Access to Higher Education Diploma (Biosciences) (Health Science) (Science) ROC & Units

Access to HE Diploma (Biosciences) - Rules of Combination

For the award of the Access to Higher education Diploma, learners must achieve 60 credits	
Level 3 credits from graded units with academic subject content	45
Level 2 or 3 credits from ungraded units	15
Total credit required	60

Mandatory requirements – graded units – 45 credits

Learners must achieve the following graded units - 45 Credits	
Units	**L3 Graded credits**
Units from the Biology Module	15
Units from the Chemistry Module	9
Extended Essay/Project	6
Units from any module	15

Mandatory requirements – ungraded units – 15 credits

	Learners must achieve the following ungraded units – 15 credits	
Units	**L3 ungraded credits**	**Level 2 credits**
Academic Skills	3	
A unit from the Study Skills Module	3	
Units from the Mathematics module		9

Other requirements
Learners must complete at least two time constrained assessments, one of which must be closed book and unseen.

Access to HE Diploma (Health Science) - Rules of Combination

For the award of the Access to Higher education Diploma, learners must achieve 60 credits	
Level 3 credits from graded units with academic subject content	45
Level 2 or 3 credits from ungraded units	15
Total credit required	60

Mandatory requirements – graded units – 45 credits

Learners must achieve the following graded units - 45 Credits	
Units	**L3 Graded credits**
Units from the Anatomy and Physiology module	9
Units from the Biology module	6
Units from the Chemistry module	6
Extended Essay/Project	6
Units from any module	18

Mandatory requirements – ungraded units – 15 credits

	Learners must achieve the following ungraded units – 15 credits	
Units	**L3 ungraded credits**	**Level 2 credits**
Academic Skills	3	
A unit from the Study Skills module	3	
Units from the Mathematics module		9

Other requirements
Learners must complete at least two time constrained assessments, one of which must be closed book and unseen.

Access to HE Diploma (Science) - Rules of Combination

For the award of the Access to Higher education Diploma, learners must achieve 60 credits	
Level 3 credits from graded units with academic subject content	45
Level 2 or 3 credits from ungraded units	15
Total credit required	60

Mandatory requirements – graded units – 45 credits

Learners must achieve the following graded units - 45 Credits	
Units	**L3 Graded credits**
Units from the Physics module	9
Units from the Biology module	9
Units from the Chemistry module	9
Extended Essay/Project	6
Units from any module	12

Mandatory requirements – ungraded units – 15 credits

	Learners must achieve the following ungraded units – 15 credits	
Units	**L3 ungraded credits**	**Level 2 credits**
Academic Skills	3	
A unit from the Study Skills module	3	
Units from the Mathematics module		9

Other requirements
Learners must complete at least two time constrained assessments, one of which must be closed book and unseen.

Modules

Click on a module title to view all units within the module.

Advanced Mathematics

Trigonometry

Level: Three
Credit Value: 3

Learning Outcomes The learner will	Assessment Criteria The learner can
1. Be able to apply the three trigonometric functions and their inverses.	**1.1** Use the three trigonometric functions for any angles in radians/degrees. **1.2** Apply to problems in two dimensions involving the use of right-angled triangles. **1.3** Apply to problems using the sine and cosine rules.
2. Be able to compute and use the surd form of the sin, cos and tan of certain angles.	**2.1** Derive the surd form for the sin, cos and tan of 30 degrees, 45 degrees and 60 degrees. **2.2** Use these to compute the sin, cos and tan of linear combinations of these angles.
3. Be able to investigate the graphs of the three basic trigonometric functions.	**3.1** Use graphs to interpret, symmetries and periodicities of the functions sin x, cos x and tan x. **3.2** Interpret the effect of simple transformations.

Access to HE Grade Descriptors:

- 2 - Application of Knowledge
- 5 - Communication and Presentation
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

Unit Assessment Requirements are not prescribed. They remain as a **recommended** approach to assessment where they still reflect the unit specification.

From September 2021, centre devised assessments are permitted for all units on all Agored Cymru Access to HE Diplomas.

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Assessment Information:

AC3.2 Such as y=3 sin x and y=3 sin 2x.

Solutions should be given to a stated level of accuracy in terms of decimal places or significant figures.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.

Concept, Rules and Simple Applications of Differentiation

Level: Three
Credit Value: 3

Learning Outcomes The learner will	Assessment Criteria The learner can
1. Understand the concept of differentiation and find derivatives from first principles.	**1.1** Find simple limits. **1.2** Identify the derivative as a limit. **1.3** Differentiate simple algebraic functions.
2. Be able to differentiate functions using standard rules.	**2.1** Differentiate the functions ax, sinx, cosx, tanx, lnx and e using standard rules. **2.2** Differentiate products, quotients and function of a function using standard rules. **2.3** Determine the second derivative.

Learning Outcomes The learner will	Assessment Criteria The learner can
3. Be able to use the derivative as a measure of rate of change to solve problems	**3.1** Determine rates of change. **3.2** Solve problems involving displacement, velocity and acceleration. **3.3** Calculate maximum and minimum values.

Access to HE Grade Descriptors:

- 1 - Understanding of the Subject
- 2 - Application of Knowledge
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

Unit Assessment Requirements are not prescribed. They remain as a **recommended** approach to assessment where they still reflect the unit specification.
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Assessment Information:

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.

Concept, Rules and Simple Applications of Integration

Level: Three
Credit Value: 3

Learning Outcomes The learner will	Assessment Criteria The learner can
1. Understand the concept of integration.	**1.1** Identify area as the limit of the sum of rectangles. **1.2** Show that integration is the reverse of differentiation.
2. Be able to integrate simple functions.	**2.1** Integrate standard functions ax^n, sin x, cos x, e^x and ln x. **2.2** Evaluate definite integrals. **2.3** Use trapezoidal and Simpson's rules to evaluate definite integrals.
3. Be able to use integration to find areas and to solve simple differential equations.	**3.1** Calculate the area under a curve. **3.2** Solve problems involving displacement, velocity and acceleration. **3.3** Solve simple problems in science and engineering that require a determination of a rate of change. Find a rate of change when solving simple problems in science and engineering

Access to HE Grade Descriptors:

- 1 - Understanding of the Subject
- 2 - Application of Knowledge
- 4 - Use of Information
- 5 - Communication and Presentation
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

Unit Assessment Requirements are not prescribed. They remain as a **recommended** approach to assessment where they still reflect the unit specification.

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Assessment Information:

AC3.2 A minimum of two problems.
AC3.3 A minimum of two problems.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.

Pure Mathematics, Equations, Geometry, Trigonometry and Calculus

Level: Three
Credit Value: 3

Purpose and Aim

To enable the learner to understand how to manipulate algebra and solve equations, to use coordinate geometry, to solve problems using trigonometry, and to use basic calculus.

