INFORMATION TECHNOLOGY



Your guide to the changes for 2022

Following Ofqual's consultation on arrangements for the assessment of VTQs in 2021/22, we've reviewed units in our Cambridge Nationals and Cambridge Technicals suites and the guidance provided last year on changes to requirements or alternative approaches to producing work for assessment.

Our changes are designed so that teaching, learning and assessment can continue in the event of any further disruption as a result of a changing public health situation, and to make sure that the learning outcomes and assessment criteria can still be met.

Please use the specification and assignments available on our website, alongside this document, to plan and carry out assessment in 2021-22.

Some of our guidance in this document refers to candidates completing tasks at home **as long as** enough measures are put in place to authenticate their work. We have produced a separate guide on <u>assessing learners work from home</u> to help you authenticate candidates' work.

General notes

Due to the current situation within centres in relation to social distancing/bubble groups, centres should consider selecting unit combinations which are easily accessible to all candidates with respect to hardware, software and resources. Centres should only use any adaptations indicated below if it can be proven that there is no alternative in order for candidates to achieve the qualification due to timescales e.g. **final year** of study. Candidates who are in their first year of study should refrain from working towards units where adaptations would be considered during this time as there is the opportunity to complete these units in the appropriate format once the social distancing/bubble groups situation is removed.

The difficulty with delivery and assessment is that the practical skills and access to equipment may be limited. There are some online platforms available which allow students to virtualise the practical aspects of some software and computer systems units, but these are a poor substitute for hands on practical (i.e. developing an IT solution for a given assignment tasks for chosen units) experience with a real system. Units such as installing computer hardware and installing computer software options and their variants in level 2 and 3 for the 2016 suite, are difficult to replicate in a remote learning or restricted learning environment (with bubble groups of students that may limit access to computer devices and software applications). In addition, the units can present problems if delivered using social distancing and cleaning equipment between sessions would be very hard to achieve given the sensitive nature of the components used. Software related units may be equally challenging for any remote (or bubble groups) working as students may not necessarily have full time access to the packages required for effective implementation of the software solutions required for the unit assessments. When considering software units, it is advisable for centres to consider software that is easily accessible to all candidates e.g. open source/free software that carries out similar functions as other software normally used.

Suggested adaptations

Qualification (Level, Year)	Unit number(s) and title(s)	Learning objectives (LO)	Criteria	Issues identified in the unit(s)	Adaptations / solutions								
Level 2 2016	Unit 3: Building IT Systems	LO4	P5: Build & test the IT system P6: Configure & test the IT system M3: Carry out acceptance testing with the client D2: Evaluate the results from testing and recommend improvements.	P5 requires the candidates to build and test the IT system which they have proposed and selected components for in LO2 and LO3. P6: requires the candidates to configure and test the system they build for P5.	This unit is mandatory for the IT Technical Practitioner pathway. The pass criteria cannot be reasonably assessed via remote assessment or a restricted assessment environment. Social distancing and the requirement to clean equipment in between assessments would be difficult to achieve. Computer components are also very sensitive and difficult to clean which potentially could result in damage to them. A potential adaptation is as follows: P5/P6: No adaptation can be implemented as it is essential that candidates demonstrate their competence at the practical aspects of building and configuring an IT system.								
									carry of the with t			M3: requires the candidates to carry out acceptance testing of the system they have built with the client (who can be the	M3: the merit criterion poses a problem as the candidates may not have access to the client to carry out the acceptance testing. An adaptation could be implemented as follows:
										teacher acting as the client)	The candidates could prepare an acceptance testing document for the client to complete, based on the IT system that they have proposed and selected the components for (LO2 & LO3). The acceptance testing document could be completed by the client/teacher and returned to the candidates.		
						D2: The candidates are required to evaluate the results of the tests that they have conducted of the system that they built.	D2: an adaptation could be implemented. Candidates will have the acceptance testing document from the adaptation above and could be given a completed test plan for the testing of an IT system. The candidates could then evaluate the test results from both documents and carry out the evaluation recommending how the systems could be improved.						

