

# Gwyddor Feddygol – Diploma Lefel 3

## Bwrdd Arholi

CBAC

## Crynodeb o'r Cwrs

Gwyddor Feddygol yw'r wyddor o ymdrin â chynnal iechyd, ac atal a thrin clefydau. Datblygwyd Diploma Lefel 3 mewn Gwyddor Feddygol i ddysgwyr sydd â diddordeb mewn gyrfaoedd yn ymwneud â gofal iechyd ac ymchwil feddygol. Mae gwyddonwyr meddygol ar flaen y gad ym maes gwasanaethau gofal iechyd, gan fod eu gwaith yn hanfodol wrth roi diagnosis o glefydau, canfod effeithiolrwydd triniaethau a chwilio am ffyrdd newydd o iachâd.

## Dull / Manylion Asesu

	UNED	CYNNWYS	ASESU
Astudio dros 2 flynedd	1	<b>Iechyd a chlefydau dynol</b> Anatomi a ffisioleg dynol. Bydd yr uned yn datblygu dealltwriaeth o sut mae systemau organau yn gweithredu a rhai problemau a all ddigwydd yn y systemau hyn.	Allanol
	2	<b>Technegau mesur ffisiolegol</b> Mesuriadau ffisiolegol sy'n bosibl eu gwneud i asesu gweithrediad prif systemau'r corff. Mae'n creu cyswllt rhwng anatomi a ffisioleg a chanlyniadau profion mesur ffisiolegol, drwy ddealltwriaeth o egwyddorion y technegau mesur.	Mewnol
	3	<b>Dulliau ymchwil Gwyddor Feddygol</b> Cynllunio, cynnal a llunio adroddiadau ar waith ymchwil yn y gwyddorau meddygol gan ddefnyddio amrywiaeth o fethodolegau a thechnegau.	Mewnol
	4	<b>Meddyginiaethau a thrin clefydau</b> Gwyddor meddyginiaethau, a sut maent yn gweithio drwy ryngweithio â systemau'r corff. Y mae hefyd yn cyflwyno canser, ei berthynas â geneteg, a'r amrywiaeth o driniaethau therapiwtig sydd ar gael.	Mewnol
	5	<b>Technegau labordy clinigol</b> Technegau labordy clinigol y mae modd eu defnyddio i asesu gweithrediadau'r corff. Mae'n cysylltu gwybodaeth a dealltwriaeth amffisioleg dynol a biocemeg â chanlyniadau profionmesur clinigol drwy ddealltwriaeth o egwyddorion technegau mesur.	Allanol
	6	<b>Astudiaeth achos feddygol</b> Yr uned hon yw'r uned synoptig gyffredinol ar gyfer cymhwyster Diploma. Mae'n rhoi'r cyfle i'r ymgeiswyr ddangos eu dealltwriaeth o'r cysylltiadau sydd rhwng pum uned arall cymhwyster Gwyddor Feddygol	Allanol

## Llwybrau Dilyniant / Gyrfaol

Mae'r cymhwyster hwn yn rhoi gwybodaeth a dealltwriaeth wyddonol i ddysgwyr, yn ogystal â sgiliau ymarferol a fyddai'n eu cefnogi wrth symud ymlaen at amrywiaeth o swyddi ym maes gofal iechyd. Swyddi fel rhai ym maes gwyddorau bywyd, hynny yw cynnal amrywiaeth o broffion labordy a phroffion gwyddonol i gynorthwyo â rhoi diagnosis a thrin clefydau. Gallai hyn gynnwys ymchwiliad microsgopig o samplau o feinwe, dadansoddi celloedd gwaed i ymchwilio i anaemia, neu ddadansoddi samplau i nodi yr hyn sydd wedi achosi haint. Fel arall, byddai cyfleoedd hefyd i symud ymlaen i swyddi yn y gwyddorau ffisiolegol, gan weithio'n uniongyrchol gyda chleifion, yn mesur a gwerthuso organau a systemau penodol, fel gwyddonwyr sy'n gweithio ym maes niwroffisioleg yn cofnodi gweithgarwch trydanol yr ymennydd. Mae cyfran sylweddol o'r cyfleoedd gyrfa yn y sector hwn ar lefel gradd. O gael ei ategu gan gymwysterau priodol eraill, bydd Diploma Lefel 3 mewn Gwyddor Feddygol yn caniatáu symud ymlaen i addysg uwch mewn amrywiaeth o raglennGwyddoniaeth Gymhwysol, fel gwyddor fiofeddygol, gwyddorau bywyd a ffisioleg.

# Medical Science – Level 3 Diploma

## Examination Board

WJEC

## Course Summary

Medical Science is the science of dealing with the maintenance of health and the prevention and treatment of diseases. The Level 3 Diploma in Medical Science is for learners who are interested in careers related to healthcare and medical research. Medical scientists are at the forefront of healthcare services, as they are vital in the diagnosis of disease, determining the effectiveness of treatments and searching for new cures.

## Assesment Details / Methods

	UNIT	CONTENT	ASSESSMENT
Studied over two years	1	<b>Human Health and Disease</b> Human anatomy and physiology. The unit will develop an understanding of the function of organ systems and some problems that can occur in these systems.	External
	2	<b>Physiological Measurement Techniques</b> The physiological measurements that can be made to assess the function of major body systems. It relates anatomy and physiology to physiological measurement test results, through an understanding of the principles of the measurement techniques.	Internal
	3	<b>Medical Science Research Methods</b> Planning, conducting and reporting of research in medical sciences using a range of methodologies and techniques. It is intended to enable the acquisition of the necessary knowledge and skills to carry out research in order to obtain meaningful information. It also seeks to promote an understanding of the processes involved in drawing meaningful inferences from research data.	Internal
	4	<b>Medicines and Treatment of Disease</b> Science of medicines, and how they work through their interactions with body systems. It also introduces cancer, its relationship to genetics, and the range of therapeutic treatments available.	Internal
	5	<b>Clinical Laboratory Techniques</b> Clinical laboratory techniques that can be used to assess body functions. It relates knowledge and understanding of human physiology and biochemistry to clinical measurement test results through an understanding of the principles of the measurement techniques.	External
	6	<b>Medical Case Study</b> This unit is the overall synoptic unit for the Diploma qualification. It provides the opportunity for candidates to demonstrate their understanding of the connections between the other five units of this Medical Science qualification.	External

## Progression Routes / Career

This qualification equips learners with scientific knowledge and understanding, as well as practical skills that would support progression to a range of job roles within health care. Job roles such as those within the areas of life sciences, i.e. carrying out a range of laboratory and scientific tests to support the diagnosis and treatment of disease, this could include microscopic examination of tissue samples, analysis of blood cells to investigate anaemia or analysis of samples to identify the cause of an infection. Alternatively, there would also be opportunities to progress to job roles within the physiological sciences, working directly with patients, measuring and evaluating particular organ and systems, such as scientists working in neurophysiology recording the electrical activity in the brain.

A significant proportion of career opportunities in this sector are at degree level. When supported by other appropriate qualifications, the Level 3 Diploma in Medical Science will enable progression to higher education to a range of Applied Science programmes, such as biomedical science, life sciences, and physiology.