Learning Outcomes The learner will	Assessment Criteria The learner can
1. Be able to manipulate algebra and solve equations. (N3.2)	**1.1** Manipulate algebraic expressions. **1.2** Solve linear, quadratic and simultaneous equations.

Learning Outcomes The learner will	Assessment Criteria The learner can
2. Understand how to use co-ordinate geometry. (N.3, N4.2)	**2.1** Calculate gradients of a line, including parallel and perpendicular lines. **2.2** Determine equations of straight lines. **2.3** Calculate the distance between two points. **2.4** Find the midpoint of a line.
3. Be able to solve problems using trigonometry. (N3.2)	**3.1** Derrive sine, cosine and tangent of any angle. **3.2** Apply trigonometry to right-angled triangles. **3.3** Use sine and cosine rules to solve problems.
4. Understand how to use basic calculus. (N3.2, N4.2)	**4.1** Perform basic differentiation. **4.2** Apply calculus to gradients, tangents and normals. **4.3** Calculate maxima and minima. **4.4** Calculate definitive integrals and areas. **4.5** Use the trapezium rule.

Access to HE Grade Descriptors:

- 1 - Understanding of the Subject
- 3 - Application of Skills
- 5 - Communication and Presentation
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

Unit Assessment Requirements are not prescribed. They remain as a **recommended** approach to assessment where they still reflect the unit specification.
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Assessment Information:

There is no specific assessment information to be used with this unit.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.

Algebraic Techniques for Forming and Solving Equations

Level: Three
Credit Value: 3

Purpose and Aim

To enable the learner to understand how to use analytical and graphical methods to solve quadratic and simultaneous equations; to be able to find the solutions to problems through use of equations; and to be able to express proper and improper algebraic fractions as partial fractions.

Learning Outcomes The learner will	Assessment Criteria The learner can
1. Be able to use analytical and graphical methods to solve quadratic equations and simultaneous equations.	**1.1** Solve quadratic equations by factorisation and by the recognised formula. **1.2** Solve quadratic equations by completing the square. **1.3** Solve simultaneous linear equations analytically and graphically.

Learning Outcomes The learner will	Assessment Criteria The learner can
	1.4 Solve simultaneous equations, one linear and one quadratic, by analysis and graphically.
2. Be able to find solutions to everyday and engineering problems through the use of algebraic equations.	**2.1** Form equations from everyday engineering situations. **2.2** Solve the equations and determine logical answers to the problem.
3. Be able to express proper and improper algebraic fractions as partial fractions.	**3.1** Give examples of algebraic improper fractions and convert to mixed fractions. **3.2** Convert proper fractions containing linear factors, quadratic factors and repeated factors to partial fractions.

Access to HE Grade Descriptors:

- 1 - Understanding of the Subject
- 2 - Application of Knowledge
- 4 - Use of Information
- 5 - Communication and Presentation
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

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Assessment Information:

AC 3.1 A minimum of four.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.

Using Graphs

Level: Three
Credit Value: 3

Purpose and Aim

To enable the learner to understand how to represent data graphically, to be able to analyse graphs, to be able to describe graphical methods of solving problems, and to be able to recognise and use transformations.

Learning Outcomes The learner will	Assessment Criteria The learner can
1. Understand how to represent data graphically.	**1.1** Choose suitable scales and plot points from a table or list of coordinates. **1.2** Obtain coordinates from an algebraic equation. **1.3** Draw graphs of simple algebraic relationships, including: straight lines polynomials (order up to at least 3) circles conic sections equations of the form $y = kx^n$

Learning Outcomes The learner will	Assessment Criteria The learner can
2. Be able to analyse straight line graphs.	the exponential and log functions. **2.1** Describe the equation of a straight line in the form y = mx + c, defining m and c. **2.2** Obtain the equation of a straight line from the gradient and a point, or from two points. **2.3** Determine the angle between two intersecting straight lines. **2.4** Solve problems involving the length, mid-point, gradient and division in a given ratio of a line joining two points.
3. Be able to interpret polynomial graphs.	**3.1** Describe the typical shapes of quadratic and cubic curves. **3.2** Draw tangents at different points on a curve and calculate their gradients. **3.3** Locate and explain stationary points. **3.4** Use graphs to solve simultaneous linear equations. **3.5** Use graphs to solve simultaneous linear and quadratic equations.
4. Understand the use of graphical methods to solve problems involving exponential and log functions.	**4.1** Reduce log equations and relationships to linear form and solve graphically. **4.2** Describe growth and decay relationships using the exponential function. **4.3** Solve growth and decay problems.
5. Be able to recognise and use transformations.	**5.1** State the effect of using the following transformations on y = f(x): y = af(x) y = f(x) + a y = f(x – a) y = f(ax)

Access to HE Grade Descriptors:

- 1 - Understanding of the Subject
- 2 - Application of Knowledge
- 3 - Application of Skills
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

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Assessment Information:

AC2.4 A minimum of three problems.
AC3.2 A minimum of two different points.
AC4.3 A minimum of two problems.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.

Mathematics - Statistics

Level: Three
Credit Value: 3

Purpose and Aim

To enable the learner to understand how to collect and interpret statistical data; to calculate measures of central tendency and dispersion; to investigate statistical correlation; and to be able to use probabilities to solve problems.

Learning Outcomes The learner will	Assessment Criteria The learner can
1. Be able to collate and organise appropriate statistical data. (N3.1)	**1.1** Specify a simple hypothesis. **1.2** Design a questionnaire to collect the relevant data to test the hypothesis in 1.1. **1.3** Record and group data to produce a frequency table.
2. Be able to represent and interpret data in statistical diagrams, charts and graphs. (N3.1, N3.3, N4.2)	**2.1** Construct statistical diagrams to represent data and to compare frequency distributions. **2.2** Construct and interpret cumulative frequency curves.
3. Understand the calculation of measures of central tendency and dispersion, giving reasons for selecting different measures. (N3.2, N3.3, N4.2, N4.3)	**3.1** Calculate and interpret arithmetic mean, mode and median for different types of frequency distributions. **3.2** Explain selection of measure for particular distributions. **3.3** Estimate quartiles and percentiles from a cumulative frequency curve. **3.4** Calculate the inter-quartile range. **3.5** Find the range of a set of data. **3.6** Calculate standard deviation and variance from a set of data.
4. Be able to investigate statistical correlation. (N3.2, N3.3, N4.2, N4.3)	**4.1** Draw scatter diagrams using two variables. **4.2** Fit a straight line to each graph by eye. **4.3** Give examples of scatter diagrams with positive, negative and no correlation.

