

BTEC Applied Science (National Diploma) Pearson/ Edexcel

Students tend to pair this subject with A Level Maths, Business, IT or Product Design.

COURSE DETAILS:

Students will gain a National Diploma in Applied Science from Pearson/Edexcel. The course has a recommended 720 guided learning hours (GLH) which is the equivalent in size to two A Levels for this reason we offer Applied Science as a double option.

Course Structure – 8 units over the 2 years, comprised of the following:

- Two externally assessed exam units
- An externally assessed practical exam
- Independently researched coursework
- Dissertation style project

BTEC Applied Science Designed to be the substantive part of a 16–19 study programme for learners who want a strong core of sector study. This course may be complemented with other BTEC Nationals or A Levels to support progression to higher education courses in applied science. The additional qualification(s) studied allow learners either to give breadth to their study by choosing a contrasting subject, or to give their studies more focus by choosing a complementary subject.

ASSESSMENT:

Mandatory Units

- 1 Principles and Applications of Science - External
- 2 Practical Scientific Procedures and Techniques - Internal
- 3 Science Investigation Skills - External
- 4 Laboratory Techniques and their Application – Internal
- 5 Principles and Applications of Science II - External
- 6 Investigative Project -Internal

Optional Units

- 8 Physiology of Human body systems - Internal
- 10 Biological molecules and metabolic pathways – Internal

Externally-assessed units 38% of total grade

Each external assessment for a BTEC National is linked to a specific unit. All of the units developed for external assessment are of 90 or 120 GLH to allow learners to demonstrate breadth and depth of achievement. Each assessment is taken under specified conditions, then marked by Pearson and a grade awarded. The styles of external assessment used for qualifications in the Applied Science suite are:

- Examinations – all learners take the same assessment at the same time, normally with a written outcome, you will be tested on Advanced Level Biology, Chemistry and Physics concepts in Jan of Yr 12 and Yr 13.
- Set tasks – learners take the assessment during a defined window and demonstrate understanding through completion of a vocational task. This is a 3 hr practical exam which will be sat in April, followed by a 90 min written exam

External assessments are available once or twice a year and learners can have 2 resit attempts during the programme.

We select the most appropriate assessment styles according to the learning set out in the unit. Coursework will cover Biology, Chemistry, Physics and Laboratory safety concepts.

This ensures that learners are assessed using a variety of styles to help them develop a broad range of transferable skills. Learners could be given opportunities to:

- Write up the findings of their own research
- Use case studies to explore complex or unfamiliar situations
- Carry out projects for which they have choice over the direction and outcomes
- Demonstrate practical and technical skills using appropriate equipment, procedures and techniques.

Links to exam board specification and exam materials:

Specification: <https://qualifications.pearson.com/content/dam/pdf/BTEC-Nationals/Applied-Science/2016/specification-and-sample-assessments/BTEC-L3-Nat-Dip-in-Applied-Science-Spec.pdf>

Assessment: [https://qualifications.pearson.com/en/support/support-topics/exams/past-papers.html/student?Qualification-Family=BTEC-Nationals&Qualification-Subject=Applied%20Science%20\(2016\)&Status=Pearson-UK:Status%2FLive&Specification-Code=Pearson-UK:Specification-Code%2Fnat16-appsci](https://qualifications.pearson.com/en/support/support-topics/exams/past-papers.html/student?Qualification-Family=BTEC-Nationals&Qualification-Subject=Applied%20Science%20(2016)&Status=Pearson-UK:Status%2FLive&Specification-Code=Pearson-UK:Specification-Code%2Fnat16-appsci)

QUALITIES AND COMMITMENT EXPECTED FROM THE STUDENT:

The students who study Applied Science gain transferable knowledge and skills that prepare learners for progression to university. The transferable skills that universities value include:

- The ability to learn independently
- The ability to research actively and methodically
- To be able to give presentations and be active group members
- Reading scientific and technical texts
- Effective writing
- Analytical skills
- Practical skills
- Preparation for assessment methods used in degrees.

As well as preparing our students for University the Applied Science course provides learners with a range of skills that would be useful if they chose to pursue alternative career paths. These skills include:

- Cognitive and problem-solving skills: use critical thinking, approach non-routine problems applying expert and creative solutions, use systems and technology
- Intrapersonal skills: communicating, working collaboratively, negotiating, and influencing, self-presentation
- Interpersonal skills: self-management, adaptability and resilience, self-monitoring, and development.

THE FUTURE:

A BTEC Diploma in Applied Science will enable you to progress towards many degree courses including radiography, nursing, sports studies, applied science, medical sciences, pharmacology, dental technology, and foundation courses in pharmacy/optometry if coupled with Maths. Alternatively, this qualification can also lead to direct employment in a Science-related area such as laboratory work. The Diploma will earn you UCAS points in the same way that A Levels do.

(Please note that this course is NOT appropriate if you wish to become a doctor, veterinary surgeon, or dentist.)