

Blended learning approach to delivering BTEC International qualifications

September 2021 to August 2022

IT and Computing Guidance for BTEC International Level 2 and 3 qualifications

Teaching, learning and assessment

Introduction

As COVID-19 may continue to impact upon teaching, learning and assessment through the academic year, affecting those learners who are part-way through their qualifications and those who are commencing this academic year, we have produced this guidance to support the effective delivery of BTEC course content. We are committed to ensuring that learners continue to benefit from the breadth of content of BTEC qualifications through adaptations in teaching and learning.

This document is intended to provide you with guidance for how you might adapt delivery for the sector's BTEC qualifications in the academic year of 2021-2022.

We will continue to work with our regulators and relevant sector bodies on any possible adaptations or accommodations in line with the relevant policy and regulatory considerations. Key aspects such as social distancing, safety, lost teaching time, subject content and practical activities have been considered from a sector perspective for your reference. However, it should be

noted that all of the guidance provided here must be considered within the context of any relevant guidance issued by your own centre, relevant governing and industry bodies, local and national government.

For further advice and guidance, please refer to the Teaching, Learning and Assessment pages on <u>Pearson's</u> website or contact us via the <u>Customer Support portal</u>.

We look forward to continuing to support you and your learners throughout this challenging time and wish you well for the coming year.

Resources

To help you with the delivery of a blended-learning programme, several resources are available. You can purchase digital *Study Texts* and *Teacher Resource Packs* from our website here to support you with the delivery of our Level 3 International qualifications (2021).

Additionally, there are free resources available here, that support the delivery of Level 3 (2010) QCF qualifications in some sectors. Note that to enter this page you will first need to accept the Terms and Conditions.

Units with resources available will be marked according to the following key:

* Study Text

[†] Teacher Resource Pack

‡ QCF Guides



Contents

- Overview of impact on sector
- Qualifications
 - BTEC International Level 3 Information Technology (2020)
 - BTEC Nationals Level 3 Information Technology (2010 QCF)
 - BTEC International Level 2 in Information Technology (2014)

Overview: IT and Computing

Adaptations to Assessments in 2021/2022

Please refer to the assessment section on the <u>International BTEC Adaptations page</u> for adaptations to assessments and qualifications for the 2021-2022 Academic Year.

Please note that not all qualifications can or will be adapted, and it is important that you refer to the relevant adaptation guidance for 2021-2022.

Some qualifications will not be adapted for one of the following reasons:

- An adaptation would impact the reliability and validity of the qualification
- The qualification is a licence to practice or primary purpose is progression to the workplace.

Learner eligibility

There are currently no plans to have these adaptations extend to learners who take assessments in 2022/23, regardless of when they are due to certificate.

Adaptations are only available in this academic year, for assessment due to take place between 1 September 2021-31 August 2022.

Social Distance

The delivery and assessment of these programmes does occasionally require group work or close proximity between learners, especially when learners work in pairs/small groups. A small number of assessments do require close proximity (e.g. practical work). Centres will need to have measures in place to enable these to be carried out safely. Where this is not possible, the use of simulations would be acceptable during the present COVID-19 situation. However, where assessment criteria require learners to undertake practical work (e.g. use of assessment command verb 'demonstrate' or 'carry out') a simulation is not acceptable.

Theory can be delivered by distance/blended learning methods and in some contexts (e.g. the Open University) this is the normal way of working.

Safety

Care is needed if an attempt is made to carry out practical work at home. This will not usually be possible. For example, laboratory work will probably require fewer learners in the lab, which may make the situation safer. However, lone working should not be attempted.

Lost time teaching

Centres must focus on ensuring that learners have an adequate foundation for the units that will be delivered in 2021-22. Learners will probably have missed some teaching during early to mid 2021 and tutors will need to in-fill as they deliver the programmes during 2021-22. This will require careful planning, particularly on programmes in which the learners were in other settings during 2020-21 and are likely to have had varied experiences (e.g. those who start BTEC level 3 in Year 11 in September 2021).

