit 1: Digital Technology in Business	11
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Unit 1: Digital Technology in Business

Level: 3

Unit type: **Mandatory**

Guided learning hours: 20

Unit introduction

This unit gives learners an understanding of the principles of digital technology and its uses in business.

Learners will explore advancements, such as the Internet of Things, and examine how coding and programming can be used to work with emerging technologies to give businesses a competitive advantage.

Learners will develop skills in computing algorithms, discovering ways to apply technological solutions to business contexts, and developing a digital business solution to a specific situation.

Learning outcomes and assessment criteria

To pass this unit, the learner needs to meet all the learning outcomes for the unit. The assessment criteria determine the standard required to achieve the unit.

Learning outcomes		Assessment criteria	
A	Understand the fundamentals of digital technology in business	A.1	Explain the purpose of digital developments in business.
		A.2	Assess the impact of current and emerging digital technologies on business.
B	Explore the value and challenges of algorithms in business	B.1	Explain the different types of algorithm used in business.
		B.2	Develop a series of algorithms for use in a business context.
C	Investigate how digital innovation is used within business models	C.1	Evaluate the impact on organisations of digital technology solutions used to enhance business models.

Unit content

Learning outcome A: Understand the fundamentals of digital technology in business

Digital fundamentals

- Digital evolution - computing from the 1980s to the present day.
- Hardware components and functions: input, processing, memory, and output.
- Internet of things (IoT): hardware and devices.
- Software: operating systems, coding and programming, and artificial intelligence.

Digital technology in business

- Digital technology products and services, e.g. 5G, artificial intelligence (AI), virtual reality (VR), robotics, blockchain, drones and serverless computing.
- Characteristics of human and computer interface, including: visual, audio, task environment, machine environment, input, and output.
- Emerging technology in a business context.
- Ways in which business has adopted and used digital technology.

Learning outcome B: Explore the value and challenges of algorithms in business

Principles of algorithms in business

- Advantages and disadvantages of the use of algorithms in business.
- Types and characteristics of algorithms, to include: customer interaction, managing the workforce, processing data, and real-time accuracy.
- Considerations for businesses using algorithms, including: privacy, security.

Business applications of algorithms

- Steps to implement algorithms in a business, to include: gather, organise, apply and expose data.
- Designing algorithms in practice, e.g. pseudocode, flow chart and decision tree.

Learning outcome C: Investigate how digital innovation is used within business models

Technology solutions

- Applications of technologies, e.g. cloud, big data, social media, machine learning.
- Advantages and disadvantages of businesses using digital innovation to change business models.
- Technology infrastructure required for business needs.
- Scalability - technology infrastructure capacity to meet business aims.

Essential information for assessors

Essential resources

There are no specialist resources needed for this unit.

Suggested assessment approach

This section must be read in conjunction with *Section 6: Assessment*.

This unit is assessed internally by the centre and externally verified by Pearson.

The table below shows the suggested approach to assessments.

The assessment for this unit should be set in a specific organisational context, it should draw on learning from the unit, and be designed in a way that enables learners to meet all the assessment criteria.

Learning outcome	Suggested assessment approach
A Understand the fundamentals of digital technology in business	Develop an article on business developments and how emerging technology can be used in a business context for a company newsletter.
B Explore the value and challenges of algorithms in business	Report on different types of algorithm used in business, and produce a series of algorithms for use in a business context.
C Investigate how digital innovation is used within business models	Report on technology solutions used by business organisations to get a competitive advantage.

Assessment requirements

Learning outcome A

To achieve A.1, learners must show an understanding of the main digital fundamentals and how they apply to a business context, including new developments and emerging technologies.

To achieve A2, learners must carry out an assessment of the emerging technologies within the digital sphere, choose at least one technology and apply its development and integration in a business context.

Learning outcome B

To achieve B.1, learners must demonstrate an understanding of the different types of algorithm used in business.

To achieve B2, learners must produce at least two algorithms and apply them to a business context.

Learning outcome C

To achieve C.1, learners must draw on knowledge across the learning outcome to produce an in-depth analysis of the effectiveness of technology solutions used in business organisations to improve business models, and to gain a competitive advantage, and the capacity to keep pace with technological advances.