Learning Outcomes The learner will	Assessment Criteria The learner can
5. Understand and use probabilities to solve problems. (N2.2, N3.2, N3.3, N4.2, N4.3)	**4.4** Use the regression formula to fit a line and compare with 4.2. **4.5** Explain limitations of the line. **4.6** Calculate Spearmanâ's rank correlation and interpret the result viz strong or weak, positive or negative correlation. **5.1** Calculate the probability of an event occurring. **5.2** Calculate the probability of a combined event occurring. **5.3** Draw a tree diagram or contingency table to illustrate the combined probabilities of several events. **5.4** Use Bayes' Theorem to solve problems.

Access to HE Grade Descriptors:

- 1 - Understanding of the Subject
- 2 - Application of Knowledge
- 4 - Use of Information
- 5 - Communication and Presentation
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

Unit Assessment Requirements are not prescribed. They remain as a **recommended** approach to assessment where they still reflect the unit specification.
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Assessment Information:

AC2.1 A minimum of three different types of statistical diagrams.
AC5.3 A minimum of three events.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.

Anatomy and Physiology

The Human Renal System

Level: Three
Credit Value: 3

Purpose and Aim

To enable the learner to understand the structure and functions of the human renal system, and to be able to describe the causes and symptoms of some renal diseases or disorders.

Learning Outcomes	Assessment Criteria
The learner will	**The learner can**
1. Understand the structure and function of the human renal system.	1.1 Explain the structures and functions of the human renal system.
.	. Explain the relevance of antidiuretic hormone (ADH) to the production of dilute/concentrated urine.
3. Understand disorder and interpret biochemical data from the renal system.	3.1 Analyse **given data** to identify disorders of the renal system. 3.2 Interpret simulated fluids from the renal filtration process.

Access to HE Grade Descriptors:

- 2 - Application of Knowledge
- 3 - Application of Skills
- 5 - Communication and Presentation
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

Unit Assessment Requirements are not prescribed. They remain as a **recommended** approach to assessment where they still reflect the unit specification.
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Assessment Information:

Barred combination with Respiratory and Renal Exchange Mechanisms RH53CY011.

AC1.1 To include: the kidneys, nephron, renal pelvis, ureters, bladder and urethra.
AC3.1 **Given data:** evidence must include biochemical data and clinical symptoms for minimum of three disorders.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Homeostasis and Control in the Human Body

Level: Three
Credit Value: 6

Purpose and Aim

To enable the learner to understand the needs of body cells, the regulation of temperature and water in the body, the role of the endocrine system, the structure and the role of the nervous system in maintaining homeostasis in the regulation of pH.

Learning Outcomes The learner will	**Assessment Criteria** The learner can
1. Understand the needs of body cells.	**1.1** Explain the concept of homeostasis. **1.2** Explain how cells survive. **1.3** Explain the role of negative feedback in homeostasis.
2. Understand the regulation of body temperature.	**2.1** Explain the role of the skin and other organs in temperature regulation.
3. Understand how the body maintains a fluid balance.	**3.1** Explain the structure and function of the kidney in the maintenance of fluid balance. **3.2** Explain the hormonal control of osmoregulation.
4. Understand the role of the endocrine system in maintaining homeostasis.	**4.1** Explain the location and functions of the endocrine glands. **4.2** Explain how the liver and pancreas control blood glucose levels.
5. Understand the role of the nervous system in homeostasis.	**5.1** Explain the function of the nervous system in maintaining homeostasis. **5.2** Explain the features and functions of neurons. **5.3** Explain what is meant by ‘reflex arc’. **5.4** Explain how nerves conduct neural impulses to and from the brain.
6. Understand the regulation of pH.	**6.1** Explain the role of the respiratory centre in pH regulation. **6.2** Explain the role of the kidneys in pH regulation. **6.3** Explain how buffers help to regulate blood pH.

Access to HE Grade Descriptors:

- 1 - Understanding of the Subject
- 5 - Communication and Presentation
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

Unit Assessment Requirements are not prescribed. They remain as a **recommended** approach to assessment where they still reflect the unit specification.

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Assessment Information:

AC4.1 A minimum of three glands excluding the pancreas.
AC5.1 A minimum of three functions.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.

The Human Skeletal System

Level: Three
Credit Value: 3

Purpose and Aim

To enable the learner to understand the structure and function of the human skeletal system and its components, and to understand data relating to the diseases/disorders of the skeletal system.

Learning Outcomes The learner will	Assessment Criteria The learner can
1. Understand the human skeletal system.	**1.1** Explain the structure and functions of the human skeletal system.
2. Understand the structure of bone.	**2.1** Explain how the structure of a bone determines its function within the skeletal system. .
3. Understand the synovial joints.	**3.1** Explain the bone and soft tissue components of a synovial joint.
4. Understand disorders in the skeletal system.	**4.1** Explain a range of disorders in the skeletal system.

Access to HE Grade Descriptors:

- 1 - Understanding of the Subject
- 5 - Communication and Presentation
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

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Assessment Information:

AC2.1 A minimum of two bones.
AC4.1 A minimum of three disorders. This should include cause and effect.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.

The Cardiovascular System

Level: Three
Credit Value: 3

Purpose and Aim

To enable the learner to understand the structure and functions of the cardiovascular system, and its associated conditions.

Learning Outcomes The learner will	Assessment Criteria The learner can
1. Understand the circulatory system.	**1.1** Explain the structure and functions of the heart. **1.2** Describe the cardiac cycle. **1.3** Explain the nervous control of the heart. **1.4** Explain the structure and components of the blood vessels. **1.5** Explain the structures and components of the blood.
2. Understand the lymphatic system and role of interstitial fluids.	**2.1** Explain the structure and function of the lymphatic system. **2.2** Outline the structure and function of lymph and tissue fluid.
3. Understand how exercise affects the circulatory and lymphatic systems.	**3.1** Explain how exercise affects the circulatory system. **3.2** Explain how exercise affects the lymphatic system.

Access to HE Grade Descriptors:

- 2 - Application of Knowledge
- 4 - Use of Information
- 5 - Communication and Presentation
- 7 - Quality

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Assessment Methods:

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Assessment Information:

There is no specific assessment information to be used with this unit.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.

Human Reproductive Systems

Level: Three
Credit Value: 3

Purpose and Aim

To enable the learner to understand the processes of reproduction, in humans.

Learning Outcomes The learner will	Assessment Criteria The learner can
1. Understand cell division.	**1.1** Explain the role of gametogenesis in the reproductive process.

Learning Outcomes The learner will	Assessment Criteria The learner can
2. Understand the role of hormones in human reproduction.	**2.1** Explain the role of male and female hormones in reproduction.
3. Understand the process of human reproduction.	**3.1** Describe male and female reproductive systems. **3.2** Explain foetal development from fertilization to birth. **3.3** Explain the process of birth.

Access to HE Grade Descriptors:

- 2 - Application of Knowledge
- 5 - Communication and Presentation
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

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Assessment Information:

AC2.1 Evidence must include the hormones that relate to menstruation, fertilization, pregnancy, birth and lactation.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.

