

FAQs for Level 3 Cambridge Technicals in Laboratory Skills

Externally Assessed Units

The Level 3 Cambridge Technicals in Laboratory Skills currently contains 3 externally assessed units:

Unit 1 – Science Fundamentals (All qualification sizes)

- 90gh unit
- 2 hour exam
- 90 marks
- Questions will include a range of assessment content such as short questions which test knowledge, understanding and application. Questions will not demand, long theoretical answers but concentrate on the learner's ability to interpret realistic or real information in order to explain or carryout particular scientific tasks.
- Available in both January and June series
- It will be paper based

LO weightings:	
LO1	15-20%
LO2	15-20%
LO3	15-20%
LO4	15-20%
LO5	15-20%



Unit 2 – Laboratory techniques (All qualification sizes)

- 90gh unit
- 2 hour exam
- 90 marks
- This unit will use examples of real experiments as the focus for some questions, however it is not a requirement of this unit for learners to have any detailed prior knowledge or understanding of particular products used. Questions will provide sufficient product information to be used, applied and interpreted in relation to the taught content. During the external assessment, learners will be expected to demonstrate their understanding through questions that require the skills of analysis and evaluation in particular contexts.

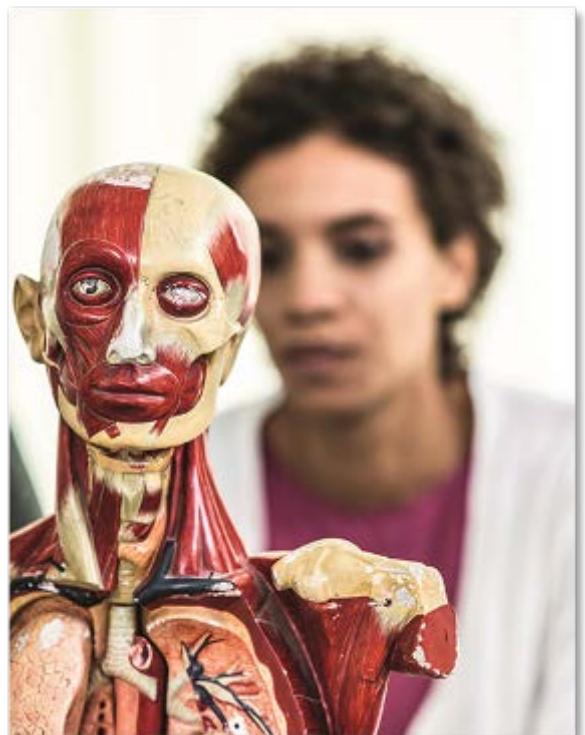
- Available in both January and June series
- It will be paper based
- 1 hour exam

LO weightings:	
LO1	15-20%
LO2	15-20%
LO3	15-20%
LO4	15-20%
LO5	15-20%
LO6	15-20%

Unit 3 – Scientific Analysis and Reporting (Foundation Diploma, Diploma and Extended Diploma only)

- 120gh unit
- 2 hour exam
- 100 marks
- Examination papers typically contain seven questions covering the learning outcomes presented in the unit specification. Problems are presented to learners using a range of styles, including short answer, calculation, fill the blanks, matching, true/false, longer essay type questions etc. Problems are presented in a scientific context.
- Available in both January and June series
- It will be paper based

LO weightings:	
LO1	10-20%
LO2	10-20%
LO3	10-20%
LO4	10-20%
LO5	10-20%
LO6	10-20%
LO7	5-15%



Extended Diploma update:

2 further examined units are being developed for the Extended Diploma qualification; working titles are:

1. Global Scientific Information
 - 60glh unit
 - 1 hour 30 minutes exam
2. Scientific Research Techniques

Details of the format and content of the assessment are not yet available.

Examined content:

In all externally assessed units you should be aware that:

- A direct question can be asked about any content in the unit that follows an i.e.
- However, a direct question may not be asked about any content that follows an e.g. and students are able to use their own examples.

Exam dates:

Exam timetables will be published here:

<http://www.ocr.org.uk/i-want-to/key-dates-and-timetables/>

Pass mark / grade boundaries:

All externally assessed units must be passed in order to achieve the full qualification.