5 Programme delivery

Centres are free to offer these qualifications using any mode of delivery that meets learners' needs. This might include full-time or part-time direct instruction in classrooms, distance learning, and directed self-study.

Centres must make sure that learners have access to the identified resources and to the subject specialists delivering the units.

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

- developing up-to-date and relevant teaching materials that make use of scenarios or case studies that are relevant to the sector
- giving learners the opportunity to apply their learning in realistic practical activities, for example creating business documentation or performing role plays
- developing projects with input from employers

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

Learning Hub

Comprehensive digital learning content for this programme is available on the Pearson Learning Hub. This online and mobile-optimised platform provides high-quality, bite-sized digital content for an accessible, interactive learning experience, including:

- infographics with images and texts to engage learners
- interactive quizzes
- video resources that exemplify key concepts.

To support the delivery of the Pearson BTEC International Level 3 Specialist Award in Digital Technology in Business, see the Learning Hub course: Digital Technology Demystified.

More information can be found on the BTEC International website at:
<https://qualifications.pearson.com/en/about-us/qualification-brands/btec-international/learning-hub.html>

6 Assessment

To achieve a pass for this qualification, the learner must achieve all the units required in the qualification structure.

Internal assessment

All units in this qualification are internally assessed. This means that centres set and mark the assessments, which are then subject to external standards verification by a Pearson standards verifier.

Assessment using assignments

For all units, the format of assessment is an assignment taken after the content of the unit has been delivered. An assignment may take a variety of forms, including practical and written. Assignments are separate from teaching, practice, and other activities that learners complete with input from teachers. Assignments must be completed independently by learners, which means they work on their own without input from other learners or teachers.

An assignment needs to be issued to learners as an assignment brief that includes a start date, a completion date and clear requirements for the evidence that they need to provide. Assignments should be set within a specific organisational context. Assignments can be divided into tasks and may require several forms of evidence, including written tasks and observations.

Teachers will set the assignments. These must allow learners to generate the evidence required to meet the assessment criteria and the *Essential information for assessors* for the unit.

Issuing assessment decisions and feedback

Once the assessor has completed the assessment process for an assignment, the outcome is a formal assessment decision. This is recorded formally and reported to learners.

The information given to the learner:

- must show the formal decision and how it has been reached, indicating how or where criteria have been met
- may show why achievement of assessment criteria has not been demonstrated
- must not provide feedback on how to improve evidence
- must be validated by an internal verifier before it is given to the learner.

Resubmissions and retakes

Learners who do not successfully pass an assignment are allowed one opportunity to resubmit evidence for this assignment. If they still do not reach the required standard, they should be given one opportunity to retake a different assignment that covers the same learning outcome(s).

7 Administrative arrangements

Introduction

This section focuses on the administrative requirements for delivering a BTEC qualification. It is of particular value to Quality Nominees, Lead IVs and Programme Leaders.

Learner registration and entry

Shortly after learners start the programme of learning, you need to make sure that they are registered for the qualification. You need to refer to the *International Information Manual* for information on making registrations for the qualification.

Learners can be formally assessed only for a qualification on which they are registered. If learners' intended qualifications change, for example if a learner decides to choose a different pathway specialism, then the centre must transfer the learner appropriately.

Access to assessment

Assessments need to be administered carefully to ensure that all learners are treated fairly, and that results and certification are issued on time to allow learners to progress to their chosen progression opportunities.

Pearson's equality policy requires that all learners should have equal opportunity to access our qualifications and assessments, and that our qualifications are awarded in a way that is fair to every learner. We are committed to making sure that:

- learners with a protected characteristic 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 for undertaking a qualification and that this achievement can be compared fairly to the achievement of their peers.

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*.

Administrative arrangements for assessment

Records

You are required to retain records of assessment for each learner. Records should include decisions reached and any adjustments or appeals. Further information can be found in the *International Information Manual*. We may ask to audit your records, so they must be retained as specified.