Pulmonary Respiration

Level: Three

Credit Value: 3

Purpose and Aim

To enable the learner to understand the structure, functions and mechanisms of the pulmonary respiratory system and conditions which affect the respiratory system.

Learning Outcomes The learner will	**Assessment Criteria** The learner can
1. Understand the structure and functions of the pulmonary respiratory system.	**1.1** Explain the structure and functions of the pulmonary respiratory system. **1.2** Explain the mechanisms of ventilation and pulmonary gaseous exchange. **1.3** Explain the factors that determine the effectiveness of pulmonary gaseous exchange.
2. Understand conditions that affect the pulmonary respiratory system.	**2.1** Explain the causes and symptoms of conditions that affect the respiratory system. **2.2** Explain the link between lifestyle and conditions affecting the respiratory system.

Access to HE Grade Descriptors:

- 2 - Application of Knowledge
- 4 - Use of Information
- 5 - Communication and Presentation
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

Unit Assessment Requirements are not prescribed. They remain as a **recommended** approach to assessment where they still reflect the unit specification.

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Assessment Information:

AC1.1 To include entrance, trachea, lungs, bronchial tube, bronchioles, alveoli, pleura, rib cage.
AC2.1 A minimum of three conditions.
AC2.2 To include smoking and working in dust-laden atmospheres.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.

Biology

Energy Transfer within Cells

Level: Three
Credit Value: 3

Purpose and Aim

To enable the learner to understand the biochemistry related to respiration and photosynthesis.

Learning Outcomes The learner will	Assessment Criteria The learner can
1. Understand the role of energy carrier molecules within the cell.	**1.1** Explain the role of adenosine triphosphate (ATP) in energy transformations within the cell.
2. Understand the processes of aerobic and anaerobic respiration.	**2.1** Explain the biochemistry of aerobic respiration.

Learning Outcomes The learner will	Assessment Criteria The learner can
	2.2 Relate the structure of the mitochondrion to its function. **2.3** Explain the process of anaerobic respiration. **2.4** Compare anaerobic and aerobic pathways in terms of energy yield.
3. Understand the process of photosynthesis.	**3.1** Explain the biochemistry of photosynthesis. **3.2** Relate the structure of the chloroplast to its function.
4. Be able to determine respiratory quotient values in respiration and photosynthesis.	**4.1** Explain how respiratory quotient (RQ) values are determined. **4.2** Analyse data from experiments measuring: respiration photosynthesis. **4.3** Justify conclusions drawn from experiments on: respiration photosynthesis.

Access to HE Grade Descriptors:

- 1 - Understanding of the Subject
- 4 - Use of Information
- 5 - Communication and Presentation
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

Unit Assessment Requirements are not prescribed. They remain as a **recommended** approach to assessment where they still reflect the unit specification.

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All assessment evidence completed As part Of an Agored Cymru Access To HE Diploma Is subject To external moderation.

Assessment Information:

AC2.1 Evidence must include reference to:

- Glycolysis
- Krebs' cycle
- electron transport.

AC4.1 To include Calculation RQ=CO2 (eliminated)/O2 (consumed).
AC4.2 A minimum of one experiment from each.
If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Genetics and Heredity

Level: Three
Credit Value: 3

Purpose and Aim

To enable the learner to understand Mendelian genetics and the role of chromosomes in heredity.

Learning Outcomes The learner will	**Assessment Criteria** The learner can
1. Understand Mendelian genetics.	**1.1** Explain concepts of Mendelian genetics. **1.2** Explain dominant and recessive traits in specific conditions.
2. Understand the effects of chromosome number.	**2.1** Explain conditions resulting from the effects of: a) too many chromosomes b) too few chromosomes c) translocated chromosomes.
3. Understand the genetics of sex linked conditions.	**3.1** Explain the term 'sex-linkage'. **3.2** Analyse pedigree diagrams for sex-linked conditions.

Learning Outcomes The learner will	Assessment Criteria The learner can
	3.3 Explain how co-dominance and sex linkage affect phenotypic ratios.
4. Understand mutations.	**4.1** Explain gene changes in relation to DNA structure. **4.2** Explain spontaneous and induced mutations. **4.3** Explain physical and chemical mutagenic agents. **4.4** Explain the role of repair enzymes in the reversal of mutagenic effects.
5. Understand the causes of variation in living things.	**5.1** Explain the causes of variation in living things.

Access to HE Grade Descriptors:

- 2 - Application of Knowledge
- 5 - Communication and Presentation
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

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Assessment Information:

AC 1.2 A minimum of one dominant and one recessive condition.
AC 2.1 A minimum of one condition for each a, b and c.
AC 3.2 A minimum of two diagrams.
AC 4.3 A minimum of two physical and two chemical mutating agents must be given.
AC 5.1 A minimum of two causes.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.

Circulatory and Transport Systems in Mammals and Plants

Level: Three
Credit Value: 3

Purpose and Aim

To enable the learner to understand the structures of the mammalian circulatory system and the structure and functioning of the heart; to recognise blood and to understand gaseous transportation, loading and unloading; the formation and functioning of tissue fluid; changes in heart and pulse rate; and the main tissues involved in mass transport in plants.

Learning Outcomes The learner will	**Assessment Criteria** The learner can
1. Understand the structure and function of blood vessels.	**1.1** Compare the structure and function of: arteries veins capillaries. **1.2** Evaluate the causes of a disease affecting blood vessels.
2. Understand how the heart works.	**2.1** Explain the structure and function of the heart. **2.2** Describe the cardiac cycle.
3. Understand blood as a transport mechanism.	**3.1** Explain the structure and components of blood and how they support the transport of oxygen.. **3.2** Analyse and interpret oxygen dissociation curves.

Learning Outcomes The learner will	Assessment Criteria The learner can
	3.3 Explain how carbon dioxide is transported in the blood.
4. Understand tissue fluid.	**4.1** Explain the role of filtration pressure in the formation of tissue fluid. **4.2** Explain the functions of tissue fluid.
5. Be able to investigate changes in heart and pulse rate.	**5.1** Investigate the effect of exercise on heart rate.
6. Be able to identify tissues involved in transport of nutrients, water and respiratory gases .	**6.1** Explain how plant tissues act as transport mechanisms.

Access to HE Grade Descriptors:

- 2 - Application of Knowledge
- 3 - Application of Skills
- 5 - Communication and Presentation
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

Unit Assessment Requirements are not prescribed. They remain as a **recommended** approach to assessment where they still reflect the unit specification.
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Assessment Information:

AC1.2 May include altheroma and mycardial infarction.
AC2.1 This explanation may be part evidenced by a dissection.
AC3.2 A minimum of two curves.
AC5.1 Evidence must include an analysis of the results and an evaluation of the investigation.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

Biological Molecules

Level: Three
Credit Value: 3

Purpose and Aim

To enable the learner to understand the main biochemical features of carbohydrates, lipids, proteins, water and their biological importance and to be able to carry out basic food tests.

