



Science content in the T Level Technical Qualification in Health

The Health T Level is from the Health and Science route.

This document refers to the Science content from section B2 Further Science concepts and the Occupational Specialisms in the T Level Technical Qualification in Health, (Level 3) (delivered by NCFE) (603/7066/X)

The table below maps this Science content to that of the BTEC National Extended Diploma in Applied Science and the GCE AS and A level subject content for biology, chemistry, and physics.

All the T Level Science content in section B2 is mandatory. BTEC offers a mandatory and optional content structure. **BTEC optional content is shown in red type.**

Science in the Occupational Specialisms

Science content outlined for the T Level in section 3 relates to the Occupational Specialisms, one of which must be selected by students. Science content in section 3 can either be a development/extension of Science concepts from section B1 or B2 or new concepts which are relevant only to that Occupational Specialism.

Assessment in T Levels

T level students will need to undertake a variety of assessment types such as those that take place in Higher Education for Health-related courses including examinations, controlled assessments, and Objective Structured Clinical Examinations.

T Level Core assessment is an externally set written exam(s) and an employer set project: both sets of exams assess students' knowledge, understanding and application of contexts, theories and principles relating to the core content in the specification. The written exams assess route and pathway knowledge through 'unseen' examination (which samples content), meaning breadth can be assessed at appropriate level 3 depth, whilst limiting the overall duration of assessment. The written exam structure will provide students with relevant exam and revision skills for HE. The employer set project is a more substantial project-based assessment set by employers through the awarding organisation, and will develop their critical thinking and problem solving skills. The project will draw upon knowledge and understanding from across the core content synoptically and will allow learners to effectively respond to a 'brief'. All science elements are assessed.

The occupational specialism components (**Section 3** below) are also externally assessed through synoptic assignments, except for the observation element, which takes place in a controlled environment is internally marked by providers and externally moderated.

BTEC assessment is external, internal, and synoptic. External and internal assessment is linked to a specific unit.

Science		
Specification content areas	Specification content by unit	Specification content by section
T Level ¹	BTEC in Applied Science ²	A Level ³
1. B2 Further Science (mandatory)		
<p>Components, location, function, structure and organisation of:</p> <ul style="list-style-type: none"> • The endocrine system • The respiratory system • The nervous System • The musculoskeletal system • The digestive system • The cardiovascular system • The reproductive system in males and females • The renal system • The integumentary system • Normal expected ranges for physiological measurements (heart rate, temperature, blood pressure, respiratory rate) • Factors that contribute to measurements outside of normal parameters • Measuring physiological parameters • Principles of homeostasis • Failure of homeostasis mechanisms subsequent development of disorders • Body related classification systems and their purpose 	<p>Organs and systems (Unit 5-M)</p> <ul style="list-style-type: none"> • The cardiovascular system • Ventilation and gas exchange in the lungs • Urinary system structure and function • <p>Physiology of Human Body Systems (Unit 8-O)</p> <ul style="list-style-type: none"> • Structure/function of the musculoskeletal system • Health matters and treatments related to the musculoskeletal system • Structure/function of the lymphatic system • Health matters and treatments related to the lymphatic system • Structure/function of the digestive system • Health matters and treatments related to the digestive system • <p>Human Regulation and Reproduction (Unit 9-O)</p> <ul style="list-style-type: none"> • Nervous system organisation • Cardiovascular and respiratory system • regulation and control 	<p>Control Systems</p> <ul style="list-style-type: none"> • Homeostasis • Dynamic equilibrium of systems, positive and negative feedback • Internal and external stimuli and system responses • Genome regulatory factors • Chemical and electrical coordination

¹ [T Level Technical Qualification in Health](#)

² [BTEC Level 3 National Extended Diploma in Applied Science](#)

³ [GCE AS and A level subject content for biology, chemistry, physics and psychology](#)

<ul style="list-style-type: none"> • Classification systems of diseases and disorders • Examples of diseases and disorders and their possible causes and symptoms • Injury and trauma and how the body reacts systematically as a response • Epidemiology and specific terminology • How epidemiology is used in disease prevention • How health promotion helps to prevent the spread and control of disease and disorder 	<ul style="list-style-type: none"> • Homeostatic mechanisms: feedback and control, glands and organs, homeostatic mechanisms, impact of an imbalance • Structure and function of reproductive anatomy • Reproductive processes • <p>Biomedical Science (Unit 20-O)</p> <ul style="list-style-type: none"> • The components of blood • Effects of diseases and disorders on the overall composition of blood • Diagnostic techniques used in haematology • Histology and cytology in medicine • Urinalysis as an analytical and diagnostic tool 	
<p>2. Science in the Occupational Specialisms</p> <p>NB students study ONE Occupational Specialism in addition to core science and further science.</p>		
<p>2 a. Supporting the Adult Nursing Team</p> <ul style="list-style-type: none"> • The function and structure of the skin • Pathophysiology of the skin ageing • process and the factors affecting skin • integrity • Common skin conditions and causes • Pressure injuries: causes and prevention 		
<p>2 b. Supporting the Midwifery Team</p> <ul style="list-style-type: none"> • Physiological changes which occur to mother 		

<ul style="list-style-type: none"> and foetus during each stage of pregnancy • Physiological changes that can be measured in pregnancy 		
<p>2 c. Supporting the Mental Health Team</p> <ul style="list-style-type: none"> • No extra science concepts in this OS 		
<p>2 d. Supporting the Care of Children and Young People</p> <ul style="list-style-type: none"> • Use of equipment when assisting with clinical tasks for children and young people (thermometer, blood pressure, oximeter, scales) • Physiological developments within each life stage of the child or young person (including puberty) 		
<p>2 e. Supporting the Therapy Teams</p> <ul style="list-style-type: none"> • No extra science concepts in this OS 		
	Additional content in BTEC	Additional content in A Level
	Investigative Project (Unit 6-M)	
	Contemporary Issues in Science (Unit 7-M)	
	Astronomy and Space Science (Unit 16-O)	
	Forensic Evidence, Collection and Analysis (Unit 23-O)	
	Cryogenics and Vacuum Technology (Unit 24-O)	
	Forensic Fire Investigation Unit 25-O)	
	Forensic Traffic Collision Investigation (Unit 26-O)	

		Biodiversity
		Ecosystems
		Energy for Biological Processes
		Organic Chemistry
		Vectors and scalars
		Mechanics
		Matter

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