Summary of update – September 2016

Unit 25 has been re-named as Unit CC. We have had to do this to ensure that our internal systems can identify it as a computer-based tested unit. Centres will need to enter CC’ instead of ‘25’ when making entries on Interchange.

Summary of updates – August 2016

We have added the OCR Level 3 Cambridge Technical Extended Diploma in IT (1080 guided learning hours) qualification. There are two pathways.

The structure is described in full in section 4.

This qualification includes a unit where the learner is required to carry out key tasks that require them to use their learning from other units (Unit 24 for the Extended Diploma).

There are three new units and one of these is examined.

The table below is to help you quickly identify which units have been added.

<table>
<thead>
<tr>
<th>Unit</th>
<th>Unit title</th>
<th>For Extended Diploma</th>
<th>Assessment method</th>
</tr>
</thead>
<tbody>
<tr>
<td>23</td>
<td>Cognitive computing</td>
<td>Added</td>
<td>Internally assessed</td>
</tr>
<tr>
<td>24</td>
<td>Enterprise computing</td>
<td>Added</td>
<td>Internally assessed</td>
</tr>
<tr>
<td>25</td>
<td>Cloud technology</td>
<td>Added</td>
<td>Externally assessed</td>
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Key updates to the handbook

<table>
<thead>
<tr>
<th>Section</th>
<th>Title of section</th>
<th>Change</th>
</tr>
</thead>
</table>
| 1       | Qualification overview | Now includes:  
|         |                   | • Size and purpose at a glance  
|         |                   | • Qualification at a glance                  |
| 2       | Qualification size | Information about Total Qualification Time (TQT)
|         | How are these qualifications assessed? | Updated information |
|         | Funding            | Updated information and links                  |
| 3       | MAPS (Managed Assessment Portfolio System) | Removed |
| 4       | How these qualifications are structured | Added 1080 structure |
| 5       | Involving employers in teaching, learning and assessment | Updated information |
|         | Prior knowledge and experience | Updated information |
| 6       | Synoptic assessment | Updated information |
| 8       | Reporting suspected malpractice | Added |
About this handbook

The information we’ve provided in this handbook is correct at the time we produced it. Occasionally we may update it so please check the qualification webpages for the most up-to-date information.

Staff involved in delivering these qualifications must have access to and understand the requirements in this handbook.

You should read this document along with the Admin guide: Cambridge Technicals which contains information about the administration of these qualifications.

About us

OCR is a leading UK awarding body we’re part of the Cambridge Assessment Group, a department of the University of Cambridge.

We are a not-for-profit organisation so success is measured through the impact and reach of our activities and the scale of our contribution to helping people realise their aspirations.

We work in partnership with teachers, employers, high education and government to develop general and vocational qualifications that will equip students of all abilities, with the knowledge and skills they need to reach their full potential.

Thank you

We’ve worked with centres, employers and higher education institutions to design these qualifications.

Thank you to everyone who provided support and feedback as we developed the new Cambridge Technicals in IT. Particular thanks go to those of you who helped us shape these qualifications by so generously giving your own time to share your advice and experiences.
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1 Qualifications overview

Size and purpose at a glance

This suite is made up of six qualifications and they share some common units.

Units 1, 3, 4 and Unit CC (formerly Unit 25) are assessed by exam and marked by us. The remaining units are internally assessed by your centre staff and moderated by OCR.

Cambridge Technical Certificate in IT

180 GLH equivalent to one AS level in terms of size

- Unit 1 and 2 (90 GLH each) are mandatory
- Both units are externally examined

It will provide learners with the opportunity through applied learning to develop core principles and specialist knowledge and understanding required in the IT sector.

Cambridge Technical Extended Certificate in IT

360 GLH equivalent to one A level in terms of size

- 2 x 90 and 3 x 60 GLH units
- Three externally examined units and a choice of two further units which are centre-assessed and moderated by us.

It will provide learners with the opportunity through applied learning to develop the core specialist knowledge, skills and understanding required in the IT sector.

Cambridge Technical Introductory Diploma in IT

360 GLH equivalent to one A level in terms of size

- 2 x 90 and 3 x 60 GLH units
- At least two externally examined units and a choice of three further units which are either examined or centre-assessed and moderated by us.
- A specialist pathway must be followed. There are four pathways to choose from.

Learners will be able to develop the core knowledge, skills and understanding the IT sector required in the IT sector, and develop further skills by completing a range of units through a choice of these specialist pathways:

- IT Infrastructure Technician
- Emerging Digital Technology Practitioner
- Application Developer
- Data Analyst
Cambridge Technical Foundation Diploma in IT

540 GLH equivalent to one and a half A levels in terms of size

- 2 x 90 and 6 x 60 GLH units
- At least two externally examined units and a choice of six further units which are either examined or centre-assessed and moderated by us, which will make up a specialist endorsed pathway.

Learners will be able to develop the core knowledge, skills and understanding required by the IT sector, and develop further skills by completing a range of units through a choice of these specialist pathways:

- IT Infrastructure Technician
- Emerging Digital Technology Practitioner
- Application Developer
- Data Analyst.

Cambridge Technical Diploma in IT

720 GLH equivalent to two A levels in terms of size

- 2 x 90 and 9 x 60 GLH units
- Three externally examined units and a choice of eight further units, centre-assessed and moderated by us, which will make up a specialist endorsed pathway.

Learners will be able to develop the core knowledge, skills and understanding required by the IT sector, and develop further skills by completing a range of units through a choice of these specialist pathways:

- IT Infrastructure Technician
- Emerging Digital Technology Practitioner
- Application Developer
- Data Analyst.

Cambridge Technical Extended Diploma in IT

1080 GLH equivalent to three A levels in terms of size

- 3 x 90 and a mixture of a number of 60 GLH units and a 30 GLH unit.
- Four externally examined units and a choice of thirteen further units, centre-assessed and moderated by us, which will make up a specialist endorsed pathway.

Learners will be able to develop the core knowledge, skills and understanding required by the IT sector, and develop further skills by completing a range of units through a choice of these specialist pathways:

- Digital Technician
- Application Data Technician.

You’ll find the units and supporting documents for these qualifications on our website.
OCR Level 3 Cambridge Technical Introductory Diploma in IT at a glance

<table>
<thead>
<tr>
<th>Ofqual regulation number</th>
<th>OCR Entry code</th>
<th>First registration date</th>
<th>Approved age range</th>
<th>Guided Learning Hours (GLH)</th>
<th>UCAS points</th>
<th>Total Qualification Time (TQT)</th>
<th>Performance table points</th>
<th>Exam sessions each year</th>
<th>Eligible for funding</th>
<th>Entry requirements</th>
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<tr>
<td>601/7099/2</td>
<td>05840</td>
<td>01/09/2016</td>
<td>16–18, 19+</td>
<td>360</td>
<td>You’ll find further information on the UCAS website.</td>
<td>460</td>
<td>You'll find information on performance tables on the DfE website.</td>
<td>January and June</td>
<td>It's designed to meet the funding requirements of a 16–19 study programme.</td>
<td>There are no formal entry requirements for this qualification. However, it would be advantageous if learners have studied similar unit content at Level 2. It is recommended that learners have, or are working towards, a grade 4/grade C or above in maths and English GCSEs.</td>
</tr>
</tbody>
</table>

**This qualification has been designed**

- for learners who are on a 16–19 study programme
- to meet the Department for Education’s characteristics for a Tech Level qualification.

**This qualification is suitable for learners**

- studying to prepare for employment in the IT sector
- who want to progress into IT-related apprenticeships
- who want to gain a level 3 qualification to support further study in Further Education (FE) or to progress to Higher Education (HE) in IT
- studying for career development and who are already in employment.

**Qualification structure**

Learners must achieve a total of 5 units consisting of 2 mandatory examined units and 3 further units. The choice of units will depend on the specialist pathway selected.

**Assessment method/model**

Units 1 and 2 are assessed by exam and marked by us. Your centre staff will internally assess all the other units and we will moderate them.

**Grading**

The units are graded Pass, Merit and Distinction. The qualification is graded P, M, D, D*.

**Examination resits**

Learners can resit an examined unit once before they complete the qualification.

**Repeat submission of learner's work**

If you and the learner feel they haven’t performed at their best during the assessment, the learner can, at your discretion, improve their work and resubmit it to you for assessment. You must follow our requirements on authenticity and feedback in section 8.

**Employer engagement**

It is a requirement that employers are engaged in the delivery of this qualification. Further information can be found in the individual units (where relevant) and in Section 5.
Statement of purpose

Who is the OCR Level 3 Cambridge Technical Introductory Diploma in IT for?

This qualification is for learners 16 years old or over who prefer to study IT in a context that allows them to learn and be assessed in ways that are practical and relevant to the IT sector.

This qualification is not just about being able to use computers. Employers have told us that they need people who are able to help them develop their systems or the systems for their customers, use IT as a tool to analyse data and develop applications. Therefore, this qualification is designed to give learners a range of specialist knowledge and transferable skills in the context of applied IT, providing them with the opportunity to enter an apprenticeship, move directly into employment, or progress to a related Higher Education (HE) course.

Learners could progress onto a Level 4 apprenticeship such as Network Engineer or Software Developer or into employment in the IT sector in areas such as technical support, digital technologies, application development or data analysis.

The qualification has been developed to be taken as part of a wider programme of study incorporating a variety of Level 3 qualifications such as the vocational Cambridge Technicals in Business and/or A levels in Computing, English and Mathematics.

There are no formal entry requirements for this qualification or any specific prior learning requirements, although a good level of literacy and numeracy is expected. We recommend that an initial assessment should take place to ensure the learner is capable of reaching the required standards.

What does this qualification cover?

Learners will take five units, made up of three mandatory and two optional units. They will choose to study one of four specialist pathways depending on the career they wish to pursue.

All learners will study the following two mandatory units; Fundamentals of IT and Global information. These units provide learners with an insight into the IT sector, as they investigate the pace of technological change, IT infrastructure, and the flow of information on a global scale, as well as the important legal and security considerations.

In addition, learners are required to complete three further units, one of which must be the designated mandatory unit for their chosen pathway, thereby ensuring that they are specialising in a specific area as part of their study programme. They will be firmly en route to achieving a qualification that is relevant to the job role they wish to pursue as well as equipping them with relevant employability skills. The remaining optional units chosen will support and enhance the skills that learners are developing in a particular pathway, thus enabling them to gain a deeper appreciation of a specific industry, occupation or occupational group.

The four pathways are:

- IT Infrastructure Technician
- Emerging Digital Technology Practitioner
• Application Developer
• Data Analyst.

**IT Infrastructure Technician pathway**

Typical job roles within this pathway include; IT Technical Support, Database Administrator, Field Technician or Network Technician.

Learners will take the designated mandatory unit for this pathway - *Computer networks*. This unit will give learners the practical ability to plan, implement and maintain computer networks building the key skills, knowledge and understanding relevant to job roles in this field.

Learners will then take two optional units. The optional units to choose from include: *Cyber security, Project management, Product development, Systems analysis and design, Mobile technology, Developing a Smarter Planet, Internet of Everything, Computer systems – hardware, Computer systems – software and IT technical support*. The optional units will draw on the knowledge acquired from the mandatory units and will further enhance learners’ knowledge, skills and understanding with respect to the selection of hardware and software to meet the needs of clients. Learners will be able to build, upgrade or develop computer systems and networks, taking into consideration the requirements of the stakeholders.

**Emerging Digital Technology Practitioner pathway**

Typical job roles within this pathway include; Junior Digital Content Developer, 3D Graphics Technician or Virtual Reality Software Technician.

Learners will take the designated mandatory unit for this pathway - *Virtual and augmented reality*. Learners will research and design both a Virtual and Augmented Reality resource and suggest future applications for Virtual and Augmented Reality.

Learners will then take two optional units. The optional units to choose from include: *Cyber security, Project management, Product development, Systems analysis and design, Mobile technology, Social media and digital marketing, Developing a Smarter Planet, Internet of Everything, Computer systems – hardware, Computer systems – software and Big Data analytics*. The optional units will draw on the knowledge acquired from the mandatory units and will further enhance learners’ knowledge, skills and understanding with respect to the use and development of virtual and augmented reality or emerging technologies for a variety of contexts including mobile technology and digital marketing.

**Application Developer pathway**

Typical job roles within this pathway include; Junior Web Application Developer, Junior Application Developer or Junior Software Analyst.

Learners will take the designated mandatory unit for this pathway - *Application design*. Learners will explore application design and develop a prototype to meet a user requirement.

Learners will then take two optional units. The optional units to choose from include: *Cyber security, Project management, Product development, Mobile technology, Social media and digital marketing, Software engineering for business, Games design and prototyping, Internet of Everything, Web design and prototyping and Big data analytics*. The optional
Data Analyst pathway

Typical job roles within this pathway include; Junior Data Analyst, Junior Data Quality Analyst or Junior Big Data Architect.

Learners will take the designated mandatory unit for this pathway - *Data analysis and design*. Learners will acquire the skills and knowledge required to use data analysis techniques and develop data design solutions to meet specific business requirements.

Learners will then take two optional units. The optional units to choose from include: *Cyber security*, *Project management*, *Product development*, *Business computing*, *Systems analysis and design*, *Social media and digital marketing*, *Software engineering for business*, *Internet of Everything* and *Big Data analytics*. The optional units will draw on the knowledge acquired from the mandatory units and will further enhance learners’ knowledge, skills and understanding with respect to the collection and analysis of data for business purposes.

Whichever pathway a learner follows, they must have opportunities to find out from employers how the skills and knowledge they acquire are used in the working environment. As a centre you will decide how this will happen. You might ask an employer from the IT sector to come and to talk to the class about how the skills they are learning are used in the sector, or you can arrange for learners to have work experience in an IT-based organisation.

Is this qualification right for my learners?

This qualification is part of a suite of Cambridge Technicals in IT at Levels 2 and 3. Normally, a learner would choose one of the OCR Level 3 Cambridge Technicals in IT because they have successfully gained Level 2 qualifications in a similar or related subject, but there are no formal entry or prior learning requirements for this qualification. A learner would take one of the Level 3 Cambridge Technicals in IT if they wish to progress directly into employment at a higher level than with the level 2 qualifications.

