

Purpose Statement

Cambridge Technical Level 3 Foundation Diploma in Laboratory Skills **540GLH**
601/7460/2

The Level 3 Foundation Diploma in Laboratory Skills has been developed for learners aged 16+, who enjoy the sciences and want to learn how to apply their skills, knowledge and understanding in food, environmental or human science before progressing on to related courses in higher education.

This qualification will give you the scientific principles and practical techniques to carry out experiments safely and accurately. You will have the opportunity to collect, analyse, evaluate and present primary data. You will also evaluate the analytical techniques to improve the quality and collection of data. This will better prepare you to progress to higher education or employment in areas related to food, human or environmental science.

You will apply your skills, knowledge and understanding to tasks or activities that are relevant to how food, environmental and human sciences are used in the workplace. Having an appreciation of how these are used in work will also help to prepare you for continuing your education in this sector.

The Level 3 Foundation Diploma in Laboratory Skills is an Applied General qualification which is equivalent to 1.5 A levels. It should fill approximately two thirds of your timetable or if completed in a year may progress to further learning at Level 3, for example the larger sized Cambridge Technical Diploma or Extended Diploma in Laboratory Skills or OCR Cambridge Technical in Health and Social Care, Cambridge Technical in Engineering, GCE AS/A level geography, physics, biology or chemistry which it complements in providing the practical laboratory skills that employers and Universities are looking for.

It is recommended that if you are starting this qualification you will have achieved science qualifications for example GCSEs in science subjects at grade C or above or level 2 vocational qualifications, e.g. OCR Level 2 Cambridge Technical in Science. It is also recommended that you have grade C or above in Maths and English GCSE.

You can choose to follow one of three pathways, Food Science, Human Science or Environmental Science.

Everybody will study three units on:

- Science Fundamentals
- Laboratory Techniques
- Scientific Analysis and Reporting

Those taking the Human Science pathway must also take:

- Human physiology
- Genetics
- Control of hazards in the laboratory
- Testing Consumer Products

Those taking the Food Science pathway must also take:

- Control of Hazards in the Laboratory
- Human Nutrition
- Testing Consumer Products
- Food Technology

Those taking the Environmental Science pathway must also take:

- Control of Hazards in the Laboratory
- Environmental Surveying
- Environmental Management
- Waste Management

All units have been written to reflect current science practices. We have worked with employers and universities who have helped us to embed these practices and to include the transferable skills that they are looking for in future applicants such as:

- knowledge and understanding of biological, chemical and physical principles underlying laboratory science;
- transferrable skills necessary to perform laboratory techniques in the workplace;
- ability to analyse collected data to solve problems within a laboratory setting;
- ability to take a project based approach to research, analysis and development, linking scientific principles and laboratory techniques;
- ability to learn in work-related contexts;
- skills for independent learning and development.

The majority of career opportunities in this sector are at degree level where you may take specific degree programmes such as Food Science, Pharmaceuticals or Environmental Science and to gain employment you will mostly likely need to progress from this qualification into higher education or an apprenticeship programme. Once suitably qualified, you may progress into related jobs likely at more junior levels at first such as laboratory technician, food development technician, and conservation wardens before undertaking further study to progress onto more senior roles such as water quality expert, environmental manager, and microbiologist. Examples of employers who offer opportunities for suitably qualified individuals include: conservation organisations; the Environment Agency; water companies; waste management companies; DEFRA; food producers; pharmaceutical companies, the NHS and local authorities.

This qualification is part of a suite of Cambridge Technicals in Laboratory Skills at Levels 2 and 3. This is one of five qualifications available in the Level 3 Cambridge Technicals in Laboratory Skills suite:

- OCR Level 3 Cambridge Technical Level 3 Certificate in Laboratory Skills 180GLH (equivalent to 0.5 of an A level)
- OCR Level 3 Cambridge Technical Level 3 Extended Certificate in Laboratory Skills 360GLH (equivalent to one A level)

- OCR Level 3 Cambridge Technical Diploma in Laboratory Skills 720GLH (equivalent to two A levels)
- OCR Level 3 Cambridge Technical Extended Diploma in Laboratory Skills 1080GLH (equivalent to three A levels)

The smaller Certificate will develop the theory of scientific principles and practical techniques and you would take this alongside other complementary science-based qualifications and will prepare you for progression onto the larger sized qualifications in the suite or other similar Level 3 qualifications.

Through the Extended Certificate you will develop and apply skills, knowledge and understanding to perform laboratory techniques. This qualification will complement a study programme containing other science or STEM related qualifications including those from other vocational sectors such as sport or health and social care.

The larger Diploma provides a wider choice in optional units, allowing you to develop a further range of skills, knowledge and understanding to apply in research and analytical techniques for the development of products or processes relevant specifically to environmental, food or human science.

The extended Diploma includes a research project in which you will gain additional skills in using primary and secondary data to draw your own conclusions and present to a suitable audience. The additional mandatory unit in 'Global Scientific Information' will support your research techniques providing practical skills that will help in both University and in future employment.

SUPPORT

The following Universities support this qualification:

Bradford University

Northampton University

Reading University

Details of this support can be found on the OCR website <http://www.ocr.org.uk/qualifications/by-type/vocational-education-and-skills/16-19-performance-table-reform/>

FURTHER INFORMATION

To find out more about the OCR Level 3 Cambridge Technical Level 3 Foundation Diploma in Laboratory Skills please refer to the centre handbook available on the OCR website.

If you have any other queries please contact vocational.qualifications@ocr.org.uk

ABOUT US

OCR is a leading UK awarding body. We provide qualifications which engage people of all ages and abilities at school, college, in work or through part-time learning programmes. Our general and vocational qualifications equip learners with the knowledge and skills they need for their future, helping them achieve their full potential.