Course Information

CITY OF WOLVERHAMPTON COLLEGE

Applied Science Pearson Level 3 National Extended Diploma

Study Mode: Full Time

Is this course right for me?

If you are passionate about science and want to progress to a successful career in the profession, then the BTEC Level 3 National Extended Diploma will provide you with a deeper understanding of scientific principles across the three main areas of biology, chemistry and physics.

You will develop a range of scientific, practical and analytical skills and work on projects and experiments in the practical working environment of our well-equipped science labs.

You will carry out practical sessions in our well-equipped science labs and throughout the course will have the opportunity to go on science-related educational visits and field trips.

Entry Requirements

For external applicants:
To access this course, you are required to:

- Five or more GCSEs at Grade 4 or above including Science, English and maths OR
- Successfully completed a full Level 2 study programme in a science-related subject (you will also have had to have achieved your grade 4 in English and Maths)
- Attend an interview/assessment with a member of the college's admissions team
- Demonstrate how you have previously had good attendance and punctuality and a good attitude to learning

For internal progression learners (already studying with us):
Learners must be able to demonstrate that they:

- Have successfully completed a relevant course that naturally progresses onto this programme, achieving a good standard
- Have improved their English and maths grades since enrolment
- Have maintained good attendance and punctuality
- Show a consistently positive attitude to learning

What will I learn?

During year one of the course you will study the following:

- Principles and applications of science I
- Practical scientific procedures and techniques
- Science investigation skills
- Laboratory techniques and their application
- Physiology of human body systems
- Electrical circuits and their applications

In Year Two of the course you will study the following:

- Principles and applications of science II
- Investigative project
- Contemporary issues in science
- Industrial chemical reactions
- Applications of organic chemistry
- Medical physics techniques

What skills will I gain?

Studying this course you will gain knowledge and understanding of:

- A range of technical, scientific and employability skills
- In-depth practical work
- Research and study skills
- Demands and legislation in science workplace
- Monitoring and recording scientific data
- The science profession
- Role and responsibilities of a science technician or assistant practitioner
- Use the necessary skills to measure quantities for chemical reactions
- Use the correct equipment to identify structures and functions in different types of cells
- Investigate different types of energy and their transfers
- Communicate scientific information
- Know how procedures are followed and communicated in the scientific workplace
- Design a scientific laboratory
- Know about laboratory information management systems
- Demonstrate safe working practices in the scientific workplace
- Plan investigation relevant to the area of study
- Undertake the planned investigation, using appropriate scientific principles
- Collect, collate and analyse the results from the investigation
- Draw conclusions from the investigation
- Use analytical techniques
- Use scientific techniques to separate and assess purity of substances
- Use instruments/sensors for scientific investigations
- Know how scientific ideas develop
- Understand the public perception of science, as influenced by the media
- Investigate the ethical and moral issues associated with scientific advances
- Know the relationship between science, commerce and politics
- Know the levels of organization within the human body
- Relate the structure of the circulatory system to its function in a multi-cellular organism
- Relate the structure of the respiratory system to its function
- Relate the structure of the digestive system to its function
- Know atomic structure and the physical principles of ionising radiation and ultrasound
- Understand how radiopharmaceuticals are used in diagnosing imaging
- Know the basic principles of magnetic resonance imaging
- Understand the importance of radiation safety to the treatment of malignant disease

with radiotherapy

How will I be assessed?

You will be assessed via internal assessments to include the following methods:

- Two external exams (January with a resit opportunity in June)
- Practical techniques
- Lab reports
- Essays
- Presentations
- Diagrams
- Short answer questions

What can I do next?

Completion of the course will enable you to:

- Progress to the Applied Science Edexcel BTEC Level 3 National Extended Diploma (year two)
- Apply for a job as a science technician or assistant practitioner in a laboratory
- Apply for an apprenticeship
- Enrol for a higher education qualification

Delivery

Location: City Learning Quarter

Start Date: 07/09/2026

Day:

Time:

Course Fee:

Course Code: CP0006

Study Mode: Full Time

Apply online: **www.wolvcoll.ac.uk/apply**