Flexibility of delivery and assessment

There is considerable latitude for the use of diverse delivery models and assessment models. Most assessments can employ written reports, presentations, posters, video or audio recordings and other methods and these can be used in remote delivery. Visits to industries

are valuable but not mandatory and work experience is not required in these programmes.

What is important to retain the validity of the sector's qualifications?

One of the biggest challenges is providing the learners with the skills required to complete assessment tasks for practical outcomes, for example creating a programme or updating hardware and software. As contact time between staff and learners may be limited, centres should prioritise contact time for practical work, as theory can be delivered remotely. Centres may decide to deliver optional units which do not require practical work in assessment.

Are there other methodologies that can be used to support the purpose of the qualification?

As long as practical work is employed where required, a wide range of assessment methods can be used in these programmes. However, time-constrained assessments are likely to be a poor substitute for other methods as they present inappropriate barriers to the demonstration of required learning outcomes. If specialised software is



required, the centre could investigate software licensing, so that the learners can be given a copy of the software or access the software online from home.

The use of specialist software, e.g. Packet Tracer, to virtually create and test a network environment may be an alternative to traditional hardware methods.

For practical units (hardware/software/network installations) it may be difficult to facilitate the physical resources required for the assessment through remote or online learning. On this occasion, a theoretical explanation of the practical tasks could be presented by the learner.

To limit possible plagiarism an assignment brief could be produced to accommodate the theoretical response e.g. theoretical descriptions on how to install hardware or software or implement a network environment.

Teaching, Learning and Assessment: IT and Computing

Unit Title	Remote delivery (✓/X/partially)	Socially distanced (/ X)	Delivery Guidance	
	BTEC I	nternation	al Level 3 (2021) - Information Technology	
*Unit 1: Information Technology Systems - Strategy, ✓		√	This unit is assessed using a Pearson Set Assignment Brief and is excellent for online delivery. Teaching and learning can be carried out remotely using a variety of online platforms e.g. google classroom, zoom, Microsoft Teams etc.	
Management and Infrastructure			Learners can produce an individualised written response to demonstrate knowledge obtained throughout the unit delivery.	
		✓	As a practical unit, all learners should have access to database software to enable them to complete the assignment for the unit.	
*Unit 2: Creating Systems to Manage Information	✓		Theoretical teaching and learning can be carried out remotely using a variety of online platforms.	
			Ensuring that learners can practice Database development skills can be prioritised during classroom time.	
*Unit 3: Using Social Media in Business	√	√	As a practical unit, all learners should have access to a variety of Social Media websites (as listed in the specification) and software to enable the learner to create and implement social media environments.	



			Theoretical teaching and learning can be carried out remotely using a variety of online platforms.
			Ensuring that learners can practice the skills required to set up of a variety of social media platforms can be prioritised during classroom time.
			Learners are required to review the statistical data generated by their Social Media websites, including an analysis of how it was used to optimise the use of Social Media to meet the business requirements. Centres can provide the learners with simulated statistical data to analyse.
			Working and creating a Social Media campaign for a business is valuable but not mandatory. A Tutor and another member of the class can act as clients and review the Social Media plan online for the learner.
*Unit 4: Programming *Unit 5: Data Modelling			As practical units, all learners must have access to a range of specialist software to allow them to use a variety of tools and techniques (given in the unit content) to complete the assessment. Theoretical teaching and learning can be carried out remotely using a variety of online platforms.
*Unit 6: Website Development	Partially	✓	Practical Software demonstrations can also be carried out remotely using a variety of online platforms.
*Unit 8: Computer Games Development *Unit 14:			Ensuring that learners can practice the specialist application skills can be prioritised during classroom time.
Customising and			



