



Why choose Level 3 AAQ Extended Certificate in Medical Science?

The Level 3 Extended Certificate in Medical Science is about how we maintain health and the prevention and treatment of diseases. Medical scientists are at the forefront of healthcare services, as they are vital in the diagnosis of disease, determining the effectiveness of treatments and searching for new cures.

This qualification develops your knowledge, understanding and skills in key scientific principles to support progress to higher education and pursue graduate careers related to healthcare and medical research.

What will I study?

Unit 1: Human health and disease

This unit develops knowledge and understanding of human anatomy and physiology. You will develop an understanding of the function of organ systems and some problems that can occur in these systems.

The unit will enable you to understand the normal functioning of the body at a cellular and physiological system level. You will learn how these systems react in different situations, and how these systems can go wrong in order to report on the health of individuals.

Unit 2: Physiological measurement techniques

This unit develops knowledge and understanding about the physiological measurements that can be made to assess the function of major body systems. It relates anatomy and physiology to physiological measurement test results, through an understanding of the principles of the measurement techniques. In this unit you will perform tests which will accurately measure a range of physiological functions. You will be able to interpret the results of these tests and other tests and link this to possible physiological disorders.

Unit 3: Medical science research methods

This unit develops knowledge and understanding of planning, conducting, and reporting of research in medical sciences using a range of methodologies and techniques. You will develop the necessary knowledge and skills to carry out research in order to obtain meaningful information.

This unit also seeks to promote an understanding of the processes involved in drawing meaningful conclusions from research data. You will use your knowledge and understanding of research methods to conduct your own research. You will process the data you have collected and make evidence based conclusions.

Unit 4: Medicines and treatment of disease

This unit develops knowledge and understanding about the science of medicines and how they work through their interactions with body systems. It also introduces cancer, its relationship to genetics, and the range of therapeutic treatments available.

In this unit you will provide information to a range of audiences on how medicines work, to bring about effective treatment of diseases and disorders.

Unit 5: Clinical Laboratory techniques

This unit develops knowledge and understanding about the clinical laboratory techniques that can be used to assess body functions.

It relates knowledge and understanding of human physiology and biochemistry to clinical measurement test results through an understanding of the principles of the measurement techniques. In this unit you will perform tests which will accurately measure a range of biochemical and microbiological parameters. You will interpret the results of your tests, and other test results and link these results to possible physiological disorders.

How will I be assessed?

The Level 3 Extended Certificate in Medical Science consists of six units:

- Unit 1 is an exam which makes up 25 % of the qualification.
- Unit 2 is a non-exam assessment task which makes up 12.5% of the qualification. Your teacher will mark this unit.
- Unit 3 is a non-exam assessment task which makes up 12.5% of the qualification. Your teacher will mark this unit.
- Unit 4 is a non-exam assessment task which makes up 20% of the qualification. Your teacher will mark this unit.
- Unit 5 is a non-exam assessment task which makes up 15% of the qualification. The WJEC will mark this unit.
- Unit 6 is an exam which makes up 15% of the qualification.

Unit 6: Medical case study

This unit is a synoptic unit for the Extended Certificate qualification. It provides the opportunity for you to apply your understanding of the connections between the other five units of this Medical Science qualification. You will apply skills, techniques, knowledge, understanding and concepts from across the qualification content in order to complete the required assessment. The assessment involves medical case studies, which require you to analyse the information provided and develop a thorough assessment of the situation based on your knowledge and understanding gained from the other units of this qualification.

Careers

This qualification equips you with scientific knowledge and understanding, as well as practical skills that would support progression to a range of job roles within health care.

Job roles such as those within the areas of life sciences, i.e. carrying out a range of laboratory and scientific tests to support the diagnosis and treatment of disease, including microscopic examination of tissue samples, analysis of blood cells to investigate anaemia or analysis of samples to identify the cause of an infection.

Alternatively, there would also be opportunities to progress to job roles within the physiological sciences, working directly with patients, measuring, and evaluating specific organs and systems, such as scientists working in neurophysiology recording the electrical activity in the brain.

A considerable proportion of career opportunities in this sector are at degree level. When supported by other appropriate qualifications, the Level 3 Extended Certificate in Medical Science will enable progression to higher education to a range of Applied Science programmes, such as biomedical science, life sciences, and physiology.