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					It should be noted that if candidates are also working towards Unit 10 and/or Unit 11, there is the potential for the candidates to be provided with the same scenario for all three units. Centres could provide the candidates with a context for the IT system where they would have to install hardware and software. By explaining the process, they would follow, it would be evidence across all units.					
					Whilst the assessment methods indication above emphasise the use of reports, candidates could have a recorded discussion with their assessor/teacher. However, these must be well planned so that candidates can prepare for the discussions, make notes on the processes they could follow and consideration. It would also be advisable that the discussions are broken down into smaller recordings suitably labelled. This ensures that recordings are easier to assess and of course moderate.					
Level 2 2016	Unit 5: Creating business	LO3: Be able to present design	P3: create a prototype of the design solution	The main issue can be access to software for a solution for a	This is a mandatory unit within the Digital Business Practitioner pathway.					
	solutions	solutions to stakeholders	P4: Present	their solutions to identified stakeholders via a presentation. Access to more than one stakeholder could present a problem (P4) If candidates are unable to	The following adaptations could be considered:					
		stakenoiders	the prototype to identified stakeholders M1: Modify the design in response to stakeholder feedback		P3: Candidates are only required to create a prototype of their proposed solution from LO2. A prototype can be presented in many formats such as: • Sketches and diagrams					
					Storyboards					
					ii carialdates are unable to	Presentations with visualisation diagrams/imagesMock-ups				
										feedback from stakeholders, they will not be able to modify their designs (M1)
					P4: The presentation of the prototype to the stakeholders could be in the following formats:					
					Video of the candidate delivering their prototype virtually e.g. recording a Teams meeting between the candidate and the stakeholder					
					Presentation slides plus detailed speaker notes					
					Formal report to client with appropriate images					

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					The stakeholder will have to provide written feedback to each candidate (must be individual to each candidate) on the prototype solution.
					M3: The candidate must provide evidence of the modifications they make to their design documentation based on the feedback they have received. At least two modifications should be provided for the candidates to consider.
		LO4: Be able to use IT applications to meet business needs	P5: Create the proposed business solution P5: Gather feedback from stakeholders of the proposed solution M2: Test the solution to confirm functionality D2: Assess the appropriateness of the solution to meet business needs	Candidates need access to appropriate software to actually create their solutions. Centres need to consider the scenarios/ context they use to meet the assessment criteria so that candidates can use readily available software	Centres could provide candidates with a scenario/assignment which provides them with the opportunity to use readily available/accessible software. Examples within the teaching content include spreadsheets, databases, word processing, presentations. Suitable open-source software is available which is free. Candidates would have to learn any different methods and processes which do not follow a similar style to the software they are used to. P5: Ensure that the candidates are provided with a context/ scenario that will allow them to access readily available software (consider the use of open source software as necessary). Candidates will then use the software to create their solutions. M2: The testing of the solution can be evidenced by the completion of a test plan, which includes all aspects of the solution which required testing, expected results, actual results and any remedial action taken. All tests requiring remedial action should also be retested and included on the test plan. It is not necessary for screenshots of the testing to be included. P5: The stakeholder will have to provide written feedback to each candidate (must be individual to each candidate) on the created solution. D2: The assessment of the appropriate solution can be evidenced through: • a formal report • a presentation with detailed speaker notes. Candidates
					should not be writing large amounts of text on presentation slides but using bullet points containing a few key words. The detail should be in the speaker notes