Integrating Applications Unit 16: 2D and 3D Digital Graphics Unit 17: Digital Animation and Effects Unit 18: The Internet of Things			When feedback is required, Tutors or/and other members of the class can provide feedback, which can be used to refine and improve the proposed solution.
			As a practical unit, learners must have access to an integrated development environment with support for mobile development and mobile devices to meet assessment criteria. Centres can provide the learner with at least two different simulated apps implemented on different mobile platforms for Learning aim A.
*Unit 7: Mobile Apps Development	Partially	√	Practical delivery elements can be prioritised during classroom time such as the investigation of at least two different apps installed on at least two different mobile platforms.
			Ensuring that learners can practice Mobile app development skills can also be prioritised during classroom time.
			Tutors and other members of the class can provide online feedback on the mobile app designs.



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Unit 9: IT Project Management	✓	√	This unit is excellent for online delivery. Learners can produce an individualised written response for Learning aim A to demonstrate knowledge obtained throughout the delivery. With a project portfolio created from implementing either a 'live' or 'simulated' project using an appropriate methodology for Learning aim B, C and D. As a theoretical unit teaching and learning can be carried out remotely using a variety of online platforms. Assessors can provide the learners with a 'live' or 'simulated' project.
Unit 10: Big Data and Business Analytics	√	√	As a theoretical unit teaching and learning can be carried out remotely using a variety of online platforms. This unit is excellent for online delivery. Tutors can provide the learners with pre-selected data sets to analyse (one for learning aim B, the other for learning aim C). Learners can produce an individualised written response to demonstrate knowledge obtained throughout the delivery of the unit.
*Unit 11: Cyber Security and Incident Management	✓	√	This unit is assessed using a Pearson Set Assignment Brief. The details of the organisation will be given to learners in the set assignment. This unit is excellent for online delivery. Teaching and learning can be carried out remotely using a variety of online platforms. Learners can produce a written response to demonstrate knowledge obtained throughout the delivery of the unit.



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		✓	As a practical unit, learners should have access to IT systems to complete the assignment.			
			When feedback is required, Tutors or other members of the class can provide feedback on the IT support and management plan.			
*Unit 12: IT Technical Support and	Partially		Ensuring that learners can practice routine support and management activities on an IT system can be prioritised during classroom time.			
Management			If a COVID-19 safe environment is difficult to manage the learners can provide a theoretical report on how they would carry out routine support management activities. Care should be taken to limit plagiarism.			
			A written response demonstrating the unit assessment requirements such as carrying out routine support and management activities on an IT system.			
*Unit 13: Software Testing	✓	√	As a practical unit, the learners should have access to an integrated development environment and test management software.			
			Unit teaching and learning can be carried out remotely using a variety of online platforms, integrated development environment and test management software.			
			The Assessor can provide the software program and documentation to be tested.			
			Learners can produce testing results in the form of graphical and written methods to demonstrate the unit assessment requirements.			



		As a practical unit, learners should have access to Cloud Storage and Collaboration Tools.
./		Unit teaching and learning can be carried out remotely using a variety of online platforms.
•	•	Learners can produce an individualised written report to demonstrate the skills and knowledge obtained throughout the delivery of the unit.
		The solutions can be created using live hosted resources (self-hosted or using third-party servers) or simulated using virtual machine(s).
		As a theoretical unit teaching and learning can be carried out remotely using a variety of online platforms.
✓	√	This unit is excellent for online delivery. Learners can produce an individualised written response to demonstrate the skills and knowledge obtained throughout the delivery of the unit. For Learning aim C, the learners can present a plan for a start-up IT enterprise remotely through a variety of online platforms.
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Unit Title	Remote delivery (✓/X/partially)	Socially distanced (✓/X)	Delivery Guidance
В	TEC Internation	onal Level :	3 (2010) – Information Technology
‡Unit 1: Communication and Employability Skills for IT ‡Unit 2: Computer Systems ‡Unit 3: Information Systems ‡Unit 4: Impact of the Use of IT on Business Systems ‡Unit 8: e-Commerce ‡Unit 11: Systems Analysis and Design ‡Unit 17: Project Planning with IT Unit 19: Computer Systems Architecture Unit 21: Data Analysis and Design ‡Unit 23: Human Computer Interaction Unit 26: Mathematics for IT Practitioners	ü	7 € ✓ E F L	These are theoretical units are excellent for remote learning. Teaching and learning can be carried out remotely using a variety of online platforms. Evidence could be generated and submitted using an online platform. Learners can produce an individualised written response to demonstrate the skills and knowledge obtained throughout the delivery of the unit.