This is one of six qualifications available in the Level 3 Cambridge Technicals in IT suite:

- OCR Level 3 Cambridge Technical Certificate in IT (180 GLH)
- OCR Level 3 Cambridge Technical Extended Certificate in IT (360 GLH)
- OCR Level 3 Cambridge Technical Introductory Diploma in IT (with specialist pathways) (360 GLH)
- OCR Level 3 Cambridge Technical Foundation Diploma in IT (with specialist pathways) (540 GLH)
- OCR Level 3 Cambridge Technical Diploma in IT (with specialist pathways) (720 GLH)
- OCR Level 3 Cambridge Technical Extended Diploma in IT (with specialist pathways) (1080 GLH)

The Introductory Diploma takes 360 guided learning hours (GLH) to deliver, which is a similar size to one A level. This provides learners with the opportunity to acquire skills to enable them to work in an IT environment and specialise in a key area in the IT sector. It also provides learners with the flexibility to achieve other qualifications, whether vocational
or academic, in preparation for employment or further study in this sector via apprenticeships or higher education.
# OCR Level 3 Cambridge Technical Foundation Diploma in IT at a glance

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<thead>
<tr>
<th>Ofqual regulation number</th>
<th>OCR Entry code</th>
<th>05841</th>
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<tr>
<td>First registration date</td>
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<td>16–18, 19+</td>
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<tr>
<td>Guided Learning Hours (GLH)</td>
<td>UCAS points</td>
<td>You’ll find further information on the <a href="http://www.ucas.co.uk">UCAS website</a>.</td>
</tr>
<tr>
<td>Total Qualification Time (TQT)</td>
<td>Performance table points</td>
<td>You'll find information on performance tables on the <a href="http://www.dfe.gov.uk">DfE website</a>.</td>
</tr>
<tr>
<td>Exam sessions each year</td>
<td>Eligible for funding</td>
<td>It’s designed to meet the funding requirements of a 16–19 study programme.</td>
</tr>
</tbody>
</table>

| Entry requirements | | There are no formal entry requirements for this qualification. However it would be advantageous if learners have studied similar unit content at Level 2. It is recommended that learners have, or are working towards, a grade 4/grade C or above in maths and English GCSEs. |
| This qualification has been designed | | • for learners who are on a 16–19 study programme • to meet the Department for Education’s characteristics for a Tech Level qualification. |
| This qualification is suitable for learners | | • studying to prepare for employment in the IT sector • who want to progress into IT-related apprenticeships • who want to gain a level 3 qualification to support further study in Further Education (FE) or to progress to Higher Education (HE) in IT • studying for career development and who are already in employment. |
| Qualification structure | Learners must achieve a total of 8 units consisting of 2 mandatory examined units and 6 further units. The choice of units will depend on the specialist pathway selected. |
| Assessment method/model | Units 1, 2 and 3 are assessed by exam and marked by us. Your centre staff will internally assess all the other units and we will moderate them. |
| Grading | The units are graded Pass, Merit and Distinction. The qualification is graded PP, PM, MM, MD, DD, DD*, D*D*. |
| Examination resits | Learners can resit an examined unit once before they complete the qualification. |
| Repeat submission of learner's work | If you and the learner feel they haven’t performed at their best during the assessment, the learner can, at your discretion, improve their work and resubmit it to you for assessment. You must follow our requirements on authenticity and feedback in section 8. |
| Employer engagement | It is a requirement that employers are engaged in the delivery of this qualification. Further information can be found in the individual units (where relevant) and in Section 5. |
Statement of purpose

Who is the OCR Level 3 Cambridge Technical Foundation Diploma in IT for?

This qualification is for learners 16 years old or over who prefer to study IT in a context that allows them to learn and be assessed in ways that are practical and relevant to the IT sector.

This qualification is not just about being able to use computers. Employers have told us that they need people who are able to help them develop their systems or the systems for their customers, use IT as a tool to analyse data and develop applications. Therefore, this qualification is designed to give learners a range of specialist knowledge and transferable skills in the context of applied IT, providing them with the opportunity to enter an apprenticeship, move directly into employment, or progress to a related Higher Education (HE) course.

Learners could progress onto a Level 4 apprenticeship such as Network Engineer or Software Developer or into employment in the IT sector in areas such as technical support, digital technologies, application development or data analysis.

This qualification has been developed to be taken as part of a wider programme of study incorporating a variety of Level 3 qualifications such as the vocational Cambridge Technicals in Business and/or A levels in Computing, English and Mathematics.

There are no formal entry requirements for this qualification or any specific prior learning requirements, although a good level of literacy and numeracy is expected. We recommend that an initial assessment should take place to ensure the learner is capable of reaching the required standards.

What does this qualification cover?

Learners will take eight units, made up of three mandatory and five optional units. They will choose to study one of four specialist pathways depending on the career they wish to pursue.

All learners will study the following two mandatory units; Fundamentals of IT and Global Information. These units provide learners with an insight into the IT sector, as they investigate the pace of technological change, IT infrastructure, and the flow of information on a global scale, as well as the important legal and security considerations.

In addition, learners are required to complete six further units, one of which must be the designated mandatory unit for their chosen pathway, thereby ensuring that they are specialising in a specific area as part of their study programme. They will be firmly en route to achieving a qualification that is relevant to the job role they wish to pursue as well as equipping them with relevant employability skills. The remaining optional units chosen will support and enhance the skills that learners are developing in a particular pathway, thus enabling them to gain a deeper appreciation of a specific industry, occupation or occupational group.

The four pathways are:

- IT Infrastructure Technician
Emerging Digital Technology Practitioner
Application Developer
Data Analyst.

IT Infrastructure Technician pathway

Typical job roles within this pathway include; IT Technical Support, Database Administrator, Field Technician or Network Technician.

Learners will take the designated mandatory unit for this pathway - Computer networks. This unit will give learners the practical ability to plan, implement and maintain computer networks building the key skills, knowledge and understanding relevant to job roles in this field.

Learners will then take five optional units. The optional units to choose from include: Cyber security, Project management, Product development, Systems analysis and design, Mobile technology, Developing a Smarter Planet, Internet of Everything, Computer systems – hardware, Computer systems – software and IT technical support. The optional units will draw on the knowledge acquired from the mandatory units and will further enhance learners’ knowledge, skills and understanding with respect to the selection of hardware and software to meet the needs of clients. Learners will be able to build, upgrade or develop computer systems and networks, taking into consideration the requirements of the stakeholders.

Emerging Digital Technology Practitioner pathway

Typical job roles within this pathway include; Junior Digital Content Developer, 3D Graphics Technician or Virtual Reality Software Technician.

Learners will take the designated mandatory unit for this pathway - Virtual and augmented reality. Learners will research and design both a Virtual and Augmented Reality resource and suggest future applications for Virtual and Augmented Reality.

Learners will then take five optional units. The optional units to choose from include: Cyber security, Project management, Product development, Systems analysis and design, Mobile technology, Social media and digital marketing, Developing a Smarter Planet, Internet of Everything, Computer systems – hardware, Computer systems – software and Big Data analytics. The optional units will draw on the knowledge acquired from the mandatory units and will further enhance learners’ knowledge, skills and understanding with respect to the use and development of virtual and augmented reality or emerging technologies for a variety of contexts including mobile technology and digital marketing.

Application Developer pathway

Typical job roles within this pathway include; Junior Web Application Developer, Junior Application Developer or Junior Software Analyst.

Learners will take the designated mandatory unit for this pathway - Application design. Learners will explore application design and develop a prototype to meet a user requirement.

Learners will then take five optional units. The optional units to choose from include: Cyber security, Project management, Product development, Mobile technology, Social media and digital marketing, Software engineering for business, Games design and prototyping.
Internet of Everything, Web design and prototyping and Big data analytics. The optional units will draw on the knowledge acquired from the mandatory units and will further enhance learners' knowledge, skills and understanding with respect to the development of specifications and the designing, building or testing of applications.

Data Analyst pathway

Typical job roles within this pathway include; Junior Data Analyst, Junior Data Quality Analyst or Junior Big Data Architect.

Learners will take the designated mandatory unit for this pathway - Data analysis and design. Learners will acquire the skills and knowledge required to use data analysis techniques and develop data design solutions to meet specific business requirements.

Learners will then take five optional units. The optional units to choose from include: Cyber security, Project management, Product development, Business computing, Systems analysis and design, Social media and digital marketing, Software engineering for business, Internet of Everything and Big Data analytics. The optional units will draw on the knowledge acquired from the mandatory units and will further enhance learners’ knowledge, skills and understanding with respect to the collection and analysis of data for business purposes.

Whichever pathway a learner follows, they must have opportunities to find out from employers how the skills and knowledge they acquire are used in the working environment. As a centre you will decide how this will happen. You might ask an employer from the IT sector to come and to talk to the class about how the skills they are learning are used in the sector, or you can arrange for learners to have work experience in an IT-based organisation.

Is this qualification right for my learners?

This qualification is part of a suite of Cambridge Technicals in IT at Levels 2 and 3. Normally, a learner would choose one of the OCR Level 3 Cambridge Technicals in IT because they have successfully gained Level 2 qualifications in a similar or related subject, but there are no formal entry or prior learning requirements for this qualification. A learner would take one of the Level 3 Cambridge Technicals in IT if they wish to progress directly into employment at a higher level than with the level 2 qualifications.

This is one of six qualifications available in the Level 3 Cambridge Technicals in IT suite:

- OCR Level 3 Cambridge Technical Certificate in IT (180 GLH)
- OCR Level 3 Cambridge Technical Extended Certificate in IT (360 GLH)
- OCR Level 3 Cambridge Technical Introductory Diploma in IT (with specialist pathways) (360 GLH)
- OCR Level 3 Cambridge Technical Foundation Diploma in IT (with specialist pathways) (540 GLH)
- OCR Level 3 Cambridge Technical Diploma in IT (with specialist pathways) (720 GLH)
- OCR Level 3 Cambridge Technical Extended Diploma in IT (with specialist pathways) (1080 GLH)

The Foundation Diploma takes 540 GLH to deliver, which is a similar size to one and a half A levels. This enables learners to strengthen their knowledge, skills and understanding within their chosen pathway, providing them with greater access to specialised roles in the IT sector. It also provides learners with the flexibility to achieve other qualifications,
whether vocational or academic, in preparation for employment or further study in this sector via apprenticeships or higher education.
### OCR Level 3 Cambridge Technical Diploma in IT at a glance

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<th>05842</th>
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<td>01/09/2016</td>
<td><strong>Approved age range</strong></td>
<td>16–18, 19+</td>
</tr>
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<td><strong>Guided Learning Hours (GLH)</strong></td>
<td>720</td>
<td><strong>UCAS points</strong></td>
<td>You’ll find further information on the UCAS website.</td>
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<tr>
<td><strong>Total Qualification Time (TQT)</strong></td>
<td>964</td>
<td><strong>Performance table points</strong></td>
<td>You'll find information on performance tables on the DfE website.</td>
</tr>
<tr>
<td><strong>Exam sessions each year</strong></td>
<td>January and June</td>
<td><strong>Eligible for funding</strong></td>
<td>It’s designed to meet the funding requirements of a 16–19 study programme.</td>
</tr>
</tbody>
</table>

#### Entry requirements

There are no formal entry requirements for this qualification. However, it would be advantageous if learners have studied similar unit content at Level 2. It is recommended that learners have, or are working towards, a grade 4/grade C or above in maths and English GCSEs.

#### This qualification has been designed

- for learners who are on a 16–19 study programme
- to meet the Department for Education’s characteristics for a Tech Level qualification.

#### This qualification is suitable for learners

- studying to prepare for employment in the IT sector
- who want to progress into IT-related apprenticeships
- who want to gain a level 3 qualification to support further study in Further Education (FE) or to progress to Higher Education (HE) in IT
- studying for career development and who are already in employment.

#### Qualification structure

Learners must achieve a total of 11 units consisting of 3 mandatory examined units and 8 further units. The choice of units will depend on the specialist pathway selected.

#### Assessment method/model

Units 1, 2 and 3 are assessed by exam and marked by us. Your centre staff will internally assess all the other units and we will moderate them.

#### Grading

The units are graded Pass, Merit and Distinction. The qualification is graded PP, PM, MM, MD, DD, DD*, D*D*.

#### Examination resits

Learners can resit an examined unit once before they complete the qualification.

#### Repeat submission of learner’s work

If you and the learner feel they haven’t performed at their best during the assessment, the learner can, at your discretion, improve their work and resubmit it to you for assessment. You must follow our requirements on authenticity and feedback in section 8.

#### Employer engagement

It is a requirement that employers are engaged in the delivery of this qualification. Further information can be found in the individual units (where relevant) and in Section 5.
Statement of purpose

Who is the OCR Level 3 Cambridge Technical Diploma in IT for?

This qualification is for learners 16 years old or over who prefer to study IT in a context that allows them to learn and be assessed in ways that are practical and relevant to the IT sector.

This qualification is not just about being able to use computers. Employers have told us that they need people who are able to help them develop their systems or the systems for their customers, use IT as a tool to analyse data and develop applications. Therefore, this qualification is designed to give learners a range of specialist knowledge and transferable skills in the context of applied IT, providing them with the opportunity to enter an apprenticeship, move directly into employment, or progress to a related Higher Education (HE) course.

Learners could progress onto a Level 4 apprenticeship such as Network Engineer or Software Developer or into employment in the IT sector in areas such as technical support, digital technologies, application development or data analysis.

This qualification has been designed to be the substantive part of a study programme. It can be complemented by other Level 3 qualifications such as the vocational Cambridge Technicals in Business and/or A levels in Computing, English and Mathematics.

There are no formal entry requirements for this qualification or any specific prior learning requirements, although a good level of literacy and numeracy is expected. We recommend that an initial assessment should take place to ensure the learner is capable of reaching the required standards.

What does this qualification cover?

Learners will take 11 units, made up of four mandatory and seven optional units. They will choose to study one of four specialist pathways depending on the career they wish to pursue.

All learners will study the following three mandatory units; Fundamentals of IT, Global information and Cyber security. The first two units provide learners with an insight into the IT sector, as they investigate the pace of technological change, IT infrastructure, and the flow of information on a global scale, as well as the important legal and security considerations. Cyber security reflects an important development in the sector around information security, and requires learners to consider how data should be protected and how the IT sector should respond to emerging threats such as cyber terrorism.

In addition, learners are required to complete eight further units, one of which must be the designated mandatory unit for their chosen pathway, thereby ensuring that they are specialising in a specific area as part of their study programme. They will be firmly en route to achieving a qualification that is relevant to the job role they wish to pursue as well as equipping them with relevant employability skills. The remaining optional units chosen will support and enhance the skills that learners are developing in a particular pathway, thus enabling them to gain a deeper appreciation of a specific industry, occupation or occupational group.
The four pathways are:

- IT Infrastructure Technician
- Emerging Digital Technology Practitioner
- Application Developer
- Data Analyst.