The first examination series for Cambridge Technicals takes place January 2017. Once marking has taken place all marks will be attributed a unit grade of Pass, Merit or Distinction, depending on the candidate's achieved mark out of the total marks for the question paper, for example XX/80 marks. The boundaries for this conversion will not be known until the first series has gone through a full awarding process.

Resits:

Students are able to have one resit opportunity for each externally assessed unit. If a student fails their re-sit attempt we will issue an unclassified for the full qualification.

However, students are able to re-enter for the full qualification.

Results:

Your students' outcome grade will be distributed to centres in:

- January series – March
- May/June series - August

Resources to support external assessment:

On each qualification page you'll find a variety of support materials for each externally assessed unit.

- Sample Assessment Material (SAM)
- Unit Delivery Guides
- Lesson Elements
- Resource Links

Once we've gone through our first live series we'll be able to start producing additional support materials:

- Examiner Report (on results day)
- Past Paper and Mark Scheme (on results day)
- Past Paper and Mark Scheme with Commentary (to follow)

Mandatory Assessed Units

Certificate in Laboratory Skills (180GLH) all units are mandatory.

There are no centre assessed units.

Extended Certificate in Laboratory Skills (360GLH) all units are mandatory.

There are 3 centre assessed mandatory units:

- Unit 6 Control of hazards in the Laboratory
- Unit 18 Microbiology
- Unit 21 Product Testing Techniques*

All units should be taught holistically. *Unit 21 is a key synoptic unit where students will have the opportunity to practically use the knowledge they have gained in examined units 1 and 2.

There is a Model Assignment for each of these units.

Foundation Diploma in Laboratory Skills (540GLH) there are three pathways.

Students will be restricted in their choice of units according to the pathway chosen. All units are mandatory. Students will complete 4 mandatory centre assessed units.

Human Science Pathway

Mandatory:

- Unit 4 Human Physiology
- Unit 5 Genetics
- Unit 6 Control of hazards in the laboratory
- Unit 10 Testing consumer products*

Environmental Science Pathway

Mandatory:

- Unit 6 Control of hazards in the laboratory
- Unit 13 Environmental surveying
- Unit 14 Environmental management*
- Unit 16 Waste Management

Food Science Pathway

Mandatory:

- Unit 6 Control of hazards in the laboratory
- Unit 7 Human nutrition
- Unit 10 Testing consumer products*
- Unit 17 Food technology

All units should be taught holistically.

*Unit 10 in the Human and Food pathway is a key synoptic unit where students will have the opportunity to practically use the knowledge they have gained in examined units 1, 2 and 3.

*Unit 14 in the Environmental pathway is a key synoptic unit where students will have the opportunity to practically use the knowledge they have gained in units 1, 2 and 3. There is a Model Assignment attached to each of the mandatory units.

Diploma in Laboratory Skills (720GLH) there are three pathways.

Students will be restricted in their choice of units according to the pathway chosen. Some units are mandatory, some are optional. Students will complete 3 mandatory centre assessed units plus 4 optional units.

Human Science Pathway

Mandatory:

- Unit 5 Genetics
- Unit 6 Control of hazards in the laboratory
- Unit 10 Testing consumer products*

Optional:

- Unit 4 Human physiology
- Unit 7 Human nutrition
- Unit 8 Cell biology
- Unit 11 Drug development
- Unit 18 Microbiology

Environmental Science Pathway

Mandatory:

- Unit 6 Control of hazards in the laboratory
- Unit 13 Environmental surveying
- Unit 14 Environmental management*

Optional:

- Unit 15 Sustainable and renewable energy
- Unit 16 Waste Management
- Unit 18 Microbiology
- Unit 19 Crop production and soil science
- Unit 20 Conservation of biodiversity

Food Science Pathway

Mandatory:

- Unit 6 Control of hazards in the laboratory
- Unit 10 Testing consumer products*
- Unit 17 Food technology

Optional:

- Unit 4 Human physiology
- Unit 7 Human nutrition
- Unit 15 Waste management
- Unit 18 Microbiology
- Unit 19 Crop production and soil science

All units should be taught holistically.

*Unit 10 in the Human and Food pathway is a key synoptic unit where students will have the opportunity to practically use the knowledge they have gained in examined units 1, 2 and 3.