Reasonable adjustments to assessment

To ensure that learners have fair access to demonstrate the requirements of the assessments, a reasonable adjustment is one that is made before a learner is assessed. You are able to make adjustments to internal assessments to take account of the needs of individual learners. In most cases, this can be achieved through allowing the use of assistive technology or adjusting the format of evidence. Any reasonable adjustment must reflect the normal learning or working practice of a learner in a centre or working within the occupational area. We can advise you if you are uncertain as to whether an adjustment is fair and reasonable. You need to plan for time to make adjustments if necessary.

Further details on how to make adjustments for learners with protected characteristics are given on our website, in the document *Supplementary guidance for reasonable adjustment and special consideration in vocational internally-assessed units*.

Appeals against assessment

Your centre must have a policy for dealing with appeals from learners. These appeals may relate to assessment decisions being incorrect or assessment not being conducted fairly. The first step in such a policy could be a consideration of the evidence by a Lead IV or other member of the programme team. The assessment plan should allow time for potential appeals after assessment decisions have been given to learners. If there is an appeal by a learner, you must document the appeal and its resolution. Learners have a final right of appeal to Pearson but only if the procedures that you have put in place have not been followed. Further details are given in the document *Enquiries and appeals about Pearson vocational qualifications and end point assessment policy*.

Dealing with malpractice in assessment

Malpractice means acts that undermine the integrity and validity of assessment, the certification of qualifications and/or may damage the authority of those responsible for delivering the assessment and certification.

Pearson does not tolerate actual or attempted actions of malpractice by learners, centre staff or centres in connection with Pearson qualifications. Pearson may impose penalties and/or sanctions on learners, centre staff or centres where malpractice or attempted malpractice has been proven.

Malpractice may occur or be suspected in relation to any unit or type of assessment within a qualification. For further details on malpractice and advice on preventing

malpractice by learners, please see Pearson's *Centre Guidance: Dealing with Malpractice*, available on our website.

The procedures we ask you to adopt vary between units that are internally assessed and those that are externally assessed.

Centres are required to take steps to prevent malpractice and to investigate instances of suspected malpractice. Learners must be given information that explains what malpractice is for internal assessment and how suspected incidents will be dealt with by the centre. The *Centre Guidance: Dealing with Malpractice* document gives full information on the actions we expect you to take.

Pearson may conduct investigations if we believe a centre is failing to conduct internal assessment according to our policies. The above document gives further information and examples, and details the penalties and sanctions that may be imposed.

In the interests of learners and centre staff, centres need to respond effectively and openly to all requests relating to an investigation into an incident of suspected malpractice.

Learner malpractice

The head of centre is required to report incidents of suspected learner malpractice that occur during Pearson qualifications. We ask centres to complete JCQ Form M1 (www.jcq.org.uk/malpractice) and email it with any accompanying documents (signed statements from the learner, invigilator, copies of evidence, etc.) to the Investigations Processing team at candidatemalpractice@pearson.com. The responsibility for determining appropriate sanctions or penalties to be imposed on learners lies with Pearson.

Learners must be informed at the earliest opportunity of the specific allegation and the centre's malpractice policy, including the right of appeal. Learners found guilty of malpractice may be disqualified from the qualification for which they have been entered with Pearson.

Failure to report malpractice constitutes staff or centre malpractice.

Teacher/centre malpractice

The head of centre is required to inform Pearson's Investigations team of any incident of suspected malpractice (which includes maladministration) by centre staff, before any investigation is undertaken. The head of centre is requested to inform the Investigations team by submitting a JCQ M2 Form (downloadable from www.jcq.org.uk/malpractice) with supporting documentation to pqsmalpractice@pearson.com. Where Pearson receives allegations of malpractice from other sources (for example Pearson staff, anonymous informants), the Investigations team will conduct the investigation directly or may ask the head of centre to assist.

Pearson reserves the right in cases of suspected malpractice to withhold the issuing of results/certificates while an investigation is in progress. Depending on the outcome of the investigation, results and/or certificates may not be released or they may be withheld.

We reserve the right to withhold certification when undertaking investigations, audits and quality assurance processes. You will be notified within a reasonable period of time if this occurs.

Sanctions and appeals

Where malpractice is proven, we may impose sanctions or penalties, such as:

- mark reductions for affected external assessments
- disqualification from the qualification
- debarment from registration for Pearson qualifications for a period of time.