**IT Infrastructure Technician pathway**

Typical job roles within this pathway include; IT Technical Support, Database Administrator, Field Technician, Network Technician, Infrastructure Technician, Network Planner or Cloud Technician.

Learners will take the designated mandatory unit for this pathway - *Computer networks*. This unit will give learners the practical ability to plan, implement and maintain computer networks building the key skills, knowledge and understanding relevant to job roles in this field.

Learners will then take seven optional units. The optional units to choose from include: *Cyber security*, *Project management*, *Product development*, *Systems analysis and design*, *Mobile technology*, *Developing a Smarter Planet*, *Internet of Everything*, *Computer systems – hardware*, *Computer systems – software* and *IT technical support*. The optional units will draw on the knowledge acquired from the mandatory units and will further enhance learners’ knowledge, skills and understanding with respect to the selection of hardware and software to meet the needs of clients. Learners will be able to build, upgrade or develop computer systems and networks, taking into consideration the requirements of the stakeholders, designing and developing systems that are safe and secure. They will be able to lead teams to complete technical infrastructure products, investigate cyber security attacks, and implement preventative solutions to reduce risks.

**Emerging Digital Technology Practitioner pathway**

Typical job roles within this pathway include; Junior Digital Content Developer, 3D Graphics Technician, Virtual Reality Software Technician, Software Developer, Digital Identity Planners or Digital Content Developer.

Learners will take the designated mandatory unit for this pathway - *Virtual and augmented reality*. Learners will research and design both a Virtual and Augmented Reality resource and suggest future applications for Virtual and Augmented Reality.

Learners will then take seven optional units. The optional units to choose from include: *Cyber security*, *Project management*, *Product development*, *Systems analysis and design*, *Mobile technology*, *Social media and digital marketing*, *Developing a Smarter Planet*, *Internet of Everything*, *Computer systems – hardware*, *Computer systems – software* and *Big Data analytics*. The optional units will draw on the knowledge acquired from the mandatory units and will further enhance learners’ knowledge, skills and understanding with respect to the use and development of virtual and augmented reality or emerging technologies for a variety of contexts including mobile technology and digital marketing and the visualisation of Big data analytics. Learners will have a good understanding of the issues surrounding cyber security and will be able to incorporate solutions into their designs to minimise risk.
**Application Developer pathway**

Typical job roles within this pathway include: Web Application Developer, Software Engineer, Mobile Application Developer, Application Developer or Software Analyst.

Learners will take the designated mandatory unit for this pathway - *Application design*. Learners will explore application design and develop a prototype to meet a user requirement.

Learners will then take seven optional units. The optional units to choose from include: *Cyber security, Project management, Product development, Mobile technology, Social media and digital marketing, Software engineering for business, Games design and prototyping, Internet of Everything, Web design and prototyping and Big data analytics*. The optional units will draw on the knowledge acquired from the mandatory units and will further enhance learners’ knowledge, skills and understanding with respect to the development of specifications and the designing, building, testing and implementation of applications. They will have a good understanding of the issues surrounding cyber security and will be able to incorporate solutions into their designs to minimise risk.

**Data Analyst pathway**

Typical job roles within this pathway include; Data Analyst, Data Quality Analyst, Statistical Data Analyst, Big Data Architect, Digital Data Analyst or Customer Insight Analyst.

Learners will take the designated mandatory unit for this pathway - *Data analysis and design*. Learners will acquire the skills and knowledge required to use data analysis techniques and develop data design solutions to meet specific business requirements.

Learners will then take seven optional units. The optional units to choose from include: *Cyber security, Project management, Product development, Business computing, Systems analysis and design, Social media and digital marketing, Software engineering for business, Internet of Everything and Big data analytics*. The optional units will draw on the knowledge acquired from the mandatory units and will further enhance learners’ knowledge, skills and understanding with respect to the collection and analysis of data for business purposes. It will enable learners to evaluate the risks of data, using statistical information to determine whether a business could accidently damage its business potential. Learners will have a good understanding of the issues surrounding cyber security and be able to implement strategies that minimise risks to the data they have access to.

Whichever pathway a learner follows, they must have opportunities to find out directly from employers how the skills and knowledge they acquire are used in the working environment. As a centre you will decide how this will happen. You might ask an employer from the IT sector to come and to talk to the class about how the skills they are learning are used in the sector, or you can arrange for learners to have work experience in an IT-based organisation.

**Is this qualification right for my learners?**

This qualification is part of a suite of Cambridge Technicals in IT at Levels 2 and 3. Normally, a learner would choose one of the OCR Level 3 Cambridge Technicals in IT because they have successfully gained Level 2 qualifications in a similar or related subject, but there are no formal entry or prior learning requirements for this qualification.
A learner would take one of the Level 3 Cambridge Technicals in IT if they wish to progress directly into employment at a higher level than with the level 2 qualifications.

This is one of six qualifications available in the Level 3 Cambridge Technicals in IT suite:

- OCR Level 3 Cambridge Technical Certificate in IT (180 GLH)
- OCR Level 3 Cambridge Technical Extended Certificate in IT (360 GLH)
- OCR Level 3 Cambridge Technical Introductory Diploma in IT (with specialist pathways) (360 GLH)
- OCR Level 3 Cambridge Technical Foundation Diploma in IT (with specialist pathways) (540 GLH)
- OCR Level 3 Cambridge Technical Diploma in IT (with specialist pathways) (720 GLH)
- OCR Level 3 Cambridge Technical Extended Diploma in IT (with specialist pathways) (1080 GLH)

The Diploma takes 720 GLH to deliver, which is a similar size to two A levels. The Diploma is the largest of the qualifications, and will enable learners to increase the breadth and depth of their knowledge, skills and understanding within their chosen pathway; this will provide them with greater access to specialised roles within the IT sector. It also provides learners with the flexibility to achieve other qualifications, whether vocational or academic, in preparation for employment or further study in this sector via apprenticeships or higher education.
### OCR Level 3 Cambridge Technical Extended Diploma in IT at a glance

<table>
<thead>
<tr>
<th><strong>Ofqual regulation number</strong></th>
<th>603/0309/8</th>
<th><strong>OCR Entry code</strong></th>
<th>05877</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First registration date</strong></td>
<td>01/09/2016</td>
<td><strong>Approved age range</strong></td>
<td>16–18, 19+</td>
</tr>
<tr>
<td><strong>Guided Learning Hours (GLH)</strong></td>
<td>1080</td>
<td><strong>UCAS points</strong></td>
<td>You’ll find further information on the <a href="#">UCAS website</a>.</td>
</tr>
<tr>
<td><strong>Total Qualification Time (TQT)</strong></td>
<td>1484</td>
<td><strong>Performance table points</strong></td>
<td>You’ll find information on performance tables on the <a href="#">DfE website</a>.</td>
</tr>
<tr>
<td><strong>Exam sessions each year</strong></td>
<td>January and June* (*First session for Unit CC is June 2017)</td>
<td><strong>Eligible for funding</strong></td>
<td>It’s designed to meet the funding requirements of a 16–19 study programme.</td>
</tr>
</tbody>
</table>

#### Entry requirements
There are no formal entry requirements for this qualification. However it would be advantageous if learners have studied similar unit content at Level 2. It is recommended that learners have, or are working towards, a grade 4/grade C or above in maths and English GCSEs.

#### This qualification has been designed
- for learners who are on a 16–19 study programme
- to meet the Department for Education’s characteristics for a Tech Level qualification.

#### This qualification is suitable for learners
- studying to prepare for employment in the IT sector
- who want to progress into IT-related apprenticeships
- who want to gain a level 3 qualification to support further study in Further Education (FE) or to progress to Higher Education (HE) in IT
- studying for career development and who are already in employment.

#### Qualification structure
Learners must achieve a total of 17 units consisting of four mandatory examined units and 13 further units. The choice of units will depend on the specialist pathway selected.

#### Assessment method/model
Units 1, 2, 3 and Unit CC are assessed by exam and marked by us. Your centre staff will internally assess all the other units and we will moderate them.

#### Grading
The units are graded Pass, Merit and Distinction. The qualification is graded PPP, MPP, MMP, MMM, DMM, DDM, DDD, D*D, D*D*D, D*D*D*

#### Examination resits
Learners can resit an examined unit once before they complete the qualification.

#### Repeat submission of learner’s work
If you and the learner feel they haven’t performed at their best during the assessment, the learner can, at your discretion, improve their work and resubmit it to you for assessment. You must follow our requirements on authenticity and feedback in...
### Employer engagement

It is a requirement that employers are engaged in the delivery of this qualification. Further information can be found in the individual units (where relevant) and in Section 5.
Statement of purpose

Who is the OCR Level 3 Cambridge Technical Extended Diploma in IT for?

This qualification is intended as a Tech Level and is designed for learners who are 16 - 19 years old. It is equivalent in size to 3 A levels and is intended to be their full study programme.

The qualification allows learners to study IT in a context that enables them to learn and be assessed in ways that are practical and relevant to the IT sector. Employers have told us that they need people who are able to help them develop their systems or the systems for their customers, to use IT to strategically view the IT landscape and to exploit new technologies to gain business advantage. They have identified that future skills gaps need to be filled for new and emerging technologies. This qualification, therefore, is specifically designed to give learners comprehensive knowledge, not available in the smaller qualification sizes, which will allow them to specialise with breadth and depth into more specialist and cutting edge job roles across the sectors.

What does this qualification cover?

Learners will choose to study units from one of two specialist pathways depending on the career they wish to pursue. The two pathways are Digital Technician and Application Data Practitioner.

Learners will take 17 units (seven mandatory and ten optional units). There are five mandatory units that are in both pathways; Fundamentals of IT, Global information, Cyber security, Cloud technology and Enterprise computing. The first two units provide learners with an insight into the IT sector, as they investigate the pace of technological change, IT infrastructure, and the flow of information on a global scale, as well as the important legal and security considerations. Cyber security reflects an important development in the sector around information security, and requires learners to consider how data should be protected and how the IT sector should respond to emerging threats such as cyber terrorism. Cloud technology develops this knowledge into the global usage, application and practice with Cloud technology. Enterprise computing will be the synoptic unit (it is recommended that this unit is completed at the end of the learning programme) as it will allow learners to evaluate global organisations and make recommendations for how the application of Enterprise Computing can meet changing business needs.

In addition, learners are required to complete 12 further units, two of which must be the designated mandatory units for their chosen pathway. In the Digital Technician pathway the two additional mandatory units are Computer networks and Virtual and augmented reality. In the Application Data Practitioner Pathway the two additional mandatory units are Application design and Data analysis and design.

From the remaining ten optional units there is a unit specific to this qualification – Cognitive computing. This unit will prepare learners for job roles which involve creative, smart thinking and learning systems that will second guess humans in thinking, research and complex analysis tasks to suggest credible and operational options.

There are no formal entry requirements or requirement for any specific prior learning, although learners will need a good level of literacy and numeracy skills and an excitement for technology.
What could this qualification lead to?

The **Digital Technician pathway** will lead to specific job roles which include: IT Technical support, Database Administrator, Field Technician, Network Technician, Infrastructure Technician, Network Planner, Network Engineer, Junior Digital Content Developer, 3D Graphics Technician, Virtual Reality Software Technician, Software Developer, Digital Identity Planners or Digital Content Developer.

The **Application Data Practitioner pathway** will lead to specific job roles which include: Web Application Developer, Software Engineer, Mobile Application Developer, Application Developer, Software Analyst, Data Analyst, Data Quality Analyst, Statistical Data Analyst, Big Data Architect, Digital Data Analyst or Customer Insight Analyst, Software Developer, Digital Marketer, Software Tester, Data Analyst, Cyber Intrusion Analyst, IT Technical Sales and Digital Service Operator.

The introduction of new units which are available in both pathways of the Extended Diploma, such as *Cloud technology, Enterprise computing* and *Cognitive computing*, allow for additional job roles which are not available in the smaller qualification sizes. These include Cloud Technician, Cyber Intrusion Analyst, Unified Communications Trouble Shooter, Cyber Security Technologist, Cloud Systems Support Technician for the data centres, Internet Of Things Designer or Planner, Container Developers and Trainee Architects, Cognitive Computing Engineer/Machine Learning Specialist and Unified Communications Technician.

The qualification will enable learners to acquire a range of transferable skills and knowledge which are highly regarded by higher education providers and employers. It has UCAS tariff points and provides a good grounding for progression to university to take one of many relevant degree programmes, for example: Computing and ICT; Computing Science; Software Developments; Software Engineering; ICT and Computer Networks; Business Information Systems. (It is always important for learners to check individual course requirements when applying to university)

The qualification could also provide learners with a head start into apprenticeship programmes (e.g. Network Engineer or Software Developer), or directly into employment, whilst still providing learners with the option of progression into a related Higher Education (HE) course as listed above.

Is this qualification right for my learners?

This qualification is part of a suite of Cambridge Technicals in IT at Levels 2 and 3. Normally, learners would choose one of the OCR Level 3 Cambridge Technicals in IT because they have successfully gained Level 2 qualifications in a similar or related subject, but there are no formal entry or prior learning requirements for this qualification. A learner would take one of the Level 3 Cambridge Technicals in IT if they wish to progress directly into employment at a higher level than with the level 2 qualifications.

This is one of six qualifications available in the Level 3 Cambridge Technicals in IT suite:

- OCR Level 3 Cambridge Technical Certificate in IT (equivalent in size to one AS level)
- OCR Level 3 Cambridge Technical Extended Certificate in IT (equivalent in size to one A level)
- OCR Level 3 Cambridge Technical Introductory Diploma in IT (with specialist pathways) (equivalent in size to one A level)
• OCR Level 3 Cambridge Technical Foundation Diploma in IT (with specialist pathways) (equivalent in size to one and a half A levels)
• OCR Level 3 Cambridge Technical Diploma in IT (with specialist pathways) (equivalent in size to two A levels)
• OCR Level 3 Cambridge Technical Extended Diploma in IT (with specialist pathways) (equivalent in size to three A levels)

This qualification is a similar size to three A levels and it’s the largest of the qualifications in this suite. As learners will be taking more units it will enable them to increase the breadth and depth of their knowledge, skills and understanding in their chosen pathway. It will be the main qualification in their study programme although they could achieve other qualifications to complement this one, whether vocational or academic, in preparation for employment or further study in the IT sector via apprenticeships or higher education.