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					 a video or audio of a discussion between the candidate and the teacher. The candidates must introduce themselves e.g. their name, the location where they are participating in the discussion and the date and time. Candidates should be encouraged to prepare for the discussions by making notes on: their understanding of what the business need is their analysis of the feedback from the stakeholder(s) any future improvements, enhancements, developments which could be implemented to the solution Although the criteria states "stakeholders", it would be acceptable for there just being one stakeholder (e.g. the teacher).
Level 2 2016	Unit 9: Supporting IT functions	LO2: Be able to diagnose hardware faults LO3: Be able to diagnose software faults	P2: Generate a list of the tools that can aid the diagnosis of hardware faults. P3: Use suitable tools and techniques to diagnose hardware faults M2: Analyse the results of the diagnostic testing of hardware results D1: Report to the client about the hardware faults diagnosed. P4: Select suitable tools and techniques to diagnose software faults.	LO2 and LO3 requires candidates to diagnose hardware and software faults. Due to the current environment, it may be difficult for centres to provide facilities for candidates to complete P3 and P5 in particular where they are required to carry out the diagnosis activities.	This unit is mandatory for the IT Technical Practitioner pathway. For LO2 and LO2, it is important that centres provide candidates with suitable context/scenarios that will allow them to demonstrate their competence by providing case studies. The faults provided within the case studies for hardware and software should allow the candidates to determine what the faults are based on the teaching that has taken place and how they would diagnose those faults using appropriate tools and techniques. The adaptations indicated below can be applied to LO2 and LO3. LO2 and LO3 require the diagnosis of faults. Therefore, there should be at least two hardware faults and two software faults for the candidates to diagnose. Each fault should be significantly different from the other. For instance, one hardware fault could be a blank screen on start-up, the second fault could be no internet connection. Based on the scenario that the candidates have been provided with for the hardware and software faults, they can provide evidence as follows: P2/P4 – provide a list of the tools and techniques they would use to diagnose each of the faults.

Qualification Unit num (Level, Year) and title(s		Criteria	Issues identified in the unit(s)	Adaptations / solutions
(Level, Year) and title(s) objectives (LO)	P5: Use suitable tools and techniques to diagnose software faults M3: Analyse the results of the diagnostic testing of software results	unit(s)	Based on the scenario that the candidates have been provided with for the hardware and software faults, they can provide evidence as follows: P2/P4 – provide a list of the tools and techniques they would use to diagnose each of the faults. P3/P5: for each of the faults the candidates could explain how they would use the tools and techniques that they listed for P2/P4. The evidence could be in the format of a report, or an instruction sheet (to be used by other IT support technicians). The explanations must clearly indicate the processes/steps the candidates would take for each of the diagnoses of faults. M2/M3: Candidates could be given completed test plans (one for hardware and one for software) which they analyse. The test plans must include: Type of test Expected results Actual results The analysis that the candidates carry out would be as follows: what they believe the problem to be what tools/techniques they would use to rectify the problem how they would rectify the problem enter a further test on the test plan indicating what they would test and the expected results. The test plans could be given to the candidates as the scenario/context they have to work from. The tools/techniques they include in their analysis could also be used for P2/P4. The explanation of process they would follow to rectify the faults in their analysis could also provide evidence for P3/P5.

Qualification (Level, Year)	Unit number(s) and title(s)	Learning objectives (LO)	Criteria	Issues identified in the unit(s)	Adaptations / solutions
Level 2 2016	Unit 10: IT software installation and upgrade Unit 11: IT hardware installation and upgrade	Unit 10 - LO2: Be able to prepare for IT software installation and upgrade Unit 11 – LO2: Be able to prepare for IT hardware installation and upgrade	Unit 10 - P2: prepare the installation of IT software and upgrade Unit 11 – P2: prepare the installation of IT hardware and upgrade	Candidates are required to prepare for installation and upgrade of IT software and hardware and install/upgrade hardware and software on an IT system. Due to the current environment with social distancing, this may provide similar problems to centres as identified within Unit 3: Building IT systems.	Unit 10 (P2)/Unit 11 (P2): Candidates could be assessed using the following adaptation: written report verbal/videoed discussion with the teacher. The candidates must introduce themselves e.g. their name, the location where they are participating in the discussion and the date and time. Candidates should be encouraged to prepare for the discussions by making notes on: their understanding of the requirements for the hardware/software installations/upgrades why they would select to upgrade as opposed to installing new hardware/software the tools, resources, and techniques they would use and why a test plan identifying the tests they would carry out and what the actual results should be whether they are going to back up the system. The scenario provided to candidates should force the candidates to: state what requires backing up e.g. the system/data the type of backup they would do and why the medium used to backup dentification of any compatibility considerations the health and safety that needs to be considered and why. a work plan detailing the steps they would take to carry out the practical activity. Unit 10 P3/Unit 11 P3: No adaptation is possible as candidates are required to prove their knowledge, skills and understanding with respect to be able to effectively install/upgrade hardware and software.