If we are concerned about your centre's quality procedures we may impose sanctions such as:

- working with centres to create an improvement action plan
- requiring staff members to receive further training
- placing temporary blocks on the centre's certificates
- placing temporary blocks on registration of learners
- debarring staff members or the centre from delivering Pearson qualifications
- suspending or withdrawing centre approval status.

The centre will be notified if any of these apply.

Pearson has established procedures for centres that are considering appeals against penalties and sanctions arising from malpractice. Appeals against a decision made by Pearson will normally be accepted only from the head of centre (on behalf of learners and/or members or staff) and from individual members (in respect of a decision taken against them personally). Further information on appeals can be found in the JCQ Appeals booklet (<https://www.jcq.org.uk/exams-office/appeals>).

Certification and results

Once a learner has completed all the required components for a qualification, the centre can claim certification for the learner, provided that quality assurance has been successfully completed. For the relevant procedures, please refer to our *International Information Manual*.

Additional documents to support centre administration

As an approved centre, you must ensure that all staff delivering, assessing and administering the qualification have access to the following documentation. These documents are reviewed annually and are reissued if updates are required.

- *Pearson International Quality Assurance Handbook*: this sets out how we will carry out quality assurance of standards and how you need to work with us to achieve successful outcomes.
- *International Information Manual*: this gives procedures for registering learners for qualifications, transferring registrations and claiming certificates.
- *Regulatory policies*: our regulatory policies are integral to our approach and explain how we meet internal and regulatory requirements. We review the regulated policies annually to ensure that they remain fit for purpose. Policies related to this qualification include:
 - adjustments for candidates with disabilities and learning difficulties, access arrangements and reasonable adjustments for general and vocational qualifications
 - age of learners
 - centre guidance for dealing with malpractice
 - recognition of prior learning.

This list is not exhaustive and a full list of our regulatory policies can be found on our website.

8 Quality assurance

Centre and qualification approval

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

- Centres must have access to appropriate physical resources (for example equipment, IT, learning materials, teaching rooms) to support the delivery and assessment of the qualification.
- Staff involved in the assessment process must have relevant expertise and/or occupational experience.
- There must be systems in place to ensure continuing professional development for staff delivering the qualification.
- Centres must have in place appropriate health and safety policies relating to the use of equipment by learners.
- Centres must deliver the qualification in accordance with current equality and diversity legislation and/or regulations.

Continuing quality assurance and standards verification

On an annual basis, we produce the *Pearson International Quality Assurance Handbook*. It contains detailed guidance on the quality processes required to underpin robust assessment and internal verification.

The key principles of quality assurance are that:

- a centre delivering BTEC programmes must be an approved centre, and must have approval for the programmes or groups of programmes that it is delivering
- the centre agrees, as part of gaining approval, to abide by specific terms and conditions around the effective delivery and quality assurance of assessment; the centre must abide by these conditions throughout the period of delivery
- an approved centre must follow agreed protocols for standardisation of assessors and verifiers, for the planning, monitoring and recording of assessment processes, and for dealing with special circumstances, appeals and malpractice.

The approach of quality-assured assessment is through a partnership between an approved centre and Pearson. We will make sure that each centre follows best practice and employs appropriate technology to support quality-assurance processes, where practicable. We work to support centres and seek to make sure that our quality-assurance processes do not place undue bureaucratic processes on centres. We monitor and support centres in the effective operation of assessment and quality assurance.

The methods we use to do this include:

- making sure that all centres complete appropriate declarations at the time of approval
- undertaking approval visits to centres
- making sure that centres have effective teams of assessors and verifiers who are trained to undertake assessment
- assessment sampling and verification, through requested samples of assessments, completed assessed learner work and associated documentation
- an overarching review and assessment of a centre's strategy for delivering and quality assuring its BTEC programmes, for example making sure that synoptic units are placed appropriately in the order of delivery of the programme.

Centres that do not fully address and maintain rigorous approaches to delivering, assessing and quality assurance cannot seek certification for individual programmes or for all BTEC programmes. An approved centre must make certification claims only when authorised by us and strictly in accordance with requirements for reporting.

Centres that do not comply with remedial action plans may have their approval to deliver qualifications removed.

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