Learning Outcomes The learner will	**Assessment Criteria** The learner can
1. Understand the importance of water to life.	**1.1** Evaluate the properties of water that make it vital to animal and plant life.
2. Understand the structure of carbohydrates, fats and proteins.	**2.1** Describe both empirical and structural formulae of a range of food-related molecules and compounds. **2.2** Explain the structure of carbohydrates with **2.3** reference to complex food types **2.4** Explain the structure of proteins with reference to a complex food type Explain the structure of lipids with reference to complex food types **2.5** Interpret a range of bond types. **2.6** Distinguish between condensation and hydrolysis reactions.
3. Be able to determine the food components in food sources.	**3.1** Carry out biochemical food tests on a range of samples.

Learning Outcomes The learner will	Assessment Criteria The learner can
4. Understand the roles of vitamins and minerals in maintaining health.	**4.1** Summarise the role of a vitamin and a mineral in relation to the health of a named species.

Access to HE Grade Descriptors:

- 2 - Application of Knowledge
- 3 - Application of Skills
- 5 - Communication and Presentation
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

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Assessment Information:

Barred Combination with: The Chemistry of Living Things
AC2.1 include a minimum of two from each biological molecule. Could include:

- a-glucose
- maltose
- an amino acid
- a dipeptide
- a triglyceride

AC2.2, 2.3 and 2.4 To include a minimum of two from each biological molecule.
AC2.2, 2.3 and 2.4 Evidence must include sterols, bonding, reaction types, molecular structure.
AC2.5 To include covalent and ionic.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Cell Structure and Transport

Level: Three

Credit Value: 3

Purpose and Aim

To enable the learner to understand cell classification; structure and function of cellular organelles; structure of cell membranes; and the process of transport across a membrane.

Learning Outcomes The learner will	**Assessment Criteria** The learner can
1. Understand the structure and functions of cellular organelles.	**1.1** Explain the structure and function of cellular organelles.
2. Be able to identify cell classification and structure.	**2.1** Compare prokaryotic and eukaryotic cells. **2.2** Classify and draw cells viewed under a microscope.
3. Understand the structure of membranes.	**3.1** Explain the fluid mosaic model of membrane structure.
4. Understand the process of transport across a membrane.	**4.1** Explain a range of transport processes across cell membranes. **4.2** Apply Fick's Law to explain biological examples of diffusion.

Access to HE Grade Descriptors:

- 2 - Application of Knowledge
- 3 - Application of Skills
- 5 - Communication and Presentation
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

Unit Assessment Requirements are not prescribed. They remain as a **recommended** approach to assessment where they still reflect the unit specification.

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Assessment Information:

AC1.1 A minimum of four organelles.
AC2.2 A minimum of three cells.
AC4.1: Evidence must include an explanation of the process across biological cell membranes for:

- diffusion
- osmosis
- active transport

AC4.2 e.g. diffusion across alveoli.
If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.

Microbiology and Health

Level: Three
Credit Value: 6

Purpose and Aim

To enable the learner to understand the main features of cell ultrastructure and microorganisms; the characteristics of tissue types found in the human body; to be able to use a microscope and culture bacteria in the laboratory; to understand the natural defence mechanisms and principles of immunity; the spread of infection and the body's natural healing process.

Learning Outcomes The learner will	Assessment Criteria The learner can
1. Understand the main features of cell ultrastructure and of micro-organisms.	**1.1** Identify and state the function of organelles. **1.2** Summarise the characteristics of: bacteria viruses protozoa fungi.
2. Be able to use a compound microscope and culture bacteria in the laboratory.	**2.1** Calibrate a microscope and carry out microscopic measures. **2.2** Identify strains of bacteria using GRAM stain. **2.3** Practically investigate the effect of disinfectant and antibiotics on bacteria.
3. Understand natural defence mechanisms and the principles of immunity.	**3.1** Differentiate between active and passive immunity. **3.2** Summarise the mechanisms of: the first line of defence the non-specific immune response (second line of defence) the specific immune response (third line of defence) the process of healing. **3.3** Illustrate the nature of antibody/antigen reactions.
4. Understand how micro-organisms can be spread and the role of infection control within health care.	**4.1** Explain how infection can be spread and controlled. **4.2** Analyse how patients may acquire infection whilst in hospital. **4.3** Explain the role of infection prevention and control within health care settings.

Access to HE Grade Descriptors:

- 1 - Understanding of the Subject
- 2 - Application of Knowledge

- 3 - Application of Skills
- 4 - Use of Information
- 5 - Communication and Presentation
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

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Assessment Information:

AC1.1 A minimum of four organelle functions.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Enzymes

Level: Three
Credit Value: 3

Purpose and Aim

To enable the learner to understand the properties of enzymes; the nature of enzyme action and factors affecting that action; enzyme inhibition; to be able to investigate enzyme action practically and to use enzyme investigations to solve a problem.

Learning Outcomes	**Assessment Criteria**
The learner will	The learner can
1. Understand enzyme action.	**1.1** Explain the chemical nature of enzymes. **1.2** Compare models of enzyme action.

Learning Outcomes The learner will	Assessment Criteria The learner can
	1.3 Analyse data relating to enzyme action with use of competitive and non-competitive inhibitors
2. Be able to investigate enzyme action.	**2.1** Investigate the effect of a range of factors on enzyme activity temperature pH substrate enzyme concentration. **2.2** Summarise findings.
3. Be able to investigate enzyme activity.	**3.1** Design and evaluate an experiment to solve a practical problem using enzymes.

Access to HE Grade Descriptors:

- 2 - Application of Knowledge
- 3 - Application of Skills
- 5 - Communication and Presentation
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

Unit Assessment Requirements are not prescribed. They remain as a **recommended** approach to assessment where they still reflect the unit specification.
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Assessment Information:

AC 1.2 **models of enzyme action** must include:

- lock and key
- induced fit.

AC 2.1 Evidence must include:

- conducting the investigation
- tabulating and evaluating results.

AC 3.1 **the report** must include:

- designing and conducting the investigation
- presenting the results
- formulating a conclusion
- evaluation.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.

DNA, Polypeptide Synthesis and DNA Technology

Level: Three
Credit Value: 3

Purpose and Aim

To enable the learner to understand the structure and function of RNA and DNA and their role in protein creation, gene and chromosome mutations; triplet nature of the genetic code; the stages of transcription, activation and translation in relation to the roles of DNA and ribosomes; to be able to translate DNA and RNA codons; and the replication of DNA.