The Introductory Diploma, Foundation Diploma and Diploma are smaller in size; learners will still follow a specialist pathway but will take fewer units. All will provide learners with the flexibility to achieve other qualifications in their study programme, whether vocational or academic, in preparation for employment, apprenticeship or further study in this sector (via higher education).

The Extended Certificate is similar in size to one A Level but it does not contain specialist pathways; it contains units which provide the breadth of knowledge, understanding and skills to prepare learners for further study in this sector. The Certificate is the smallest qualification and would support the main subjects in a learner's study programme to prepare them for further study.
## About these qualifications

### Introduction

This handbook contains what you need to know about the planning, delivery and assessment of these qualifications.

We also ask you to read the *Admin Guide: Cambridge Technicals* where you will find all the information you need for the administration of these qualifications.

### Qualification size

The size of the qualification is described in terms of Guided Learning Hours (GLH) and Total Qualification Time (TQT).

GLH indicates the approximate time (in hours) that the learner will be supervised during any teaching, learning or assessment activities. We have worked with people who are experienced in delivering IT qualifications to determine what content needs to be taught and how long it will take to deliver.

TQT is comprised of two elements: GLH, and an estimate of the number of hours a learner will reasonably spend on any unsupervised learning or assessment activities (including homework) so they can successfully achieve their qualification.

Two units in this IT suite take 90 GLH to deliver, all other units take 60 GLH.

The 5 unit Introductory Diploma needs 360 GLH.

The 8 unit Foundation Diploma needs 540 GLH.

The 11 unit Diploma needs 720 GLH.

The Extended Diploma needs 1080 GLH.

### How does it fit into a 16–19 study programme?

The Introductory Diploma (360 GLH) and Foundation Diploma (540 GLH) are designed for learners who want to specialise in a particular vocational area. The programmes could be taken over one or two academic years.

The Diploma (720 GLH) is designed to be the substantive part of a 16–19 study programme. It can be complemented by other vocational or academic qualifications or non-qualification elements. (By non-qualification elements we mean tutorials, mentoring, work experience, sport, drama, extra-curricular activities, etc.).

The Extended Diploma (1080 GLH) is designed to be a two year study programme. Its size means it’s ideal for learners wanting a full-time course that specialises in the IT sector and who intend to progress to full time employment. It can be complemented by non-qualification elements. (By non-qualification elements we mean tutorials, mentoring, work...
You should make sure you tell learners the title and level of the qualification they’ve been entered for and that Oxford Cambridge and RSA Examinations (OCR) is the awarding body for their chosen qualification.

<table>
<thead>
<tr>
<th><strong>Is there a learner entry requirement?</strong></th>
<th>No, to take these qualifications learners don’t need any specific knowledge or skills related to the qualification. Learners should be aged 16 or over.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Do learners need specific prior learning?</strong></td>
<td>No, but it would be advantageous for learners to have studied similar unit content at Level 2. It is also recommended that learners have, or are working towards, a grade 4/grade C or above in maths and English GCSEs. We recommend you carry out an initial assessment to make sure learners are capable of reaching the required standards of the qualification they intend to work towards.</td>
</tr>
<tr>
<td><strong>How are these qualifications delivered?</strong></td>
<td>You’re free to deliver these qualifications using any mode of delivery that meets the needs of your learners but you do have to involve employers in delivering and/or assessing them. Whichever mode of delivery you decide to use, you must make sure learners have appropriate access to the resources they will need to develop the required skills, understanding and knowledge and to complete the assessments. We recommend you reference teaching and development of subject content and associated skills to real life-situations, using appropriate work-based contacts, delivery personnel who are vocationally experienced, and real-life case studies.</td>
</tr>
<tr>
<td><strong>What are the requirements for employer involvement?</strong></td>
<td>All learners must undertake meaningful activity involving employers during their study. For more information see ‘Involving employers in teaching, learning and assessment’ in section 5.</td>
</tr>
<tr>
<td><strong>What are the subject knowledge requirements for our centre staff?</strong></td>
<td>Tutors must have the relevant level of subject knowledge and skills to deliver these qualifications.</td>
</tr>
<tr>
<td><strong>Are there specific resource requirements for my centre?</strong></td>
<td>Yes, there are specific requirements for some units and we’ve detailed these in the individual units. For example, for Unit 4, Computer networks, learners will need access to a</td>
</tr>
</tbody>
</table>
private network.

**Health and safety**
Please also make sure your learners are provided with appropriate physical resources, such as protective equipment and/or clothing, wherever this is appropriate.

You and your centre must take care and follow all health and safety requirements and quality assurance procedures specific to each practical activity. You must make sure the appropriate health and safety policies are in place for equipment used by learners, even if the equipment isn’t specified in the unit content.

**Assessment**
Your centre must provide appropriate examination facilities for learners that comply with the Joint Council of Qualifications (JCQ) *Instructions for Conducting Examinations.*

<table>
<thead>
<tr>
<th>How are these qualifications assessed?</th>
<th>These qualifications are assessed using a combination of:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• external assessment, which we set and mark</td>
</tr>
<tr>
<td></td>
<td>• internal assessment, where the tutor assesses the learners’ work which we externally moderate it.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>How are these graded?</th>
<th>Every unit achieved will be graded as pass, merit, or distinction.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Learners who don’t achieve a pass in a unit will be unclassified. A learner must get at least a pass for every unit to be awarded the qualification they have entered for.</td>
</tr>
<tr>
<td></td>
<td>Qualifications are graded using a Pass, Merit, Distinction, Distinction* (and Unclassified) structure.</td>
</tr>
<tr>
<td></td>
<td>You’ll find full details about the rules for achieving a qualification and about grading in section 10 ‘How to calculate the qualification grade’.</td>
</tr>
</tbody>
</table>
Availability and funding

These qualifications are regulated by Ofqual for use in England.

These qualifications are designed to meet the funding requirements of a 16–19 study programme and 19–23 entitlement.

Funding arrangements can be subject to change. For the latest details about approval and funding eligibility, we recommend you visit the following websites:

- **Register of Regulated Qualifications** – Ofqual's register of regulated qualifications
- **Department for Education (DfE) Section 96** – for confirmation of the approval of qualifications to be delivered to specific age ranges.
- **Education Funding Agency** for public funding information for learners (0-18) in England
- **Department for Employment and Learning** for public funding in Northern Ireland
- **Qualifications in Wales database** (QiW) for public funding in Wales.
- **Skills Funding Agency** for public funding information for learners (19+) in England

Use the Ofqual Qualification Number (QN) when you’re looking for information on qualification eligibility for public funding.

If you have any queries about funding for these qualifications email us at funding@ocr.org.uk.

Performance tables

We've designed these qualifications to meet the Department for Education (DfE) requirements for qualifications in the Tech Level category of the 16 to 19 performance tables.

You'll find information on performance tables on the [DfE website](https://www.gov.uk/)

The Tech Level is one of the three components of the new Technical Baccalaureate (TechBacc) performance table measure. The TechBacc performance measure will report the number of learners achieving a Tech Level, an approved Level 3 maths qualification and an extended project qualification.

You'll find information on the TechBacc performance measure on the [DfE website](https://www.gov.uk/).
### Are these qualifications recognised in the UCAS tariff tables?

Yes. You’ll find further information on the [UCAS website](https://www.ucas.com). It’s always important for learners to check individual course requirements when applying to university.

### Last entry date

These qualifications will continue to be available for entries and certification until we decide they need to be withdrawn.

If we’re going to withdraw a qualification we’ll set an end date for entries and certification and we’ll tell you what the arrangements are for the last date to enter learners and make claims for certificates.

When we set end dates, you’ll be able to see these on Ofqual’s register of regulated qualifications. If an end date is not specified, it’s because the qualification is still available.
3 Qualification resources, support and useful links

Our aim is to provide you with the information and support you need to deliver these qualifications.

Qualification resources available on our website

Guide to Examinations

This has been produced to help prepare learners for examinations. It focusses on understanding exam structures and formats and the way learners can support their performance in exams.

Delivery guide

Each unit delivery guide contains a range of lesson ideas with associated activities you can use with your learners. We’ve structured the guide by learning outcome so you can see how each activity helps learners cover the specification. The guide also explains key terms and common misconceptions.

Lesson elements

These are task sheets with accompanying teacher instructions. Each lesson element offers you a creative way of encouraging your learners to engage with the topic, with individual and group exercises, research activities and the opportunity to develop English and maths skills.

Resources links

For some of the units there is an e-resource that provides you with links to a range of teaching and learning websites and materials for each unit.

Skills guides

We’ve written skills guides for you and your learners. They can help review or refresh skills in a variety of areas including:

- managing projects
- research
- referencing (good practice in acknowledging the work of other authors and avoiding accusations of plagiarism)
- command verbs
- examinations.

You can find these on our website http://www.ocr.org.uk/i-want-to/skills-guides/.

Project approach to delivery

A project delivery approach will be available for each pathway. These resources will show you how you can set an IT project so that you can deliver the content in a holistic manner.
The project approach is another way to involve employers in the delivery of these qualifications.

Rules of combination calculator

This tool helps you and your learners to make sure that the right number and combination of units is chosen for a selected pathway.

Progress tracker

This tool helps you track your learners’ progress through their chosen units.

Sample assessment materials

We only provide sample assessment materials for the externally assessed units. This is because we set the assessment for these units. Sample assessments show you what the assessment will look like, and you can use them as practice materials. Each year we’ll make the exams from the previous year available as practice papers.

You can download sample assessment materials and, eventually, past papers from our website at www.ocr.org.uk.

Model assignments

We provide model assignments for mandatory internally assessed units. These can be:

- used as they are to assess your learners
- modified to suit your local or regional environment
- used as a guide to help you design your own assignments.

Assignment checking service

You can develop your own assessment for internally assessed units.

We provide an optional assignment checking service for Cambridge Technicals centres. If you use this service we’ll check that the assignment you’ve designed covers the grading criteria in the unit and allows every learner to reach the highest grade if they demonstrate they have the associated level of knowledge, understanding and skills.

You can find more information about this service (including the price) on the CPD Hub.

**Advisory support**

If you are delivering, or intend to deliver, Cambridge Technicals, but would like some additional support, you can take advantage of our Advisory Support services.

Advisory Support covers a variety of topics such as: entry and assessment administration, qualification structure, assessment methods, teaching and learning materials, and delivery ideas.

Support includes downloadable teaching and assessment materials, videos, telephone or WebEx conversation, live on-line training, and face to face CPD.
CPD Hub

We provide face-to-face courses and live online training events (webinars) where you can benefit from information, advice and guidance from subject experts and network with fellow professionals. We'll also produce presentations and films that provide detailed information and feedback about specifications, grading criteria and candidate performance in past sessions.

Find out about all our current courses on the CPD Hub [www.cpdhub.ocr.org.uk](http://www.cpdhub.ocr.org.uk).

Online community

To share and swap ideas for delivery, post questions, support other tutors, suggest ideas for employer engagement, share links to other teaching and learning resource and more, visit our online community [http://social.ocr.org.uk/](http://social.ocr.org.uk/).

Useful documents and links

Key OCR documents

*Units*

These are separate documents that you'll find on the qualification page of our website.

*Admin Guide: Cambridge Technicals*

First teaching of these qualifications will begin in September 2016. In this guide, you'll find all the information you need for the administration of these qualifications, including key dates for taking exams. It's available on our website.

*Candidate Authentication Statement for OCR Cambridge Technicals*

Learners must sign this statement to confirm that the work they've submitted for assessment is their own. The form is completed when work is submitted for assessment and it can cover more than one unit. Every unit of the learner's qualification must be listed on a Candidate Authentication statement; there doesn't have to be a separate form for each unit.

*Centre plan for Meaningful Employer Involvement*

This plan must be completed to show how your centre will make sure every learner undertakes meaningful employer involvement while studying for these qualifications.

*Unit Recording Sheets (URS)*

You complete this form to record and justify your assessment decisions. You must fill in a URS for each unit a learner completes and make this available with the work during visiting moderation.

*Witness Statement*

You should use this form when you’ve observed a learner as part of their assessment. Use it to testify or corroborate what has actually been observed by you.

For more information, see ‘Witness Statements’ in section 8.
Other useful documents and links

OCR publications

What is malpractice?

JCQ publications

Access Arrangements and Reasonable Adjustments
A guide to the special consideration process
Instructions for Conducting Examinations
Suspected Malpractice in Examinations and Assessments

Find these at www.jcq.org.uk

Ofqual documents

Regulatory documents

Find these at https://www.gov.uk/guidance/regulatory-document-list
4 How these qualifications are structured

These qualifications are made up of units which can feature in one or more of the qualifications in the IT suite. Learners don’t have to achieve the units in any particular order but it’s worth noting that the content in mandatory Units 1 and 2 underpins the learning in other units (see Appendix B).

You must consider the relationship between the mandatory units and the others when you plan the learning programme. We strongly recommend that learners achieve these units before being assessed in others.

Unit 24 should be taken as the final unit as learners will draw on their skills, knowledge and understanding acquired through other units and apply what they have learned.

It’s important that you and the learner think carefully about the choice of units.

When combining units for the chosen qualification, it’s your responsibility to make sure the rules for the pathway are followed.
Level 3 Cambridge Technical Introductory Diploma in IT (360 GLH)

For this qualification learners must achieve five units and follow one specialist pathway. We’ll endorse their certificate with the pathway they achieve.

Key

- **M** = Mandatory unit: Learners must achieve all of these units
- **O** = Optional unit: Learners must achieve two optional units in their chosen pathway
- **O*** = Optional unit barred combination: Emerging Digital Technology Practitioner specialist pathway: Learners may only take one of these units (Units 18 or 19)
- **E** = External assessment: We set and mark the exam
- **I** = Internal assessment: You assessed this and we moderate it

<table>
<thead>
<tr>
<th>Unit no.</th>
<th>Unit title</th>
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To achieve this qualification there’s mandatory content in each specialist pathway that all learners must have successfully mastered. We’ve shown this content in the table above by an **M**. The mandatory content contributes 66.7% to the qualification grade for each pathway.

You can download the units from our qualification webpage.
Level 3 Cambridge Technical Foundation Diploma in IT (540 GLH)

For this qualification learners must achieve eight units and follow one specialist pathway.

We’ll endorse their certificate with the pathway they achieve.

