

WEST OXFORDSHIRE LEARNING PARTNERSHIP



**Abingdon
& Witney
College**

2017-18

Course Title:	BTEC Level 3 National Extended Certificate in Applied Science
Examination Board & Details	Pearson. The course is graded from P (pass) to D* (Distinction*) and is equivalent to one A Level.
Course Structure: YEAR 1	<p>Unit 1: Principles and Applications of Science I This unit provides the knowledge and understanding that underpins progression in the science sector and includes topics on:</p> <ul style="list-style-type: none"> • Periodicity and properties of elements • Structure and function of cells and tissues • Waves in communication. <p>Unit 2: Practical Scientific Procedures and Techniques This unit introduces quantitative laboratory techniques including:</p> <ul style="list-style-type: none"> • Undertaking titration & colorimetry to determine the concentration of solutions • Undertaking calorimetry to study cooling curves • Undertaking chromatographic techniques to identify components in mixtures • Reviewing personal development of scientific skills for laboratory work.
Course Structure: YEAR 2	<p>Unit 3: Science Investigation Skills This unit covers the skills needed in planning a scientific investigation:</p> <ul style="list-style-type: none"> • Data collection, processing and analysis/interpretation • Drawing conclusions and evaluation • Enzymes in action • Diffusion of molecules • Plants and their environment • Energy content of fuels <p>Unit 8: Physiology of Human Body Systems This unit focuses on the physiological make up of three human body systems:</p> <ul style="list-style-type: none"> • Understanding the impact of disorders of the musculoskeletal system and their associated corrective treatments. • Understanding the impact of disorders on the physiology of the lymphatic system and the associated corrective treatments. • Exploring the physiology of the digestive system and the use of corrective treatments for dietary-related diseases.
How will you learn? (investigations, course work, etc.)	The focus of this course is to understand science through the development of practical skills and therefore there is a strong emphasis on practical experimentation. However, there will also be theory sessions and an expectation to gain further knowledge by independent research.
Assessment Methods	Unit 1 is assessed externally by a written paper of short-answer questions; Unit 3 will be assessed externally by a practical exam and write-up. Units 2 and 8 will be assessed internally by written assignments as well as practical skills assessments.
Skills you will need	<ul style="list-style-type: none"> • A desire to investigate science further. • An enquiring mind. • The ability to read and follow instructions • The ability to communicate effectively both verbally and in writing. • The ability to utilise effectively the mathematical skills acquired in GCSE Maths • An awareness of personal health & safety and that of others.
Career Steps/ Progression	In conjunction with other A Level qualifications, you could progress to higher education courses in the biomedical sciences, biochemistry, chemistry, forensic science and biology. This could then lead to career opportunities in biomedical research, sports science and environmental management, etc.
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