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		Unit 10 – LO3: Be able to install and upgrade IT software Unit 11 – LO3: Be able to install and upgrade IT hardware	Unit 10 – P3: Carry out the installation and/ or upgrading of IT hardware Unit 11 – P3: Carry out the installation and/ or upgrading of IT software. Unit 10 – P4: Conduct tests on IT software installation and/or upgrade Unit 11 – P4: Conduct tests on IT hardware installation and/or upgrade Unit 10 – M2: Review the results of the tests to confirm functionality and compatibility of installation and upgrade. Unit 11 – M2: Review the results of the tests to confirm functionality and compatibility and compatibility of installation and upgrade.		Unit 10 P4/M2: Unit 11 P4/M2: Candidates can prepare a test plan (they may have already carried this out for P2). They would include for these criteria the rationale for the tests they would carry out and the expected results they identified. The justification for the tests can be a recorded discussion or written. In addition, they would need to explain how they would carry out the tests. The assessment could be adapted as follows: Centres could provide the candidates with a completed test plan for the installation and/or upgrade of hardware and software (if both units are selected, the tests can go on the same plan). The test plans should indicate issues with the installation/upgrade so that candidates have to consider issues surrounding compatibility. Candidates will review the test plan results and confirm whether the installations/upgrades are: • functioning correctly • compatible with the system (candidates would need to be provided with information about the system and/or the identified issues clearly stated) D1 for Units 10 and 11, could be assessed using the test plan presented for M2. Based on their review of the results, the candidates could then present a report or audio discussion where they explain their evaluation. The evaluation should include: • does it meet organisational and/or client requirements? • does it function as required? • is it compatible with other hardware and software on the system? • is the system still secure? • is the original data available and accessible? • were there issues which could not be resolved?

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			Unit 10 – D1: Evaluate the effectiveness of the installation and/ or upgrading of IT software Unit 11 – D1: Evaluate the effectiveness of the installation and/or effectiveness of the IT hardware		In order to present a good evaluation, the candidates should be provided with a detailed explanation of: the organisational/client requirements the hardware/software currently installed the security of the system whether any date was backed up and readily available
2016 – Level 2	Unit 12: Creating a computer network	LO3: Be able to create computer networks to meet business needs	P4: Install and configure hardware for the computer network P5: Configure the operating systems to allow file and resource sharing M2: Test the installation and configuration of the computer network to confirm functionality	LO3 and LO4 requires students to be able to create and secure the networks to meet business needs If centres are offering this units then under current guidelines and the requirement for social distancing/bubble groups, it may be difficult to provide facilities for the students to carry out the practical activities to complete the tasks.	 This is a mandatory unit within the IT practitioner pathway LO2: Candidates are required to prepare for the installation of computer networks to meet business needs. This includes: reviewing a network diagram and outlining the requirements selecting equipment and components to support the installation of the network select appropriate security measures to support the network installation The same scenario can be followed through for LO3 and LO4.
		LO4: Be able to secure computer networks to meet business needs	P6: Apply security settings to the computer network M3: Test the security of the computer network		P4/P5/M2/P6/M3: No adaptations possible for these criteria as candidates are required to prove their knowledge, skills and understanding when installing and configuring hardware for a computer network. They must prove their competence for the testing of the network and the application and testing of security settings.

Support

OCR's team of expert Subject Advisors has created videos, webinars, and other resources to guide you through these changes and help you prepare your students.

These resources can be found on the qualification page on our website.

Contact us

If you would like to contact us, you can do so at:

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