*Unit 14 in the Environmental pathway is a key synoptic unit where students will have the opportunity to practically use the knowledge they have gained in units 1, 2 and 3. There is a Model Assignment attached to each of the mandatory units.

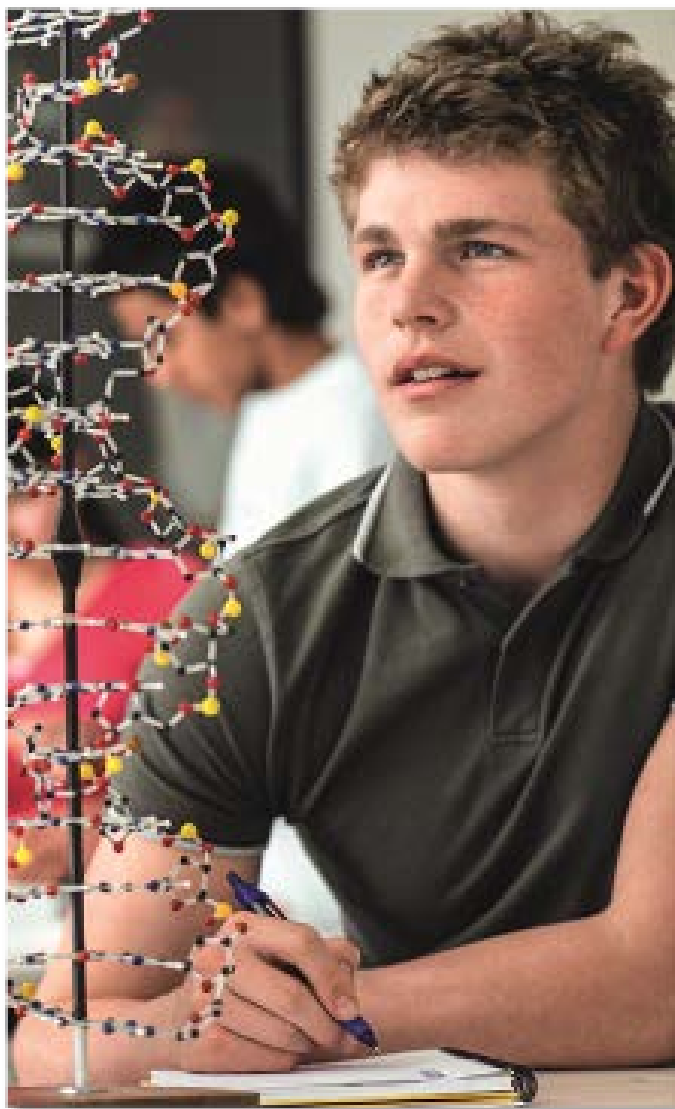
Extended Diploma in Laboratory Skills (1080GLH) all units are mandatory.

As well as taking 5 externally assessed units 1, 2, 3, 22 and 23 your students will also take 8 internally assessed mandatory units plus two centre assessed optional units:

- Unit 4 Human Physiology
- Unit 5 Genetics
- Unit 6 Control of hazards in the laboratory
- Unit 7 Human nutrition
- Unit 8 Cell biology
- Unit 13 Environmental surveying
- Unit 14 Environmental management
- Unit 16 Waste management

Optional:

- Unit 11 Drug development
- Unit 15 Sustainable and renewable energy
- Unit 17 Food technology
- Unit 18 Microbiology
- Unit 19 Crop production and soil science
- Unit 20 Conservation of biodiversity



Internally Assessed Units

The choice of internally assessed units will depend on the size of qualification or pathway your student is undertaking. Please refer to the Centre Handbook for more information.

Each internally assessed unit within the qualification must be passed in order for your students to achieve the full qualification.

Evidence:

Internally assessed units can be evidenced via whatever format the centre/learner deems suitable unless a specific format is stated in the Assessment Guidance section of the unit.

Holistic delivery:

Where possible, we would recommend you consider a holistic approach to delivery and assessment, covering a range of units/Learning Outcomes/Assessment Criteria through a task or project.

For example, Unit 6 Control of hazards in the laboratory can be delivered and assessed alongside Unit 10 Testing consumer products and/or Unit 13 Environmental surveying.