Key

- **M** = Mandatory unit
- **O** = Optional unit
- **O*** = Optional unit barred combination
- **E** = External assessment
- **I** = Internal assessment

Emerging Digital Technology Practitioner specialist pathway:

Learners may only take one of these units (Units 18 or 19)

**Specialist pathways**

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To achieve this qualification there’s mandatory content in each specialist pathway that all learners must have successfully mastered. We’ve shown this content in the table above by an **M**. The mandatory content contributes 44.4% to the qualification grade for each pathway.

You can download the units from our qualification webpage.
Level 3 Cambridge Technical Diploma in IT (720 GLH)

For this qualification, learners must achieve 11 units and follow one specialist pathway.

We’ll endorse their certificate with the pathway they achieve.

Key
- **M** = Mandatory unit
- **O** = Optional unit
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- **E** = External assessment
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Emerging Digital Technology Practitioner special pathway:
Learners may only take one of these units (Units 18 or 19)

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To achieve this qualification there’s mandatory content in each specialist pathway that all learners must have successfully mastered. We’ve shown this content in the table above by an M. The mandatory content contributes 41.7% to the qualification grade for each pathway.

You can download the units from our qualification webpage.
Level 3 Cambridge Technical Extended Diploma in IT (1080 GLH)

For this qualification, learners must achieve 17-18 units and follow one specialist pathway. We’ll endorse their certificate with the pathway they achieve.

**Key**
- **M** = Mandatory unit
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<td>Data analysis and design</td>
<td>60</td>
<td>A/507/5007</td>
<td>I</td>
<td></td>
<td>M</td>
</tr>
<tr>
<td>8</td>
<td>Project management</td>
<td>60</td>
<td>F/507/5008</td>
<td>I</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>9</td>
<td>Product development</td>
<td>60</td>
<td>A/507/5010</td>
<td>I</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>10</td>
<td>Business computing</td>
<td>60</td>
<td>F/507/5011</td>
<td>I</td>
<td></td>
<td>O</td>
</tr>
<tr>
<td>11</td>
<td>Systems analysis and design</td>
<td>60</td>
<td>J/507/5012</td>
<td>I</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>12</td>
<td>Mobile technology</td>
<td>60</td>
<td>R/507/5014</td>
<td>I</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>13</td>
<td>Social media and digital marketing</td>
<td>60</td>
<td>D/507/5016</td>
<td>I</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>14</td>
<td>Software engineering for business</td>
<td>60</td>
<td>H/507/5017</td>
<td>I</td>
<td></td>
<td>O</td>
</tr>
<tr>
<td>15</td>
<td>Games design and prototyping</td>
<td>60</td>
<td>K/507/5018</td>
<td>I</td>
<td></td>
<td>O</td>
</tr>
<tr>
<td>16</td>
<td>Developing a Smarter Planet</td>
<td>60</td>
<td>M/507/5019</td>
<td>I</td>
<td></td>
<td>O</td>
</tr>
<tr>
<td>17</td>
<td>Internet of Everything</td>
<td>60</td>
<td>H/507/5020</td>
<td>I</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>18</td>
<td>Computer systems – hardware</td>
<td>60</td>
<td>K/507/5021</td>
<td>I</td>
<td></td>
<td>O</td>
</tr>
<tr>
<td>19</td>
<td>Computer systems – software</td>
<td>60</td>
<td>M/507/5022</td>
<td>I</td>
<td></td>
<td>O</td>
</tr>
<tr>
<td>Unit no.</td>
<td>Unit title</td>
<td>Guided learning hours (GLH)</td>
<td>Unit ref. no. (URN)</td>
<td>How are they assessed?</td>
<td>Digital Technician</td>
<td>Application Data Technician</td>
</tr>
<tr>
<td>---------</td>
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</tr>
<tr>
<td>20</td>
<td>IT technical support</td>
<td>60</td>
<td>T/507/5023</td>
<td>I</td>
<td>O</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>Web design and prototyping</td>
<td>60</td>
<td>A/507/5024</td>
<td>I</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>22</td>
<td>Big Data analytics</td>
<td>60</td>
<td>F/507/5025</td>
<td>I</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>23</td>
<td>Cognitive computing</td>
<td>30</td>
<td>J/615/1130</td>
<td>I</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>24</td>
<td>Enterprise computing</td>
<td>60</td>
<td>L/615/1131</td>
<td>I</td>
<td>M</td>
<td>M</td>
</tr>
<tr>
<td>CC*</td>
<td>Cloud technology</td>
<td>90</td>
<td>R/615/1132</td>
<td>E</td>
<td>M</td>
<td>M</td>
</tr>
</tbody>
</table>

*Formerly Unit 25

To achieve this qualification there’s mandatory content in each specialist pathway that all learners must have successfully mastered. We’ve shown this content in the table above by an M. The mandatory content contributes 47.2% to the qualification grade for each pathway.

You can download the units from our qualification webpage.
5 Preparing for qualification delivery and assessment

Centre and centre assessor responsibilities

Before you plan to seek approval from us to offer these qualifications you must be confident your centre can fulfil all the responsibilities described below.

The quality of the delivery of teaching and the integrity of assessments and quality assurance is paramount. Systems have to be in place so that assessments are fair, valid, reliable, authentic and sufficient. One of the key factors behind valid, fair and reliable assessment is the expertise of those doing the assessment and internal quality assurance.

With this in mind here’s a summary of the responsibilities that your centre and centre assessors must be able to fulfil:

- there are enough trained or qualified people to:
  - teach and assess the expected number of learners you have in your cohorts
  - internally standardise the number of assessors assessing units you offer

- all teaching staff have the relevant level of subject knowledge and skills to deliver the units you plan to offer and will fully cover the supporting knowledge, understanding and skills requirements for each unit

- any necessary resources are available for teaching and for assessment activities, to give learners every opportunity to meet the requirements of the unit and reach the highest grade possible

- there’s a system of standardisation in place so that all assessment decisions for internally assessed units are consistent, fair, valid and reliable. (see section on centre standardisation in section 8)

- there’s enough time for effective teaching, assessment and internal standardisation

- every learner undertakes meaningful activity involving employers while they’re studying for their Cambridge Technical Introductory Diploma, Foundation Diploma, Diploma or Extended Diploma in IT

- the OCR ‘Centre plan for Meaningful Employer Involvement’ is completed; see ‘Involving employers in teaching, learning and assessment’ later in this section

- processes are in place to make sure that learners’ work is authentic (see ‘authenticity of learners’ work’ in section 8)

- any materials we provide for assessment of internally assessed units cannot be used for practice and then used again, without change, for summative assessment (see section 8)

- for internally assessed units you comply with our requirements for giving feedback to learners (see section 8)

- for internally assessed units that grades are correctly recorded in all records and accurately transcribed to the claim being submitted to us
• exams must be conducted so they comply with the JCQ Instructions for Conducting Examinations

• a declaration is made at the point you're submitting any work to us for assessment that confirms:
  o all assessment is conducted according to the specified regulations identified in the Admin Guide: Cambridge Technicals
  o learners’ work is authentic
  o grades have been transcribed accurately when completing our claim documentation

• centre records and learners’ work is kept according to the requirements below:
  o learners’ work must be kept until after their qualifications have been awarded and any appeals processed. We will not consider any appeals if the centre does not keep the work.
  o internal standardisation and assessment records must be kept securely for a minimum of three years after the date we’ve issued a certificate for a qualification.

Centre assessors, who are responsible for assessing learners' evidence for internally assessed units, must make sure that:

• learners understand what they need to do to meet the grading criteria and produce valid and sufficient evidence

• learners have access to the resources they need to meet the grading criteria and produce evidence

• any assessment guidance is referred to when making assessment decisions

• learners know they must comply with the Data Protection Act when they’re producing work for assessment. Learners must not reference another individual's personal details in any evidence produced for summative assessment. It’s the learner’s responsibility to make sure evidence that includes another individual’s personal details is anonymised

• learners' work is authentic

• the learner has completed a Candidate Authentication Statement which covers every unit

• they judge learners’ work against the grading criteria we provide for the units

• they record their assessment decisions and justify the grade put forward for moderation using our unit recording sheet (URS) –we provide one for each unit

• they give an appropriate level of feedback to learners and record what feedback has been given as part of the summative assessment

• they liaise with other assessors in the centre to make sure assessment decisions are to the required standard (see ‘centre standardisation’ in section 8)

• they confirm the unit grade for the learner after internal standardisation (assessors can let the learner know which grade has been given but that it can’t be confirmed until after our moderation)
all relevant evidence is present and reflects centre assessment decisions against the grading criteria (and the candidate authentication statement is available) before the unit is claimed.

Guidance for delivery

The guidance about how to deliver these qualifications isn’t exhaustive. You should tailor your delivery so it meets the interests and needs of your learners and local and regional employers.

You’re free to deliver these qualifications using any mode of delivery that meets the needs of your learners. Whichever mode you use, your learners must have appropriate access to the resources they need to complete their learning and carry out their assignments for assessment.

You should consider the learner’s complete learning experience when you’re designing learning programmes. These qualifications can be part of a 16–19 study programme and there’ll be ways to integrate learning required for other qualifications or to develop and maintain the skills that are essential for further study and work. For example, we know it’s important to keep developing English and maths skills after GCSE. We’ll help you with your curriculum planning by signposting opportunities for English and maths skills practice in the delivery guides for each unit. You can access the delivery guides from the IT qualification page of our website.

A project-based approach to teaching and learning is an ideal way to deliver these qualifications holistically, and we will help you develop your approach through our resources. We’ve talked with centres who deliver our qualifications about the benefits of a project-based approach to learning. They’ve told us:

- it reinforces a synoptic application of skills and knowledge
- it’s relevant to and reflective of work
- it makes the process of learning and application more meaningful and motivating.

We’ve designed these qualifications to facilitate this.

Involving employers in teaching, learning and assessment

We’ve worked with IT businesses to make sure the learning is relevant for 18-year-olds who are going on to work in this sector.

It’s essential that learners appreciate how the knowledge, understanding and skills they acquire are applied in the workplace. Involving employers also creates an engaging and motivating link to work. To this end, we will require you to involve employers in the teaching, learning and/or assessment of these qualifications.

All learners must engage in activities related to learning and/or assessment where an employer has made a contribution to the activity. The employer must be directly involved in the IT sector.

We don’t prescribe the amount of employer involvement but it must be significant and by that we mean it must cover one or more elements of the qualification’s mandatory content. You don’t have to involve employers in the delivery or assessment of every mandatory unit; we recognise it may not be possible to do this.
We require you to complete a plan of how you will do this and to sign a declaration to confirm that every learner has had access to meaningful employer involvement. You must complete the OCR ‘Centre plan for Meaningful Employer Involvement’ and make this available at each moderation session. You will find the plan on the qualification page of the OCR website.

Your moderator will review and report on your completion of the Centre plan for Meaningful Employer Involvement. We will impose sanctions if you don’t secure meaningful employer involvement for every learner. This could mean you receive a written warning from us or, if the plan is not completed, result in us withdrawing your centre approval to deliver the Cambridge Technical Introductory Diploma, Foundation Diploma, Diploma or Extended Diploma in IT.

Here are eligible activities all of which are capable of covering one or more elements of the mandatory content.

- We allow you to design your own assignments for summative assessment and you could involve employers to help identify a scenario on which to base the assignment – a context for carrying out tasks, creating requirements for a solution that’s needed, identifying a problem to be solved – and the tasks to be completed.

- Employers could be involved in delivery such as teaching a master class in a specialist area. For example if the unit involves social media and digital marketing for businesses, an employer could talk about why they use social media as a marketing tool and why they selected the social media that they have. In addition, the employer could discuss the success criteria that they have used and how effective their use of social media has been.

- While these qualifications don’t call for work experience, there are practical elements in many of the internally assessed units that allow a learner to consolidate their learning and further develop their skills, knowledge and understanding if the work experience element of their study programme is directly relevant to their Cambridge Technical qualification. Work they undertake during work experience could contribute to the evidence for summative assessment. You must plan this with the learner and employer so the work allows the learner to cover the requirements of the unit and you’re able to authenticate it. (Work experience only meets the requirement for employer involvement if it’s relevant to their Cambridge Technical in IT.)

- Employers could act as an expert witness and comment on the learner’s use of skills, knowledge and understanding to complete a task or tasks that contribute to the assessment of their performance. Witnesses must comment on what they’ve observed the learner doing. It’s the responsibility of the centre assessor to assess if what the learner has done meets the requirements of the unit.

The following activities, while valuable and still worth arranging, are **not** considered as meeting the requirement:

- simulated or provider-based working environments, for example, small manufacturing units, car servicing facilities, salons and shops
- employers hosting visits, providing premises, facilities or equipment
- employers or industry practitioners providing talks or contributing to delivery on employability, general careers advice, CV writing or interview training
• learners’ going to career fairs, events or other networking opportunities
• employers providing learners with job references.

**Important information on teaching content in units**

*(The use of i.e. /e.g. in teaching content)*

The teaching content in every unit tells you what you have to teach to make sure learners can access the highest grades.

Anything which follows an i.e. details what you must teach as part of that area of content.

Anything which follows an e.g. is illustrative. Where we use e.g., learners must know and be able to apply relevant examples in their work, although these don’t need to be the same ones specified in the unit content.

For internally assessed units you need to make sure that any assignments you create, or any modifications you make to an assignment, don’t expect the learner to do more than they’ve been taught, but must enable them to access the full range of grades as described in the grading criteria.

For externally assessed units, where the content contains i.e. and e.g. under specific areas of content, we’ll follow these rules when we set questions for an exam:

• we may ask a direct question about unit content that follows an i.e.
• where we show unit content as an e.g. a direct question will not be asked about that example. Any questions about the area of content will give learners the opportunity to provide their own examples as the unit has not specified which examples they should be familiar with.

**Initial assessment of learners**

It’s important that you carry out an initial assessment to identify learners’ levels of knowledge and understanding and any potential gaps that need to be addressed. This will also:

• help you and the learners to identify the most appropriate optional units
• allow you to plan the assessment
• help learners understand the best place to start generating evidence.

**Prior knowledge and experience**

Of course learners may have already gained a lot of relevant knowledge and experience that you should take into account. This is particularly relevant where they’re studying part-time while in work.

Recognition of prior learning (RPL) is the process for recognising learning that never received formal recognition through a qualification or certification. This includes knowledge and skills gained in school, college or university and outside formal learning situations. Evidence can draw on any aspect of a candidate’s prior experience including:

• domestic/family life
• education
• training
• work activities
• voluntary activities.