Learning Outcomes The learner will	**Assessment Criteria** The learner can
1. Know the structure and function of DNA and RNA.	**1.1** Explain the structure and function of DNA. **1.2** Explain how DNA replicates. **1.3** Explain the triplet nature of the genetic code. **1.4** Compare DNA with mRNA and tRNA.
2. Understand protein synthesis.	**2.1** Summarise the stages in protein synthesis.

Learning Outcomes The learner will	Assessment Criteria The learner can
3. Understand the principles of gene expression.	**3.1** Explain the role of transcription factors. **3.2** Explain the principles of alternate splicing. **3.3** Explain the principles of gene silencing.
4. Understand DNA based biotechnology techniques.	**4.1** Explain a range of DNA based techniques used in biotechnology. **4.2** Summarise the ethical, moral and social implications of gene modification.

Access to HE Grade Descriptors:

- 1 - Understanding of the Subject
- 4 - Use of Information
- 5 - Communication and Presentation
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

Unit Assessment Requirements are not prescribed. They remain as a **recommended** approach to assessment where they still reflect the unit specification.
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Assessment Information:

AC2.1 To include: Transcription, activation and translation with reference to the roles of DNA and ribosomes.
AC4.1 Evidence must include the process, application and outcomes of techniques for a minimum of two of the following:

- DNA hybridization
- Polymerase Chain Reaction (PCR) technology
- recombinant DNA technology
- genetic fingerprinting
- gene therapy.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.

Natural Selection

Level: Three
Credit Value: 3

Purpose and Aim

To enable the learner to understand the different theories of natural selection.

Learning Outcomes The learner will	**Assessment Criteria** The learner can
1. Understand natural selection.	**1.1** Explain natural selection. **1.2** Evaluate the evidence for the theory of evolution. **1.3** Evaluate models competing with the theory of evolution. **1.4** Explain how variation and mutation form the basis of natural selection.

Access to HE Grade Descriptors:

- 2 - Application of Knowledge
- 5 - Communication and Presentation
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

Unit Assessment Requirements are not prescribed. They remain as a **recommended** approach to assessment where they still reflect the unit specification.
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Assessment Information:

AC 1.2 With reference to the fossil record, comparative anatomy and comparative biochemistry
At least one competing model

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.

Cellular Processes (from AHE – Medicine)

Level: Three
Credit Value: 6

Purpose and Aim

To enable the learner to understand the biochemistry related to the utilisation of fuel molecules (respiration) and to understand how this fits into the life cycle of the cell, along with the importance of cell division to the life cycle.

Learning Outcomes The learner will	Assessment Criteria The learner can
1. Understand the role of energy carrier molecules within the cell.	**1.1** Explain the role of adenosine triphosphate (ATP) in energy transformations within the cell.
2. Understand the different stages of the cell cycle.	**2.1** Explain the biochemistry of aerobic respiration. **2.2** Relate the structure of the mitochondrion to its function.

Learning Outcomes The learner will	Assessment Criteria The learner can
	2.3 Explain the process of anaerobic respiration. **2.4** Compare anaerobic and aerobic pathways in terms of energy yield. **2.5** Explain how other respiratory substrates (such as triglycerides and proteins) may be used in aerobic respiration.
3. Understand why an increase in the rate of cellular respiration occurs during specific stages of the cell cycle.	**3.1** Explain what is meant by the term, “Cell Cycle”. **3.2** Distinguish between the different stages of interphase. **3.3** Explain the role of cell division in the cell cycle.
4. Understand the behaviour of chromosomes in both types of cell division; mitosis and meiosis.	**4.1** Explain mitosis and meiosis. **4.2** Compare chromosome behaviour in mitosis and meiosis. **4.3** Explain the significance of chromosome number in mitosis and meiosis. **4.4** Explain how meiosis brings about variation. **4.5** Explain the role of the cell cycle in the development of cancer and its treatment.
5. Be able to evidence meiosis and mitosis in a practical situation.	**5.1** Use a microscope to record observations of a root tip squash and a transverse section through human testes. **5.2** Record the different stages of mitosis in cells. **5.3** Record the different stages of meiosis in human cells.

Access to HE Grade Descriptors:

- 1 - Understanding of the Subject
- 2 - Application of Knowledge
- 3 - Application of Skills
- 4 - Use of Information
- 5 - Communication and Presentation
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

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Assessment Information:

AC2.1 Evidence must include reference to: glycolysis, link reaction, Krebs cycle and oxidative phosphorylation.
AC2.5 Evidence must include reference to how triglycerides and amino acids are used as respiratory substrates and at what positions they enter the metabolic pathway of aerobic respiration. Calculations of RQ (respiratory quotient) values should be included.
AC3.1 Evidence must include reference to G1, S and G2 phases of the cell cycle.
AC5.2 A minimum of three diagrams including labels and annotations.
AC5.3 A minimum of three diagrams including labels and annotations.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Cells and Molecules (from AHE – Medicine)

Level: Three
Credit Value: 6

Purpose and Aim

To enable students to understand the basic principles essential to the further study of biology at level 3. Students completing this unit should be able to describe the basic structure of cells, have an understanding of the role of some important biological molecules and appreciate the levels of organisation seen in organisms.

Learning Outcomes The learner will	Assessment Criteria The learner can
1. Understand the importance of water in biological systems.	**1.1** Describe the structure of water. **1.2** Assess the structure of water in relation to its function in biological systems.
2. Understand the structure and function of biological molecules.	**2.1** Summarise the structures and properties of: carbohydrates lipids amino acids and proteins. **2.2** Relate the structure of the molecules in 2.1 to their role or function within a living biological system.
3. Understand the structure and function of eukaryotic cells.	**3.1** Summarise the structure and functions of named cell organelles. **3.2** Compare and contrast the different transport mechanism used to move materials across cell membranes.
4. Understand the levels of organisation observed in organisms.	**4.1** Describe the aggregation of cells into tissues and tissues into organs. **4.2** Explain the organisation of cells within living systems. **4.3** Compare the cellular level structures of eukaryotes, prokaryotes and viruses.

Access to HE Grade Descriptors:

- 1 - Understanding of the Subject
- 2 - Application of Knowledge
- 3 - Application of Skills
- 5 - Communication and Presentation
- 7 - Quality

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Assessment Methods:

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Assessment Information:

AC2.1 To include the structure of monosaccharides (triose, pentose, hexose sugars); disaccharides (sucrose, lactose, maltose) and polysaccharides (starch, glycogen, cellulose and chitin).
AC2.2 To include triglycerides and phospholipids.
AC2.5 To include examples of fibrous and globular proteins.
AC3.1 To include: mitochondria, endoplasmic reticulum (rough and smooth), ribosomes, Golgi body, lysosomes, centrioles, chloroplasts, vacuoles, nucleus, chromatin, nuclear envelope, nucleolous, plasmodesmata and cell membrane.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Structural Systems of the Human Body (from AHE – Medicine)

Level: Three
Credit Value: 3

Purpose and Aim

To develop an understanding of the structure, function of the integumentary, skeletal and muscular systems of the human body and their interrelationship with other systems of the body.