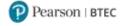
Unit 33: Supporting Business Activities Unit 34: Business Resources			
‡Unit 5: Managing Networks Unit 7: Organisational Systems Security ‡Unit 9: Computer Networks ‡Unit 10: Communication Technologies Unit 12: IT Technical Support Unit 13: IT Systems Troubleshooting and Repair Unit 24: Controlling Systems Using IT Unit 25: Maintaining Computer Systems Unit 29: Installing and Upgrading Software Unit 32: Networked Systems Security	✓	✓	As practical hardware or system units, learners require access to specialised resources and IT Systems. The system theory and practical demonstrations can be carried out remotely using a variety of online platforms. Learners can produce an individualised written response to demonstrate the skills and knowledge obtained throughout the unit. Ensuring that learners can practice IT System skills can be prioritised during classroom time. If a COVID-19 safe environment is difficult to manage, the learners can provide a theoretical report on how they would carry out the unit activities. Care should be taken to limit plagiarism.



‡Unit 6: Software Design and Development ‡Unit 14: Event Driven Programming Unit 15: Object Oriented Programming Unit 16: Procedural Programming Unit 18: Database Design ‡Unit 20: Client Side Customisation of Web Pages ‡Unit 22: Developing Computer Games Unit 27: Web Server Scripting ‡Unit 28: Website Production ‡Unit 30: Digital Graphics ‡Unit 31: Computer Animation	✓	✓	As practical units, learners must have access to the specialist software required to enable learners to meet assessment criteria. Software theory and practical demonstrations can be carried out remotely using a variety of online platforms. Practical delivery elements of these units can be prioritised during classroom time. Ensuring that learners can practice the required application skills can also be prioritised during classroom time.
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Unit Title	Remote delivery (✓/X/partially)	Socially distanced (< / X)	Delivery Guidance
BTEC Inte	ernational Le	vel 2 (2014) - I	nformation Technology
Unit 1: Communicating in the IT Industry Unit 2: Working in the IT Industry Unit 5: Supporting Organisations with IT Unit 6: Project Planning using IT Unit 12: IT Support Unit 15: Mathematics for IT Unit 22: Doing Business Online	√	✓	These are theoretical units are excellent for remote learning. Teaching and learning can be carried out remotely using a variety of online platforms. Evidence could be generated and submitted using an online platform. Learners can produce an individualised written response to demonstrate the skills and knowledge obtained throughout the delivery of the unit.





Unit 4: Business IT Skills Unit 9: Customising Software Unit 16: Database Systems Unit 17: Website Development Unit 18: Software Design Unit 19: Object Oriented Programming Unit 20: Procedural Programming Unit 21: Event Driven Programming Unit 23: Computer Graphics Unit 26: Developing Computer Games Unit 27: Spreadsheet Modelling Unit 28: Multimedia Design Unit 29: Presenting Information Using IT Unit 30: Animation Techniques Unit 31: Interactive Media Production Unit 32: Software Design and Development Unit 33: Database Design Unit 34: Website Production Unit 35: Digital Graphics Unit 36: Spreadsheet Modelling	•		As practical units, learners must have access to the specialist software required to enable learners to meet assessment criteria. Software theory and practical demonstrations can be carried out remotely using a variety of online platforms. Practical delivery elements of these units can be prioritised during classroom time. Ensuring that learners can practice the required application skills can also be prioritised during classroom time.
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