It’s important you make it clear to learners that the RPL process is about how they’ve acquired the knowledge, understanding or skills; it doesn’t mean they’re exempt from the assessment. In no circumstance does the RPL process mean that any required qualification assessments can be avoided e.g. mandatory exams, practical/theory tests or assignments.

Evidence obtained through the RPL process must be assessed, to the same rigorous quality as evidence obtained through any other process.

RPL allows an individual to avoid unnecessary learning and we encourage the use of it in relation to the internally assessed units. Please let your learners know they can bring forward any relevant learning so it can be assessed against the grading criteria specified in the internally assessed unit(s) they aim to complete.

We ask you to judge the relevance of every aspect of a learner's prior learning (including how current and relevant it is) to the unit being assessed, before we moderate the assessment.
6 Synoptic learning and assessment

The study of IT crosses over many different topics and themes and it’s important that learners have the opportunity, early on in the course, to develop their knowledge and understanding of key principles and concepts within this sector.

The mandatory units, Units 1 and 2 (plus in some sizes of qualification, Unit 3) provide this framework for learners to develop this synoptic learning as they explore the fundamentals of IT, the use of information on a global scale and issues around information security and how risks can be minimised. All of these themes will be deepened or broadened in different ways as learners progress through the different internally assessed units within their respective qualification. For example, learners will need to apply security considerations covered in Unit 3 as they consider how to make computer networks safe in Unit 4; they will need to apply their understanding of the use of global information and the benefits to individuals and organisations as they outline potential development projects that could extend the scope of the Internet of Everything in Unit 17. These are just two examples of the synoptic links on offer, but many more do exist.

Of course, being able to apply knowledge and understanding in this way helps learners to develop their appreciation and understanding of the connections between the different elements of learning in these qualifications. You should encourage them to apply their learning across the qualification to help make their curriculum relevant and meaningful, and better prepare them to go on to employment or further study in IT related areas.

Every unit (except Units 1, 2 and 3) will require the learner to apply knowledge from one or more of the mandatory units so that their ability to apply this knowledge synoptically can be assessed. That’s why we strongly recommend that learners complete Units 1 and 2 before undertaking assessment in other units and consider carefully where Unit 3 is to be deployed given its important focus on security considerations, which learners will find useful as they progress through their qualification.

There will be many opportunities for learners to use the knowledge, understanding and skills in an integrated way and apply aspects they’ve covered in one unit to other units they’re studying. The section below shows how we formally assess synopticity. However, it by no means represents the full extent of the inter-connections that the learner can and should make between different units and areas of content in these qualifications. You’ll find that no matter what optional units learners choose, they’ll always draw on some fundamental knowledge and understanding from the mandatory units.

In the Extended Diploma it is important that learners do not undertake unit 24 (Enterprise Computing) until they have secured the relevant knowledge, skills and understanding from other units within the pathway.

Synoptic assessment in the internally assessed units

In the centre-assessed units, there are times when learners have to apply their knowledge and/or understanding from mandatory units 1, 2 and 3 (as relevant to the qualification size being studied). You’ll see this synoptic assessment indicated with an asterisk (*), in the grading grid e.g. P1*.

For example, Unit 9 Product development, pass criterion P2* (Develop a product requirements specification to meet an identified client’s requirements) requires the learner to consider ethical and operational systems, legal aspects, the process flow of information and security implications when devising their product requirements specification – all areas of content that have been studied in Units 1, 2 and 3 to varying degrees.
# External assessment

## Summary of the externally assessed units

<table>
<thead>
<tr>
<th>Unit</th>
<th>Fundamentals of IT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unit 1</strong></td>
<td><strong>Fundamentals of IT</strong></td>
</tr>
<tr>
<td>90 GLH</td>
<td>1 hour 30 minutes written paper</td>
</tr>
<tr>
<td>80 marks</td>
<td>OCR set and marked</td>
</tr>
<tr>
<td>section A comprises multiple choice questions</td>
<td></td>
</tr>
<tr>
<td>section B comprises short answer and extended response questions</td>
<td></td>
</tr>
<tr>
<td>a calculator may be used</td>
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</table>

<table>
<thead>
<tr>
<th>Unit</th>
<th>Global information</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unit 2</strong></td>
<td><strong>Global information</strong></td>
</tr>
<tr>
<td>90 GLH</td>
<td>1 hour 30 minutes written paper</td>
</tr>
<tr>
<td>80 marks</td>
<td>OCR set and marked</td>
</tr>
<tr>
<td>section A comprises short answer and extended response questions based on a pre-released case study. A new case study is released for each examination series and will include research prompts which learners will need to respond to prior to the external assessment</td>
<td></td>
</tr>
<tr>
<td>section B comprises short answer and extended response questions. These questions will not relate to the pre-release case study</td>
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</table>

<table>
<thead>
<tr>
<th>Unit</th>
<th>Cyber security</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unit 3</strong></td>
<td><strong>Cyber security</strong></td>
</tr>
<tr>
<td>60 GLH</td>
<td>1 hour written paper</td>
</tr>
<tr>
<td>60 marks</td>
<td>OCR set and marked</td>
</tr>
<tr>
<td>section A comprises short answer and extended response questions based on a pre-released case study. A new case study is released for each examination series and will focus on either a personal or a corporate perspective</td>
<td></td>
</tr>
<tr>
<td>section B comprises short answer and extended response questions and will focus on the theme (i.e. personal or corporate) that is not covered in the pre-released case study</td>
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</table>

<table>
<thead>
<tr>
<th>Unit</th>
<th>Cloud technology (first exam available June 2017)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unit CC</strong></td>
<td><strong>Cloud technology (first exam available June 2017)</strong></td>
</tr>
<tr>
<td>90 GLH</td>
<td>1 hour 30 minutes MCQ CBT</td>
</tr>
<tr>
<td>70 marks</td>
<td>OCR set and marked</td>
</tr>
<tr>
<td>This test comprises multiple choice questions in a computer based test and will be completed using Surpass on OCR Secure Assess portal.</td>
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</tbody>
</table>

The case studies for Units 2 and 3 will be available from the qualification page on our website eight weeks before the timetabled examination date.

There’s one resit opportunity for all examined units.
Learning Outcome weightings

Each Learning Outcome (LO) in an externally assessed unit is given a percentage weighting. This reflects the size and demand of the content you need to cover and its contribution to the overall understanding of the unit. You'll find the weightings for each LO in the externally assessed units.

How these units are assessed

These units are available as timetabled examinations. We set the dates.

Achievement at unit level is graded as pass, merit or distinction based on reaching the required grade boundary marks for each unit. If a learner doesn’t achieve the mark required for a ‘pass’ grade we’ll issue an unclassified result for that unit.

We’ll assess these qualifications in accordance with Ofqual’s General Conditions of Recognition.

Your centre must provide appropriate assessment facilities for learners that comply with the JCQ Instructions for Conducting Examinations.

Availability of external assessment

There are two examination series each year in January and June (however, for Unit CC (formerly Unit 25), the first examination will be in June 2017). You can enter your learners for different units in different exam series. You’ll find full details in the Admin Guide: Cambridge Technicals.

Resitting external assessment

Learners can resit an examined unit once before they complete the qualification. We’ll use the best unit result from either sitting to calculate the certification result.

Your centre must make sure that when arranging resit opportunities you don’t adversely affect other assessments being taken.

Arranging a resit opportunity is at your centre’s discretion. You should only plan resits if it’s clear the learner has taken full advantage of the first assessment opportunity and formative assessment process.

Reporting suspected malpractice

For more information about suspected malpractice see section 8.
8 Internal assessment

Assignments for internal assessment

We recommend using assignments to assess learners for the internally assessed units.

An assignment has a set of related tasks with a common purpose or work-relevant reason for the learner to apply the knowledge, understanding and skills to achieve a unit. It acts as a stimulus to give learners the opportunity to generate evidence that meets the grading criteria.

The common purpose or work-relevant reason could be a scenario, a case study or brief that sets out the circumstances or reasons for completing the tasks. A scenario could describe the requirements for a solution to a problem (e.g. conducting big data analytics) or a case study could be used to inform a proposal (e.g. a case study relating to a business’s computer systems to inform a recommendation for a revised network structure).

You are free to create your own assignments to reflect the local or regional needs that are most relevant to your centre. There are more details in the next section.

We'll provide model assignments for the mandatory units that are internally assessed. Our model assignments can be:

- used as they are to assess your learners
- modified to suit your local or regional environment
- used as a guide to help you design your own assignments.

These qualifications are ideal for delivering through a project-based learning programme so you can carry the project-based approach through to the assessment.

Designing your own assignments for internally assessed units

We provide an assignment checking service for Cambridge Technicals centres. When you use this service, we check that the assignment you’ve designed covers the grading criteria in the unit and allows every learner to reach the highest grade if they demonstrate they have the associated level of knowledge, understanding and skills. You'll find details of how to request this service on our CPD Hub.

When designing assignments you must:

- write tasks in a way that makes it clear to the learner what they must do, don’t structure tasks so they give step-by-step instructions, repeat the learning or themes of the learning, or be so prescriptive or detailed that they give the answer to the learner. Tasks must allow the learner to decide how to approach the task (what they do in what order), meaning that they can apply their learning
- set tasks that reflect the command verbs used in the grading criteria. For example, where we ask for an evaluation the task you set must allow for a qualitative judgement to be made, taking into account different factors and using available knowledge, experience and evidence. There is a command verb glossary on the IT qualification page of our website.
• only specify the format of evidence when it’s a requirement of the grading criteria or learning outcome. For example, for a unit on marketing where the grading criteria are about messaging, inference and persuasion in text you could ask learners to produce the content of a webpage rather than ask them to create a webpage itself

• avoid the need for excessive amounts of evidence. For example, a report can be a good way to pull together the evidence to meet several grading criteria

• make sure every learner is able to produce their own evidence. For example, if the task is to diagnose a fault in a piece of equipment and learners are given equipment to assess you have to be able to verify that the learner diagnosed the fault themselves. This could mean observing each learner or asking additional questions on how they made the diagnosis. The evidence produced will also need to demonstrate that this is what took place, through the use of witness statements, for example.

• tell learners how long they should expect to spend on each task. This is for guidance. Learners must be allowed sufficient time to complete the tasks. The amount of time will vary depending on the nature of the tasks and the ability of individual learners.

• make sure every learner has access to appropriate resources to complete the tasks

• make every effort to make sure materials:
  o support equality and diversity in the language used, in the type of tasks set and in the scenarios provided
  o are free from discrimination and stereotyping of groups or individuals on the basis of, for example, gender, ethnicity, political beliefs, cultural background.

Finally, you don’t have to set the same assignment for every learner in the cohort. If a learner has work experience that they can use to generate evidence towards some or all of a unit you can work with the employer to tailor an assignment and enable that to happen. You can also cover more than one unit in an assignment.

**Assignments for practice**

You **cannot** use assignments you’re going to use for summative assessment as practice materials. (Summative assessment is the assessment of learning; it’s a measure of a learner’s achievement and you use it as the formal assessment of a learner’s knowledge, understanding and skills.)

Changing the context of an assignment will help you to manage this. If a unit calls for the learner to do a cost analysis, a practice task will of course ask them to do this. If you’ve provided the data they need to analyse for practice then change the data for the summative assessment. If the learner has to generate data about a specific product before analysing it, then change the product to one that will generate different data.
Internal assessment and external moderation: a summary of how it works

The key features of assessment and moderation for the internally assessed units are:

- you can create assignments to assess your learners against the requirements of a unit
- where possible, assessors should draw on learners’ work-based opportunities to generate evidence
- assessment of internally assessed units can take place at a time to suit you and your learners
- work for assessment is centre-assessed and assessment decisions are internally standardised within your centre
- your centre’s assessment decisions are externally moderated by one of our visiting moderators.
- if your centre-assessed work doesn’t meet the requirements determined by the learning outcomes and grading criteria of the unit(s), the unit grade(s) will be adjusted.

Your centre will need to identify staff that will act as centre assessors. They must have suitable subject knowledge and experience to be able to make judgements about learners’ achievements against the grading criteria of the unit.

You must have an effective system set up for recording assessment decisions, including decisions made during internal standardisation. Assessors must record the feedback given to learners.

You should record your comments on the Unit Recording Sheets, which you can download from the qualification webpage.

You must make sure assessment records are fully auditable. Our moderator must be able to see, for each unit, evidence of:

- who assessed the learner
- what was assessed, i.e. the unit evidence
- when the assessment took place
- what feedback was given to the learner
- when centre assessment decisions were internally standardised and by whom.
- what feedback was given to the assessor, including if they agree with the assessment decision or not (and why), as well as any action points that need addressing prior to submission for moderation and/or recommendations for future consideration.
Centre standardisation

If your centre has a number of staff acting as assessors for these qualifications, you must carry out internal standardisation to make sure all learners’ work is assessed consistently to the required standard. We have a guide on how internal standardisation may be approached on our webpages for Cambridge Technicals.

If you’re the only assessor in your centre for these qualifications, then it’s still advisable to make sure your assessment decisions are internally standardised by someone else either in your centre or another centre. This should be someone who has experience of the nature of these qualifications (e.g. is delivering a similar qualification in another subject) or has relevant subject knowledge. You should ask them to review a sample of the assessments. Please note, we are not able to provide information or contact details on centres offering this qualification.

You must keep evidence of your internal standardisation in the centre for the moderator to see.

So there’s a consistent approach to internal standardisation, you might decide to nominate an ‘Internal Quality Assurer’ (IQA).

Whoever is responsible for internal standardisation must make sure all assessors are assessing to the required standard and that all assessment decisions are fair, valid and reliable.

To do this they must:

- advise on interpretation of the standards, including feedback from previous assessments (where relevant)
- co-ordinate assessment practice
- provide advice and support to assessors
- monitor and observe assessment practice to make sure that all assessments are in line with the required standards
- sample assessments to confirm assessors’ judgements across all units and all grades
- make sure feedback is given to all assessors and documented, e.g. records of feedback
- suggest ways in which assessment may be brought into line to meet the required standard
- check that all units and all grades have been included in internal standardisation
- maintain assessment documentation
- organise regular standardisation meetings/activities/events in your centre
- identify assessor development needs
- act as arbitrator for any disagreements in outcomes of assessments, including appeals.
Taking assignments and assessing learners’ work

Learners can take assignments for internally assessed units at any time within the study programme. We can moderate your claims for internally assessed units when you’re ready.