Learning Outcomes The learner will	Assessment Criteria The learner can
1. Understand the gross anatomy and function of the integumentary system.	**1.1** Describe the structure of the major components of the integumentary system. **1.2** Explain the functions of the components of the integumentary system. **1.3** Describe the correlation between the integumentary system and other body systems.

Learning Outcomes The learner will	Assessment Criteria The learner can
	1.4 Describe the causes, symptoms, diagnosis and treatment of conditions that affect the skin.
2. Understand the gross anatomy and function of the skeletal system.	**2.1** Describe the structure of the skeletal system. **2.2** Explain the functions of the skeletal system. **2.3** Identify the correlation between the skeletal system and other body systems. **2.4** Describe the causes, symptoms, diagnosis and treatment of conditions that affect the skeletal systems.
3. Understand the gross anatomy and function of the muscular system.	**3.1** Describe the muscular system of the body. **3.2** Compare cardiac, smooth and skeletal muscle and state their function. **3.3** Outline the principles of muscular movement.

Access to HE Grade Descriptors:

- 1 - Understanding of the Subject
- 2 - Application of Knowledge
- 3 - Application of Skills
- 4 - Use of Information
- 5 - Communication and Presentation
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

Unit Assessment Requirements are not prescribed. They remain as a **recommended** approach to assessment where they still reflect the unit specification.
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Assessment Information:

AC1.1 To include:

- epidermis

- dermis
- hypodermis
- associated glands
- hair
- nails.

AC1.2 To include:

- thermoregulation
- sensory perception.

AC1.3 A minimum of two body systems, one of which must be the circulatory system.
AC1.4 A minimum of four.
AC2.1 To include:

- bones (including different joint types)
- connective tissue (including cartilage, tendons and ligaments.

AC2.2 To include reference to:

- organ protection
- movement
- blood cells
- minerals and nutrients.

AC2.3 A minimum of two body systems.
AC2.4 A minimum of four conditions.
If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Human Processes (from AHE – Medicine)

Level: Three
Credit Value: 3

Purpose and Aim

To develop an understanding of the structure, function of the digestive, circulatory, respiratory and lymphatic systems of the human body and conditions that may affect these systems.

Learning Outcomes The learner will	Assessment Criteria The learner can
1. Understand the gross anatomy and function of the digestive system of the human body.	**1.1** Describe the dietary requirements of the human body. **1.2** Describe the structure of the digestive system. **1.3** Discuss the functions of the digestive system and its component parts, including accessory organs. **1.4** Compare chemical and mechanical digestion. **1.5** Describe the processes of digestion and absorption and identify the properties of the alimentary canal that contribute to its efficiency. **1.6** Describe the causes, symptoms, diagnosis and treatment of conditions that affect the digestive system.
2. Understand the gross anatomy of the circulatory system of the human body.	**2.1** Describe the circulatory system. **2.2** Explain the functions of the circulatory system and its component parts. **2.3** Describe the causes, symptoms, diagnosis and treatment of conditions that affect the circulatory system.
3. Understand the gross anatomy and function of the respiratory system of the human body.	**3.1** Describe the respiratory system of the human body and the structure of its component parts. **3.2** Explain the functions of the respiratory system and its component parts. **3.3** Compare the gaseous content of inhaled and exhaled air. **3.4** Describe the causes, symptoms, diagnosis and treatment of conditions that affect the respiratory system.
4. Understand the lymphatic system of the human body.	**4.1** Describe the lymphatic system of the human body. **4.2** Describe the function of the components of the lymphatic system. **4.3** Describe the interaction between the lymphatic system and other systems of the human body**.**

Access to HE Grade Descriptors:

- 1 - Understanding of the Subject
- 4 - Use of Information
- 5 - Communication and Presentation
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

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Assessment Information:

AC1.2 To include the:

- pharynx and oesophagus
- stomach
- small intestine
- colon.

AC1.4 To include reference to:

- enzymes
- bile.

AC1.6 A minimum of two conditions.
AC2.1 To include:

- heart
- blood vessels
- blood.

AC2.4 A minimum of two conditions.
AC3.2 To include:

- gas exchange
- sound production.

AC3.5 A minimum of two conditions.
AC4.2 To include:

- lymph
- lymphatic vessels
- lymphatic organs.

There is no specific assessment information to be used with this unit.
If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Chemistry

The Chemistry of Living Cells

Level: Three
Credit Value: 3

Purpose and Aim

To enable the learner to understand the main biochemical features of carbohydrates, lipids, proteins, nucleic acids and their biological importance; the process of protein synthesis; and to be able to carry out basic food tests.

Learning Outcomes The learner will	**Assessment Criteria** The learner can
1. Understand the biochemistry of carbohydrates, lipids and proteins.	**1.1** Express carbohydrates, lipids and proteins as molecular structure. **1.2** Express chemical reactions in words and symbols. **1.3** Explain the function of carbohydrates, lipids, triglycerides, sterols and proteins in: cell chemistry physiological processes.
2. Understand the process of protein synthesis.	**2.1** Summarise the process of protein synthesis. **2.2** Analyse protein synthesis within organisms.
3. Understand the structure and function of nucleic acids.	**3.1** Relate the structure of nucleic acids to protein synthesis. **3.2** Explain the chemical and biological functions of nucleic acids.

Learning Outcomes The learner will	Assessment Criteria The learner can
4. Be able to determine the composition of biological samples.	**4.1** Analyse biological samples to identify their composition.

Access to HE Grade Descriptors:

- 2 - Application of Knowledge
- 3 - Application of Skills
- 5 - Communication and Presentation
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

Unit Assessment Requirements are not prescribed. They remain as a **recommended** approach to assessment where they still reflect the unit specification.
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Assessment Information:

Barred combinations with:

- Energy transfer within Cells
- Biological Molecules
- DNA, Polypeptide Synthesis and DNA Technology
- The Digestive System and Nutrition.

AC1.3 A minimum of one physiological process and cell chemistry for each biological molecule must be given.
AC2.2 A minimum of two organisms must be given.
AC4.1 At least three biological samples.
If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.

The Periodic Table and Redox Reactions

Level: Three
Credit Value: 3

Purpose and Aim

To enable the learner to understand the nature of the periodic table, periodicity in terms of the physical properties of elements, the concept of the oxidation number, and reactions with reference to groups 2 and 7.

