INFORMATION TECHNOLOGY

OCR
Oxford Cambridge and RSA

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 assessing learners work from home 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
2016 (Level 3)	Unit 18: Computer Systems - Hardware	LO3: Be able to build or upgrade computers	P4: Install different hardware components on an identified computer system	LO3 and LO4 requires students to 'be able to build or upgrade computers / Install different hardware components on an identified computer system' and 'be able to test and evaluate the functionality of computer systems/Plan and implement test activities for the identified computer system, rectifying any errors'. If centres are offering this unit then with current guidelines on social distancing/bubble groups, it may be difficult for some centres to provide facilities to students to complete the LO's tasks.	*Candidates are required to install the hardware components to build or upgrade a system. As the criteria refers to different components, then there has to be a minimum of two very different types of components installed.* *P4: **No adaptation** can be applied as it is essential that candidates demonstrate their competence at the practical aspects of installing hardware components.*
			M2: Recommend preventive maintenance activities for the identified computer system		*M2: No adaptation is required for this assessment criteria as candidates can recommend preventative maintenance activities based on the context they have been provided with.*
			P5: Implement preventative maintenance requirements for the identified computer system		*P5: Candidates could explain in detail through some form of audio recording, report or technical guide the steps they would take to implement the preventative maintenance measures.*

Qualification (Level, Year)	Unit number(s) and title(s)	Learning objectives (LO)	Criteria	Issues identified in the unit(s)	Adaptations / solutions
		LO4: Be able to test and evaluate the functionality of computer systems	P6: Plan and implement test activities for the identified computer system, rectifying any errors		*P6: Candidates should prepare a test plan identifying the tests they would carry out on the system they have installed the components on. They must also identify the expected results they would get for each test if the components are installed successfully.* *The candidates then give their test plans to their assessors who provide some results against some of the tests indicating that there are errors/faults. The candidates must be provided with different faults to "rectify" and not all given the same faults to mitigate the risk of malpractice.*
			M3: Select and implement benchmarking activities for the identified computer system		*M3: Candidates could provide some form of audio recording or a technical guide and provide the following:* *• the benchmarking activities they would use for the identified computer system* *• a step by step description of how they would implement the benchmarking activities*
			D2: Analyse results from benchmarking activities for the identified computer system		*D2: Candidates could be given test results from benchmarking activities for the identified computer system. It is important that candidates are given test results which are different to mitigate the risk of malpractice. As activities are plural, each candidate should be provided with the results from two different benchmarking tests. Candidates would then analyse the results from the tests and provide a report or participate in an audio discussion (which must be planned carefully in advance by the candidate, so that they can prepare what they are going to say).*

Qualification (Level, Year)	Unit number(s) and title(s)	Learning objectives (LO)	Criteria	Issues identified in the unit(s)	Adaptations / solutions
2016 (Level 3)	Unit 19: Computer Systems - Software	LO2: Be able to implement software installations and upgrades to meet specified user requirements	P5: Carry out software installations and upgrades to meet specified business requirements	LO2 and LO3 requires students to be able to 'implement software installations and upgrades to meet specified user requirements' and 'conduct system maintenance using utility software'.	*P5: **No adaptation** can be applied as it is essential that candidates demonstrate their competence at the practical aspects of installing/upgrading software.*
			P6: Conduct system testing for software installations and upgrades	If centres are offering this unit then with current guidelines on social distancing/bubble groups, it may be difficult for some centres to provide facilities to students to complete the LO's tasks.	*Candidates are required to complete a test plan for P6. They are required to identify the test number, the type of test, what is being tested and the expected result from the testing. They would complete the test plan whilst testing the actual system during and after installation/upgrade of software. The following adaptation can be implemented to fully meet the criterion.*
					The candidates then give their test plans to their assessors who provide some results against some of the tests indicating that there are errors/faults. The candidates must be provided with different faults to "rectify" and not all given the same faults to mitigate the risk of malpractice.
					Candidates would have planned the maintenance activities (P7) and documented the benefits of the maintenance activities (M3). The following adaptation could be implemented to achieve P8 and D2.
		LO3: Be able to conduct system maintenance using utility software	P8: Implement maintenance activities for the specified system		*P8: Candidates could produce a guide for new technicians or an audio recording describing the implementation for each maintenance activity. The candidates would need to include the following:* • *based on the maintenance plan, explain which maintenance activity they are describing* • *describe in detail the process they would follow* • *describe any safety precautions they need to implement* *This would be repeated for each activity.*