We’ll arrange a date to visit that is suitable for both you and our moderator.

You must plan when you expect your learners to be ready for assessment. Learners can repeat an assignment if they have not performed at their best but you must use your discretion as to whether or not this is in their best interests. We strongly advise that you leave time in your planning in case an assignment needs to be repeated.

Authenticity of learners’ work

Every learner must produce their own work independently. You must put in place appropriate mechanisms to make sure that you can be confident that the work you accept as evidence of a learner’s achievement is their own.

You must:

- make sure learners and centre assessors understand what constitutes plagiarism and not accept plagiarised work as evidence
- be able to distinguish individual contributions from group work
- use supervision and questioning as appropriate to confirm authenticity
- make sure learners and centre assessors confirm the work is the learner’s own.

Plagiarism

Work must be free from plagiarism. Plagiarism is the submission of someone else’s work as your own and/or failure to acknowledge a source correctly. Plagiarism makes up a large percentage of cases of suspected malpractice reported to us by moderators. You must make sure you don’t accept plagiarised work as evidence.

In line with the policy and procedures of JCQ on suspected malpractice, the penalties applied for plagiarism would usually result in the claim not being allowed.

Plagiarism often occurs innocently when learners don’t know that they must reference or acknowledge their sources, or aren’t sure how to do so. It’s important to make sure your learners understand:

- the meaning of plagiarism and what penalties may be applied
- that they can refer to research, quotations or evidence produced by somebody else but they must list and reference their sources
- quoting someone else’s work, even when it’s properly sourced and referenced, isn’t an indication of understanding. The learner has to ‘do’ something with that information to show they understand. For example, if a learner has to analyse data from an experiment, quoting data doesn’t show that they understand what it means. The learner has to interpret the data and, by relating it to their assignment, say what they think it means.
Group working

Your learners can work collaboratively or in groups to carry out work towards assessment tasks. However, you must make sure that each learner generates their own individual evidence to show they’ve met the grading criteria.

When working in a group all learners in the group should have a responsibility and/or a role that gives them the opportunity to generate individual evidence for assessment. For example, if the unit requires learners to plan the organisation of an activity this could be managed in a group discussion. The group discusses ideas for the activity, organisational requirements, roles and responsibilities to complete the activity, etc. All learners must show that they’ve the skill of planning so all members of the group must take part in the discussion. If three members of the group contributed to the discussion and one member took notes but did not contribute to the discussion, their note taking would not be considered a contribution towards planning.

Supervision

We recognise that you might not be able to invigilate or directly supervise every learner as they complete their assignment. Learners can complete their assignments in their own time, at the centre or at home. If you can’t supervise, you must use enough checks so you’re confident the learner’s work is authentic. For example you can use questioning to confirm the depth and breadth of their understanding of the topic they’ve covered in a specific piece of work.

Use of questioning

Asking a learner questions will help you determine if the work is their own. If you haven’t been able to supervise the learner, then asking questions, for example, about how they’ve done the work, what processes they went through to produce it and how they’ve related that to the assignment, should give you a clear indication as to whether or not they’ve done the work themselves.

Learner and centre declaration

All learners must complete a declaration to confirm that the work they’ve submitted is their own. They must do this to cover every unit. We provide a Candidate Authentication Statement for you to use for this purpose. You’ll find it on our website.

We’ll also ask you to confirm this declaration when making a unit claim.

Feedback to learners

You can discuss work-in-progress towards summative assessment with learners to make sure it’s being done in a planned and timely manner. It also provides an opportunity for you to check the authenticity of the work. You must intervene if you feel there’s a health and safety risk.

Feedback mustn’t provide specific advice and guidance that would be construed as coaching as it would compromise the learner’s ability to independently perform the task(s) they are doing and constitutes malpractice.

You can annotate your feedback on the learners’ original work submitted for assessment or you can record it in your own separate document (whichever method you use it must be available to our moderator).
Your feedback should:

- be supportive, encouraging and positive
- inform the learner of what you’ve noticed, not what you think (for example if you have observed the learner completing a task you can describe what happened, what was produced and what was demonstrated).

Your feedback can:

- identify that the learner hasn’t met the command verb. For example, ‘This is only a description, not an evaluation’
- identify what area of work could be improved but not detail how to improve it. You can remind learners about what they were taught but not how to apply it to improve the work.

Your feedback must not:

- be so detailed that it provides a step-by-step guide on what to do
- coach the learner on how to achieve or complete the task
- provide detail on where to find information/evidence.

In other words, your feedback mustn't tell the learner what they need to do to improve their work. The learner needs to think how to apply their learning and your feedback. You mustn't do the work for them.

Taking an assignment for summative assessment

Learners are allowed to revise and redraft work without tutor/assessor involvement before they submit it for assessment.

You must provide your learners with the relevant resources they need to do the assignment. This could include:

- specialist equipment
- software
- people/participants
- practical space.

When learners are working on their evidence, you can ask questions about what they’re doing to encourage them, make sure they understand what the tasks are and to check they’re making progress. You can’t tell them how to complete the tasks in a way that would be tantamount to doing the work for them. You mustn't coach learners when they’re doing their assignment for assessment, as this would give them an unfair advantage. Please see the previous section ‘Feedback to learners’.

You should set a realistic date for submitting the assignment, having considered the purpose of the unit and how that might affect timescales. We don’t specify what the submission time for the assignment should be – we think it’s best to leave this decision to your professional judgement.
What evidence is needed to assess a learner?

The learner’s evidence should be in an appropriate format to demonstrate their skills and application of knowledge and understanding as specified in the grading criteria for a unit.

You should discuss with learners what the most suitable sources of evidence are. It isn’t the quantity of the evidence they’ve produced that’s important - it’s the quality and breadth, that they’ve produced it themselves, and that it meets the grading criteria.

Evidence could be written work, audio/visual recordings, digitally formatted documents, a product or photographs. Where possible the moderators need to see the actual product rather than screenshots of its creation.

Evidence can come from a number of sources. The main ones are:

- outcomes of assignments, tasks or work-based activities (through projects or real work)
- observation of practice
- responses to questions
- witness statements.

Learners should make sure their work is clearly presented, referenced and ordered to help in the assessment.

The same evidence can contribute to more than one unit as long as it clearly meets the relevant grading criteria. For moderation it must be clear which part of that evidence meets each unit.

Learners mustn’t reference another individual’s personal details in any evidence produced for summative assessment. It’s the learner’s responsibility to make sure evidence that includes another individual’s personal details is anonymised to comply with the Data Protection Act.

Witness statements

Witness statements can be a useful way of providing supporting evidence where a skill is being used which isn’t easily represented in portfolio evidence. They’re supplementary evidence of what the learner has done and are to be used in conjunction with other evidence. For example, a witness statement could support evidence of a learner delivering a presentation alongside the actual presentation and speaker notes.

Witness statements should be suitably detailed, for each learner, to enable the centre assessor and our moderator to determine if the grading criteria have been met. You should use the witness statement template available on our website.

Assessing work for (summative) assessment

Once your learners have completed everything they need to do for their assignment, they must submit their work to you to be assessed. You must be convinced, from the evidence presented, that learners can work independently to the required standard.
You must judge or ‘mark’ the work against the grading criteria for the unit and identify a grade. Please annotate the work to show where the evidence indicates they’ve achieved the grading criteria. Your centre must internally standardise the assessment decisions for the cohort and do this before you give feedback to the learner.

When you’re confident the learner has demonstrated that they’ve met all the requirements of the unit, for at least a pass grade, you can submit a claim to us for moderation.

You mustn’t add, amend or remove any work after it’s been submitted to us for final assessment.

Resubmitting work for (summative) assessment

If you and the learner feel they haven’t performed at their best during the assessment, the learner can, at your discretion, improve their work and resubmit it to you for assessment. You must be sure it’s in the learner’s best interests to re-attempt the assessment.

You should set a realistic date for the resubmission of work having considered the purpose of the unit and what the learner intends to improve. You must record the reasons why you’ve allowed them to resubmit in your centre’s assessment decision records. You must also follow our guidelines on giving feedback and record the feedback you give them on the original work. We monitor the assessment decisions you make.

You mustn’t encourage multiple re-submissions of work. Re-submission at the centre assessment stage is intended to allow the learner to reflect on feedback and improve, but not to be an iterative process where they make small modifications through on-going feedback to eventually achieve the desired level.

Reporting suspected malpractice

It is the responsibility of the Head of Centre¹ to report all cases of suspected malpractice involving centre staff or candidates. A JCQ Report of Suspected Malpractice form (JCQ/M1 for candidate suspected malpractice or JCQ/M2a for staff suspected malpractice) is available to download from the JCQ website (www.jcq.org.uk/exams-office/malpractice) and should be completed as soon as possible and emailed as follows:

- **Internal assessments and paper-based examined tests** – malpractice@ocr.org.uk.
- **On-screen tests** – etest@ocr.org.uk. You should title your email ‘[Qualification name] Suspected Malpractice Notification’ as the subject, inserting the qualification name where indicated.

When asked to do so by OCR, Heads of Centres are required to investigate instances of suspected malpractice promptly and report the outcomes to OCR.

Further information regarding reporting and investigating suspected malpractice and the possible sanctions and penalties which could be imposed, is contained in the JCQ publication: *General and Vocational Qualifications – Suspected Malpractice in Examinations and Assessments* which is available from the JCQ website. Centres may also like to refer to the OCR Website for more details.

¹ This is the most senior officer in the organisation, directly responsible for the delivery of OCR qualifications, e.g. the Head Teacher or Principal of a school/college. The Head of Centre accepts full responsibility for the correct administration and conduct of OCR exams.
9 External moderation

Your assessment decisions are externally moderated by an OCR visiting moderator. The arrangements for these are explained in the *Admin Guide: Cambridge Technicals*. External moderation makes sure centres have made the correct assessment decisions. Our moderator will confirm or adjust the grade you’ve given to a learner’s work and provide feedback to you on the decisions they’ve made.

External moderation of a centre’s assessment decisions is achieved through systematic sampling of the work submitted for moderation. The outcome of the sampled moderation will apply to all learners’ work submitted for that unit in the claim.

Your centre can have up to two moderation opportunities per academic year (subject to centre activity). We can arrange additional chargeable moderation sessions – please see the *Admin Guide: Cambridge Technicals* for further details.

On the basis of the sample taken, our moderator will either agree in the main with your centre’s assessment decisions or disagree with them in relation to particular units.

If the decision is agree, your centre’s assessment decisions for all learners’ work entered for moderation on that occasion, i.e. in the single claim submitted for moderation, will be confirmed by our moderator once moderation is completed.

If the decision is disagree, our moderator will provide feedback to your centre. Disagreement is usually down to one of the following:

- work doesn’t meet the required standard for the grading criteria claimed by the centre
- assessment in the sample is inconsistent
- some evidence is missing or hasn’t been cross-referenced to the grading criteria, so our moderator can’t find it
- there’s no evidence of assessment having taken place.

Our moderator will prepare a full report that will include comments on the accuracy of assessment and centre actions, if appropriate, for future assessments.

Where the moderator confirms the assessment decisions, they’ll submit the claims to us for processing.
10 How to calculate the qualification grade

Grading

Centre-assessed units

These units are assessed by your centre and externally moderated by us.

Each unit has specified grading criteria for pass, merit and distinction.

A summative unit grade can be awarded at pass, merit or distinction:

- to achieve a ‘pass’ a learner must have satisfied all the ‘pass’ grading criteria
- to achieve a ‘merit’ a learner must achieve all the ‘pass’ grading criteria and all the ‘merit’ grading criteria
- to achieve a ‘distinction’ a learner must achieve all the ‘pass’ grading criteria and all the ‘merit’ grading criteria and all the ‘distinction’ criteria.

If a learner doesn’t meet all the ‘pass’ grading criteria, we issue an unclassified result for that unit.

Externally assessed units

We mark and assess all externally assessed units. We mark each one according to a mark scheme, and the mark will determine the grade awarded (‘pass’, ‘merit’ or ‘distinction’). We determine grade boundaries for each of the externally assessed units each assessment series. If a learner doesn’t achieve the mark required for a ‘pass’ grade, we issue an unclassified result for that unit.

Qualification

We grade the overall qualification using a structure of Pass, Merit, Distinction, Distinction*. For the Foundation Diploma and Diploma qualifications the qualification grade awarded will be a combination of two grades e.g. Merit Pass (see ‘Qualification grade tables’ later in this section). Learners who don’t achieve a pass in the required units will be unclassified.

If a learner resits an examined unit (they can resit an examined unit once before completing the qualification) or resubmits an internally assessed unit, we use the best unit results to calculate the overall grade to make sure they get the best possible grade for their full qualification.

Depending on the optional units achieved, it is possible for learners to achieve more GLH than is needed for the qualification. Where this happens, in order to calculate the overall qualification grade, the ‘surplus’ GLH is adjusted from the optional unit with the weakest grade. This has no effect on the unit achievement.

We’ll print the pathways achieved on learners’ full qualification certificates.
Calculating the qualification grade

To be awarded a full qualification, **a learner must achieve at least a pass grade for all units** required for the qualification. If they don’t do so, they won’t be awarded the qualification.

Learners will be awarded a combination of Pass, Merit, Distinction or Distinction* qualification grades determined by the aggregation of points gained through the successful achievement of individual units.

The number of points available for each unit depends on the unit grade achieved.

### Points available for unit grade achieved

You’ll find details of unit GLH in ‘How these qualifications are structured’ in section 4.

Units 1 and 2 in the Cambridge Technicals in IT are 90 GLH; all other units are 60 GLH.

The table below shows the number of points issued for each grade.

<table>
<thead>
<tr>
<th>Unit GLH</th>
<th>Points table for units based on GLH</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>pass</td>
</tr>
<tr>
<td>30</td>
<td>7</td>
</tr>
<tr>
<td>60</td>
<td>14</td>
</tr>
<tr>
<td>90</td>
<td>21</td>
</tr>
</tbody>
</table>

To calculate the learner’s qualification grade

You will need to add up all the points for the units the learner has achieved, making sure they’ve covered the appropriate mandatory content, taken sufficient externally assessed units, and any units required for the chosen pathway.

Having calculated the total number of points based on the unit grades, you’ll check this figure in the qualification grade table for the relevant qualification, to identify the overall qualification grade. If a learner doesn’t achieve the lowest points score required for the qualification, we issue an unclassified result.

