



# BTEC LEVEL 3 APPLIED SCIENCE

## WHAT DO I NEED TO STUDY THIS COURSE?

The entry requirements for this course are 5 GCSEs at grade 4 or above including Maths and English Language.

## IS THIS COURSE FOR ME?

This course is for you if you are interested in the application of scientific methods and theories within the field of science and science research. The course provides you with a sound knowledge of how scientific methods and techniques can be used within the science industry. You will also develop professional and scientific skills, which will enable you to work or study within many industries ranging from aerospace engineers to zoology.

## WHERE WILL THIS COURSE TAKE ME?

The course gives you the professional skills needed to become a Scientist. The course is also the equivalent of 1 A-Level, and so allows progression to work within a range of scientific industries or progress onto university in a range of science-related subjects. The course can also be included within a suit of BTEC's and A-levels to gain entry to other professions and courses.

## WHAT WILL I LEARN?

**Year 1:** Two mandatory units

Unit 1: Principles and application in Science  
Learners will study the principles of Biology, Chemistry and physics at level 3. The biological element will include the levels of organisation within living organisms, the roles and functions of organs and organ systems. The chemical element will include the study of the chemical structure and properties of elements, compounds and mixtures. The Physical element will include the study of the physical properties of waves and their application to analyse evidence.

Unit 2: Scientific skills, procedures and methods  
Learners will study a range of scientific procedures including; chromatography, calorimetry, colorimetry, titrations and how they can be applied to forensic investigations.

**Year 2:** Two units are studied. One is mandatory and the other will be selected from a range of options linked to learner's destinations.

Mandatory unit 3 scientific investigation procedures  
Learners will complete a range of scientific investigations linked to diffusion, enzymes, rates of reaction, resistance and ecology, with the aim of developing scientific investigation skills.

Optional units selected from the list below

8	Physiology of Human Body Systems	60
9	Human Regulation and Reproduction	60
10	Biological Molecules and Metabolic Pathways	60
11	Genetics and Genetic Engineering	60
12	Diseases and Infections	60
13	Applications of Inorganic Chemistry	60
14	Applications of Organic Chemistry	60
15	Electrical Circuits and their Application	60
16	Astronomy and Space Science	60

## HOW WILL I BE ASSESSED?

Unit 1: Principles and application in Science will be assessed using a written form examination.

Unit 2 and unit 4: Scientific skills, procedures and methods and Forensic investigation Procedures in Practice will be assessed by the completion of three internally set and marked assignments. The assignments will also externally verified by EDEXCEL.

Unit 3: Scientific investigation procedures, is assessed using a practical investigation set by EDEXCEL and completed under exam conditions.



## FURTHER INFORMATION

See Mrs Booth