Qualification (Level, Year)	Unit number(s) and title(s)	Learning objectives (LO)	Criteria	Issues identified in the unit(s)	Adaptations / solutions
			D2: Evaluate implemented maintenance activities for the specified system, post maintenance activities		*D2 would need a form of adaptation because the candidates' analysis would be dependent on results from the testing and benchmarking comparisons of the system.* *Candidates could be provided with a completed test plan and benchmarking reports for the system. They could then analyse the results, identify any issues and describe the potential solutions. In addition, they could describe any future considerations for the system.* *It is important that candidates are given different results to analyse to mitigate the risk of malpractice*
2016 (Level 3)	Unit 20: IT Technical Support	LO2: Be able to diagnose faults and solutions for computer systems	P2: Perform diagnosis of simple faults with an identified computer system and implement solutions M2: Investigate complex faults with an identified computer system and implement solutions P3: Document faults and solutions for computer systems D1: Test computer system post fault resolution and interpret results	LO2 requires students to be able to diagnose faults and solutions for computer systems. If centres are offering this unit then with current guidelines on social distancing/bubble groups, it may be difficult for some centres to provide facilities to students to complete the LO's tasks.	*It must be noted that for P2 and M2 the candidates are required to diagnose at least two simple faults and two complex faults. The following adaptation could be implemented:* • *assessors could provide the candidates with simple and complex faults for an identified system.* • *candidates would then provide a detailed explanation for how they would carry out the diagnosis for each fault and the solutions they would implement. The explanations could be provided as a written guide for new technicians or an audio recording of the candidates providing their explanations. The candidates would need to plan well for the audio recordings and for each fault, provide the detail of the process they would follow to carry out the diagnosis. What solutions they would implement and how they would implement the solutions.* *It is important that candidates are provided with different faults to diagnose in order to mitigate the risk of malpractice.* *P3: candidates can document the faults and solutions provided by the assessors as if they were faults they had investigated and implemented solutions for through practical activities.* *D1: candidates could create a test plan as if they were carrying out the practical activities which would include the test and the expected results. Assessors could insert test results on the test plans for the candidates which the candidates would interpret in the normal way.*

Qualification (Level, Year)	Unit number(s) and title(s)	Learning objectives (LO)	Criteria	Issues identified in the unit(s)	Adaptations / solutions
2016 (Level 3)	Unit 5: Virtual and augmented reality	LO3: Be able to create a virtual or augmented reality resource	P4: Develop a virtual reality or an augmented reality resource for an identified purpose P5: Test the product during creation and once complete M2: Make adjustments to the design based on outcomes of testing	The issue with this unit is in relation to the accessibility of either virtual or augmented reality software. If candidates cannot access the software, this prevents the candidates completing P4, P5 and M2 for LO3.	*This unit is a mandatory pathway unit for the Emerging technology practitioner pathway. There is not an alternative unit that could be selected to comply with the requirements for the focus of the pathway.* *There is **no adaptation** for P4 of this unit as it is the development of an actual product and not a prototype. Centres tend to use free software for augmented reality (and in some instances virtual reality), which can be downloaded and installed on any PC/ tablet. If candidates are restricted from accessing software in the centre or virtually through the centre's online platform, they could download the software if they have their own IT equipment.*
2016 (Level 3)	Unit 9: Product development	LO3: Be able to implement and test products LO4: Be able to carry out acceptance testing with clients	P4: Develop the product in line with the agreed design solution P5: Conduct product testing M3: Analyse the results of testing and recommend improvements and enhancements to the design solution P6: Carry out acceptance testing for users in line with the agreed design solution D2: Discuss with the identified client potential enhancements, upgrades and maintenance of the final product	The main issue with this unit is the candidate access to the relevant software to create a complete product.	*This is an optional unit within all pathways for the diplomas and for the extended certificate. Centres should consider an alternative optional unit within the relevant qualifications if there is restrictive access to appropriate software for the candidates. Alternatively, the centres could provide the candidates with access to alternative software e.g. open-source software which would allow them to create the same product. If the candidates can develop the actual product (P4), they will be able to test the product (P5) and analyse the test results (M3). If candidates have access to alternative sources of software which would enable them to develop the same product, then the assessment criteria could be evidenced in the normal way.* *Candidates will be able to achieve P6/D2 through remote access with their "client" (who may be the teacher). In order to carry out acceptance testing, candidates must develop an acceptance testing plan for the users and provide evidence that their solution has been tested accordingly. The evidence would be the completed user test plans with any feedback in connection with the design solution.* *Discussions between the identified client could be through email correspondence or via a recorded webcast or similar platform. Alternatively, the candidate could be recorded having a discussion with the client.*

Qualification (Level, Year)	Unit number(s) and title(s)	Learning objectives (LO)	Criteria	Issues identified in the unit(s)	Adaptations / solutions
2016 (Level 3)	All remaining internally assessed units.				*Where candidates have to create prototypes, it must be noted that these can take any format which provides a client/stakeholder with an overview of how the design solution would look/work etc. The different formats for prototypes can be:* • *presentations with suitable diagrams/images* • *storyboards* • *wireframes* • *any form of design documentation* *Centres are reminded that candidates must not be producing final working products.* *The presentation of the prototypes to stakeholders, the subsequent feedback from the stakeholders and negotiations between the stakeholders and the candidates can be evidenced as follows:* • *discussions can be an audio or video recording* • *a formal report provided to the stakeholder/client* • *a presentation with voice over provided to the stakeholder/ client* *The feedback from the client/stakeholder can be in a written format or an audio/video recording which is linked to the presentations from the candidates. If witness statements are used, they must be individual to each candidate and provide the context and detailed feedback.*

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:

✉ vocational.qualifications@ocr.org.uk

🐦 [@OCR_Vocational](#)

📞 01223 553998