**Example A**

Learner A has taken the units required for the Foundation Diploma - IT Infrastructure Technician specialist pathway.
The calculation would be:

<table>
<thead>
<tr>
<th>Unit</th>
<th>GLH</th>
<th>Grade</th>
<th>Number of points</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>90</td>
<td>pass</td>
<td>= 21 points</td>
</tr>
<tr>
<td>2</td>
<td>90</td>
<td>merit</td>
<td>= 24 points</td>
</tr>
<tr>
<td>4</td>
<td>60</td>
<td>distinction</td>
<td>= 18 points</td>
</tr>
<tr>
<td>8</td>
<td>60</td>
<td>merit</td>
<td>= 16 points</td>
</tr>
<tr>
<td>11</td>
<td>60</td>
<td>pass</td>
<td>= 14 points</td>
</tr>
<tr>
<td>12</td>
<td>60</td>
<td>merit</td>
<td>= 16 points</td>
</tr>
<tr>
<td>18</td>
<td>60</td>
<td>merit</td>
<td>= 16 points</td>
</tr>
<tr>
<td>20</td>
<td>60</td>
<td>pass</td>
<td>= 14 points</td>
</tr>
</tbody>
</table>

Total number of points = 139 points

In this example, Learner A has an overall qualification grade of a Merit Merit.

Example B

Learner B has taken the units required for the Foundation - Data Analyst specialist pathway.

The calculation would be:

<table>
<thead>
<tr>
<th>Unit</th>
<th>GLH</th>
<th>Grade</th>
<th>Number of points</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>90</td>
<td>distinction</td>
<td>= 27 points</td>
</tr>
<tr>
<td>2</td>
<td>90</td>
<td>Pass</td>
<td>= 21 points</td>
</tr>
<tr>
<td>7</td>
<td>60</td>
<td>merit</td>
<td>= 16 points</td>
</tr>
<tr>
<td>9</td>
<td>60</td>
<td>pass</td>
<td>= 14 points</td>
</tr>
<tr>
<td>11</td>
<td>60</td>
<td>merit</td>
<td>= 16 points</td>
</tr>
<tr>
<td>13</td>
<td>60</td>
<td>merit</td>
<td>= 16 points</td>
</tr>
<tr>
<td>17</td>
<td>60</td>
<td>unclassified</td>
<td>= 0 points</td>
</tr>
<tr>
<td>22</td>
<td>60</td>
<td>pass</td>
<td>= 16 points</td>
</tr>
</tbody>
</table>

Total number of points = 126 points

In this example, while Learner B has enough points to be eligible for a Pass Pass, they wouldn’t be awarded it because they haven’t achieved at least a pass for Unit 17, an unclassified result would be issued.
Qualification grade table
OCR Level 3 Cambridge Technical Introductory Diploma (360 GLH)

The table below shows the points ranges and the grades that those ranges achieve.

<table>
<thead>
<tr>
<th>Points range</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>104 and above</td>
<td>Distinction*</td>
</tr>
<tr>
<td>100 – 103</td>
<td>Distinction</td>
</tr>
<tr>
<td>92 – 99</td>
<td>Merit</td>
</tr>
<tr>
<td>84 – 91</td>
<td>Pass</td>
</tr>
<tr>
<td>Below 84</td>
<td>Unclassified</td>
</tr>
</tbody>
</table>

Qualification grade table
OCR Level 3 Cambridge Technical Foundation Diploma (540 GLH)

The table below shows the points ranges and the grades that those ranges achieve.

<table>
<thead>
<tr>
<th>Points range</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>156 and above</td>
<td>Distinction*</td>
</tr>
<tr>
<td>153 – 155</td>
<td>Distinction* Distinction</td>
</tr>
<tr>
<td>150 – 152</td>
<td>Distinction Distinction</td>
</tr>
<tr>
<td>144 – 149</td>
<td>Distinction Merit</td>
</tr>
<tr>
<td>138 – 143</td>
<td>Merit Merit</td>
</tr>
<tr>
<td>132 – 137</td>
<td>Merit Pass</td>
</tr>
<tr>
<td>126 – 131</td>
<td>Pass Pass</td>
</tr>
<tr>
<td>Below 126</td>
<td>Unclassified</td>
</tr>
</tbody>
</table>

Qualification grade table
OCR Level 3 Cambridge Technical Diploma (720 GLH)

The table below shows the points ranges and the grades that those ranges achieve.

<table>
<thead>
<tr>
<th>Points range</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>208 and above</td>
<td>Distinction* Distinction*</td>
</tr>
<tr>
<td>204 – 207</td>
<td>Distinction* Distinction</td>
</tr>
<tr>
<td>200 – 203</td>
<td>Distinction Distinction</td>
</tr>
<tr>
<td>192 – 199</td>
<td>Distinction Merit</td>
</tr>
<tr>
<td>184 – 191</td>
<td>Merit Merit</td>
</tr>
<tr>
<td>176 – 183</td>
<td>Merit Pass</td>
</tr>
<tr>
<td>168 – 175</td>
<td>Pass Pass</td>
</tr>
<tr>
<td>Below 168</td>
<td>Unclassified</td>
</tr>
</tbody>
</table>
Qualification grade table
Level 3 Cambridge Technical Extended Diploma (1080 GLH)

The table below shows the points ranges and the grades that those ranges achieve.

<table>
<thead>
<tr>
<th>Points range</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>312 and above</td>
<td>Distinction* Distinction* Distinction*</td>
</tr>
<tr>
<td>308 – 311</td>
<td>Distinction* Distinction* Distinction</td>
</tr>
<tr>
<td>304 – 307</td>
<td>Distinction* Distinction Distinction</td>
</tr>
<tr>
<td>300 – 303</td>
<td>Distinction Distinction Distinction</td>
</tr>
<tr>
<td>292 – 299</td>
<td>Distinction Distinction Merit</td>
</tr>
<tr>
<td>284 – 291</td>
<td>Distinction Merit Merit</td>
</tr>
<tr>
<td>276 – 283</td>
<td>Merit Merit Merit</td>
</tr>
<tr>
<td>268 – 275</td>
<td>Merit Merit Pass</td>
</tr>
<tr>
<td>260 – 267</td>
<td>Merit Pass Pass</td>
</tr>
<tr>
<td>252 – 259</td>
<td>Pass Pass Pass</td>
</tr>
<tr>
<td>Below 252</td>
<td>Unclassified</td>
</tr>
</tbody>
</table>
11 Certificate and results

Claim a qualification

For the internally assessed units there are no specific deadlines for claiming the units. However, it’s important to make claims only when you’re confident the learner has met the requirements for the unit.

For examined units, the assessment is time-tabled and we’ll issue results according to the schedule given in the Admin Guide: Cambridge Technicals.

We can only award a qualification and issue a certificate for it once the learner has achieved all the units required for the qualification they’ve been entered for.

You shouldn’t make a claim unless, in the final opinion of your centre, the evidence meets the requirements for certification.

Certificates

We’ll put the regulated qualification titles and numbers on learners’ certificates.

We’ll issue a certificate confirming achievement of the qualification directly to your centre for successful learners. This is an automated process, you don’t need to claim or ‘cash-in’ a full qualification.

Unit certificates will not be issued as standard; however, a unit certificate can be requested by the centre. The unit certificate will be free of charge providing it is claimed within 2 years (24 months) of the learner being entered for the qualification.

If a learner can’t complete the full qualification, you can print a result slip showing individual unit results from OCR Interchange or you can make a specific request for unit certificates.

See the Admin Guide: Cambridge Technicals for full details.

Replacement certificates

For details on replacement certificates, see the Admin Guide: Cambridge Technicals.

Enquiries about results

Under certain circumstances, you may wish to query the result(s) issued to one or more learners.

To find out more about this, please refer to the JCQ Post-Results Services booklet and the Admin Guide: Cambridge Technicals.
12 Administration and other information

You’ll find all the details about how the qualifications run, what you need to do and when in the Admin Guide: Cambridge Technicals which is available to download from our website. It covers everything from becoming an OCR centre, to making entries, claiming certificates, special arrangements and contacting us for advice. It also gives dates for important steps in the process.

Avoidance of bias

We’ve taken great care in preparing these qualifications to avoid bias of any kind. We’ve given special focus to the eight strands of the Equality Act with the aim of making sure both direct and indirect discrimination are avoided.

Language

These qualifications and any associated assessment materials are in English only. Only answers provided in English will be assessed.

Delivery in Wales and Northern Ireland

Learners in Wales and Northern Ireland shouldn’t be disadvantaged by terms, legislation or aspects of government that are different from those in England. Where such situations might occur, we’ve used neutral terms so learners may apply whatever is appropriate to their own situation.

We’ll provide handbooks, assessments and supporting documentation in English.
Access arrangements and special consideration

There can be adjustments to standard assessment arrangements on the basis of the individual needs of learners.

It's important that you identify as early as possible whether learners have disabilities or particular difficulties that will put them at a disadvantage in the assessment situation and choose a qualification or adjustment that allow them to demonstrate attainment.

The responsibility for providing adjustments to assessment is shared between your centre and us. Please read the JCQ booklet *Access Arrangements and Reasonable Adjustments* at [www.jcq.org.uk](http://www.jcq.org.uk).

If you have learners who need a post-examination adjustment to reflect temporary illness, indisposition or injury at the time the assessment was taken, please read the JCQ document *A guide to the special consideration process*.

There's more guidance on access arrangements and special consideration on the Exams Officers area of the website [http://www.ocr.org.uk/ocr-for/exams-officers/](http://www.ocr.org.uk/ocr-for/exams-officers/).

If you think any aspect of these qualifications unfairly restricts access and progression, please email or call our Customer Contact Centre.
13 Contacting us

Feedback and enquiries

If you have any comments or enquiries about the qualifications in this handbook, you can get in touch with our customer contact advisers.

Write to: Customer Contact Centre
OCR
Progress House
Westwood Way
Coventry
CV4 8JQ

Email: vocational.qualifications@ocr.org.uk
Telephone: 024 76 851509
Fax: 024 76 421944

You could also visit our website at www.ocr.org.uk for more information about our qualifications.

Complaints

We deal with all complaints sensitively and speedily and use them to help us improve our service.

If you aren’t satisfied with a product or service we’ve provided, please follow the process set out in our Complaints Policy.

Write to: Director of Assessment Standards
OCR
1 Hills Road
Cambridge
CB1 2EU

Email: complaints@ocr.org.uk
Telephone: 024 76 851509
Fax: 024 76 421944
Appendix A Performance descriptors

Pass

Learners will be able to demonstrate a good level of knowledge of basic IT concepts. Learners will be able to draw on the knowledge that they have acquired through the learning process to identify and recall facts and characteristics associated with these IT concepts, using limited terminology.

Learners will make some basic attempt to apply their knowledge to vocational contexts provided - mostly familiar in nature - and the points they make will often be independent of each other. Points made may be superficial in nature.

There may be an inherent weakness in the ability of learners to move from giving an account of a particular issue to explaining the reason or purpose behind a specific course of action.

The supporting narrative that learners provide in assessments requiring an extended response will be limited in scope and may consist of a number of unrelated points which will be simplistic in nature and may lack relevance in relation to the contexts provided.

Any judgements made will be largely superficial and will lack any supporting commentary. There will be little evidence of building an argument, which will often result in a number of unconnected, basic statements.

Arguments may be obscurely presented and errors in grammar, punctuation and spelling may be noticeable and intrusive.

Merit

Learners will be able to demonstrate a reasonable knowledge of both basic and, to some degree, complex IT concepts, and be familiar with their use. Learners will be able to build on the knowledge base they have acquired through the learning process to demonstrate a reasonable understanding of these IT concepts, using a good level of terminology.

Learners will be able to apply their knowledge and, to some extent their understanding to vocational contexts provided – especially familiar and to a lesser extent unfamiliar and the points they make will start to make connections, drawing out various themes and implications from information supplied and their own frame of reference, although some opportunities for development will be missed. Responses on the whole will contain sufficient breadth but may on occasion lack depth.

There will be a strength in the ability of learners to explain the reason or purpose behind a specific course of action although learners will at times find analysing the consequences or implications from different viewpoints more problematic, resulting in a more inconsistent approach to the demonstration of higher level skills.

The supporting narrative that learners provide in assessments requiring an extended response will cover the majority of requirements and will consist of a number of arguments although some of these arguments may remain undeveloped and not consistently aligned with the context provided. Examples will be used to support points made.
Any judgements made will be sound and will be backed up by a well-developed commentary. There will be some evidence of building an argument supported by clear, logical statements.

Writing will be generally fluent, with an emerging sense of style and well-structured sentences and paragraphs. Points are mostly relevant and are explained using some appropriate terminology as the argument progresses. There are occasional errors of grammar, punctuation and spelling.

**Distinction**

Learners will be able to demonstrate an in-depth knowledge of both basic and complex IT concepts and will be familiar with their use. Learners will be able to build on the knowledge base they have acquired through the learning process to demonstrate a clear understanding of these IT concepts, using sophisticated and accurate terminology.

Learners will be comfortable applying their knowledge and understanding to vocational contexts provided – both familiar and unfamiliar and the points they make will be interlinked, drawing out various themes and implications from information supplied and from their own frame of reference, resulting in responses that contain real breadth and depth.

There will be a strength in the ability of learners to move from explaining the reason or purpose behind a specific course of action to analysing the consequences or implications from more than one viewpoint of taking these actions.

The supporting narrative that learners provide in assessments requiring an extended response will be comprehensive in scope and will consist of a number of developed arguments which will be backed up by clear, relevant examples directly related to the contexts provided.

Any judgements made will be wholly appropriate and will be backed up by a well-developed and well-reasoned commentary. There will be strong evidence of building an argument supported by relevant, sophisticated statements.

Learners will express complex ideas clearly and fluently. Sentences and paragraphs follow on from one another smoothly and logically. Arguments will be consistently well structured. There will be few, if any, errors of grammar, punctuation or spelling.
## Appendix B Links between units

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<th>Unit</th>
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**OCR Level 3 Cambridge Technical Introductory Diploma in IT, Foundation Diploma in IT, Diploma in IT and Extended Diploma in IT**
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*formerly Unit 25

You must consider the relationship between the units when you plan the learning programme. To help you with your delivery planning most units highlight opportunities for applying learning across units.
To find out more
ocr.org.uk/it
or call our Customer Contact Centre on 02476 851509
Alternatively, you can email us on vocational.qualifications@ocr.org.uk