We will provide a project approach to delivery resource to help facilitate this.

Synoptic learning and assessment:

Centres should consider synoptic learning and assessment during the delivery and assessment of the qualification. Each unit document highlights where opportunities are for synoptic learning/assessment.

Model Assignments for mandatory centre assessed units will allow centres to assess all qualification sizes/pathways in a synoptic way. It is therefore strongly recommended that centres use the Model Assignments provided.

Resources to support delivery:

We've produced a range of teaching and delivery resources for the qualifications including:

- Delivery Guides
- Lesson Elements
- Resource Links
- Project Delivery Approach

Our Guide to Resources will provide you details of all the materials to support Cambridge Technicals:

www.ocr.org.uk/images/275035-a-guide-to-resources.pdf

Text Books:

Hodder Education is developing a text book specifically for the Cambridge Technicals in Laboratory Skills which will be available in August 2016.

Resources to support internal assessment:

We have a number of resources to support the assessment of internal units:

- Model Assignments
- Command Verbs Definitions
- Unit Recording Sheets
- Witness statement
- Candidate Authentication

Model Assignments

We are in the process of creating a model assignment (MA) for each mandatory unit within the specification. These can be found on the subject page:

You don't have to use the MA if you don't want to, or you could opt to change it to meet your local area needs. There's detail in the MA and Centre Handbook about this.

Or you could create your own MA for you students to use.

If you'd like us to check your MA for you we can do that too. There's a charge for this optional service and can found on our CPD Hub:

www.cpdhub.ocr.org.uk/DesktopDefault.aspx?e=fjefcbdbhgnidcponia&CATN_ID=3

Unit Recording Sheets

Each unit has a Unit Recording Sheet that must be used to record the assessment decisions of your students. These must be included with the students' portfolio of evidence.

Command Verbs Definitions

This will help you and your students gain a better understanding of the command verb in the Assessment Criteria.

Both of these support resources can be found on the Internal Assessment section of the qualification page.

Internal Standardisation:

To help you and colleagues with internal standardisation it's a good idea to read our generic guide.

There's also more information about Internal Standardisation in the Cambridge Technicals Centre Handbook.



Administration processes

You should read the Centre Handbook in order to assist with the administration of the Cambridge Technicals:

We also have a range of support materials and training to support you.

Moderation:

You'll receive two free visits per subject area per academic year. If required, you may request additional moderation visits – these will be charged at the standard visit fee, as described in the OCR Fees List.

If your students require their Cambridge Technical results in time for university entrance or to coincide with GCSE results release, we strongly recommend the latest date for a moderation visit is 30 June. To make sure your moderation visit is completed by this date please book it by 1 June.

Please note that your moderation visit cannot take place between the last two weeks of August.

It's a good idea to

1. Watch the Internal Assessment video: Internal Assessment
www.cpdhub.ocr.org.uk/DesktopDefault.aspx?e=eeefkacmhphiblnfcgpfbpepipilgfojgdoedcbkofjonlkjl
2. Attend our Live Webinar Training for Internal and External Assessment Processes/Administration – please see the CPD hub for further detail.
3. Read our PowerPoint slides to support the training.

These will help you understand the moderation process and how it works.

As Cambridge Technicals uses moderation visits rather than a purely external quality assurance model, all students that you want certification for at a visit must be in a 'claim' on OCR Interchange. There is not Accredited Centre Status/Direct Claim Status available so all learners (that you want certification for at that point) must be submitted in a claim in advance of the moderation visit. Details of the certification claims process can be found on our [website](#).

Re-submission of internally assessed units:

After the result for an internally assessed unit has been confirmed, your students are still able to resubmit the unit again at a higher grade (once further or revised work has been produced for the unit). This would require a new claim for the unit at a later moderation visit but will not require a new entry nor attract an additional fee. The system will no longer prevent resubmitting an internally assessed unit that has already been claimed.

When allowing students to revise work for resubmission after certification, the guidelines on feedback in Section 8 of the centre handbook should still be applied.

To find out more <http://www.ocr.org.uk/cambridgetechnicals>
call our Customer Contact Centre on **02476 851509**
Alternatively, you can email us on vocational.qualifications@ocr.org.uk