Learning Outcomes The learner will	**Assessment Criteria** The learner can
1. Understand the structure of the periodic table in term groups and periods.	**1.1** Describe the periodic table in terms of the arrangement of elements: by increasing atomic number in periods showing repeating trends in physical and chemical properties in groups having similar physical and chemical properties
2. Understand periodicity in terms of the physical properties of the elements.	**2.1** Interpret the variation of the first ionisation energies of elements: across a period down a group. **2.2** Interpret data and describe variation in a range of physical properties in elements.
3. Understand the concept of oxidation number.	**3.1** Apply the rules for assigning oxidation number to atoms in elements, compound and ions. **3.2** Describe the terms oxidation and reduction in terms of: electron transfer changes in oxidation number **3.3** Construct formulae using oxidation number.

Learning Outcomes The learner will	Assessment Criteria The learner can
4. Understand redox reactions with reference to Group 2 and Group 7 elements.	**4.1** Explain a range of redox reactions for Group 2 and 7 elements using both electron transfer and oxidation numbers.
5. Understand the reactions of Group 2 and Group 7 elements.	**5.1** Explain the trend in reactivity of Group 2 and Group 7 elements down the group in terms of ease of forming ions, atomic size, shielding and nuclear charge. **5.2** Describe the action of water on oxides of Group 2. **5.3** State the range of pH values of any resulting solutions. **5.4** Explain commercial uses involving the reactions of calcium hydroxide ($Ca(OH)_2$) and magnesium hydroxide ($Mg(OH)_2$). **5.5** Describe the term 'disproportionation' in terms of oxidation and reduction.

Access to HE Grade Descriptors:

- 1 - Understanding of the Subject
- 2 - Application of Knowledge
- 5 - Communication and Presentation
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

Unit Assessment Requirements are not prescribed. They remain as a **recommended** approach to assessment where they still reflect the unit specification.

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Assessment Information:

AC2.2 Electron configurations, atomic radii, first ionisation energies, melting point and boiling points to demonstrate periodicity.

AC3.3 A minimum of three examples.

AC4.1 May include reactions with hydrochloric and sulphuric acid.

AC5.4 To include at least one example of each.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.

Energetics, Kinetics and Equilibria Chemistry

Level: Three
Credit Value: 3

Purpose and Aim

To enable the learner to understand enthalpy changes and reaction rates, dynamic equilibrium, electrochemistry, and the differences between oxidation and reduction.

Learning Outcomes The learner will	**Assessment Criteria** The learner can
1. Understand enthalpy changes.	**1.1** Produce energy profiles for exothermic and endothermic reactions. **1.2** Perform enthalpy calculations.
2. Understand reaction rates.	**2.1** State the main factors which affect reaction rates. **2.2** Identify order of reaction from data given.
3. Understand dynamic equilibrium.	**3.1** Apply Le Chatelier's principle to identify most favorable conditions for yields in named industrial processes. **3.2** Describe solubility in terms of an equilibrium. **3.3** Define Kc and use it to discuss position of equilibrium. **3.4** Explain weak acidity and Ka. **3.5** Calculate pH for strong and weak acids and alkalis.

Learning Outcomes The learner will	Assessment Criteria The learner can
4. Understand electrochemistry.	**4.1** Define 'electrode potential'. **4.2** Find the electromotive force (EMF) of an electrochemical cell from electrode potentials.

Access to HE Grade Descriptors:

- 2 - Application of Knowledge
- 5 - Communication and Presentation
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

Unit Assessment Requirements are not prescribed. They remain as a **recommended** approach to assessment where they still reflect the unit specification.
From September 2021, centre devised assessments are permitted for all units on all Agored Cymru Access to HE Diplomas.
All assessment evidence completed As part Of an Agored Cymru Access To HE Diploma Is subject To external moderation. And catalys
Unit assessment requirements are no longer prescriptive. They are recommended assessment plans. Centres can devise their own assessment plan for this unit.

Assessment Information:

AC 2.1 In terms of temperature, pressure, concertation and catalysis.

AC3.1 e.g. Haber, contact process.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.

Proportions by which Chemicals React

Level: Three
Credit Value: 3

Purpose and Aim

To enable the learner to understand the atomic scale of mass; and to be able to construct chemical formulae and equations; and to be able to complete molar and reactant and product mass calculations.

Learning Outcomes The learner will	**Assessment Criteria** The learner can
1. Understand the atomic scale of mass for atoms and molecules and the mole concept.	**1.1** Calculate relative formula masses from relative atomic masses. **1.2** Calculate mole quantities from relative atomic and relative formula masses.
2. Be able to construct chemical formulae given appropriate data.	**2.1** Write chemical formulae (ionic and molecular) for simple compounds.
3. Be able to construct balanced equations given appropriate data.	**3.1** Use chemical formulae to show reactions as balanced equations.
4. Be able to calculate reactant and product masses from equations.	**4.1** Perform calculations to determine reactant and product masses from balanced equations.
5. Be able to complete molar calculations.	**5.1** Perform a range of molar calculations from balanced equations including solutions.

Access to HE Grade Descriptors:

- 2 - Application of Knowledge
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

Unit Assessment Requirements are not prescribed. They remain as a **recommended** approach to assessment where they still reflect the unit specification.

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Agored Cymru Access to HE Diplomas.
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Assessment Information:

AC1.1 A minimum of three to be calculated.
AC1.2 A minimum of three to be calculated.
AC2.1 A minimum of three to be calculated.
AC3.1 A minimum of three different types of reactions to be included.
AC4.1 A minimum of three to be calculated.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.

Atomic Structure and Bonding

Level: Three
Credit Value: 3

Purpose and Aim

To enable the learner to understand atomic structure, quantum levels and sublevels; the relationship between electronic structure, the periodic table and valency; bonding variables and general properties of ionic and covalent compounds.

Learning Outcomes The learner will	**Assessment Criteria** The learner can
1. Understand the fundamental particles involved in atomic structure.	**1.1** Define the terms used in atomic and electronic theory. **1.2** **1.2** Define the terms:

Learning Outcomes The learner will	Assessment Criteria The learner can
	atom ion molecule isotope
2. Know the principal quantum levels and sublevels (s, p and d) and the distribution of electrons in atoms up to atomic number thirty six.	**2.1** Deduce electronic structures from atomic numbers to determine electronic structures in terms of s,p,d configurations **2.2** Determine the position of an element in the periodic table from the electronic structure.
3. Understand the relationship between electronic structure, the periodic table and valency.	**3.1** Determine formulae of simple ions from atomic number.
4. Understand ionic, covalent, intermolecular and metallic bonding.	**4.1** predict bonding types from physical properties. **4.2** Describe the different types of bonding and attraction.

Access to HE Grade Descriptors:

- 1 - Understanding of the Subject
- 2 - Application of Knowledge
- 5 - Communication and Presentation
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

Unit Assessment Requirements are not prescribed. They remain as a **recommended** approach to assessment where they still reflect the unit specification.

From September 2021, centre devised assessments are permitted for all units on all Agored Cymru Access to HE Diplomas.

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Assessment Information:

AC1.1 a minimum of three explanations for atomic theory and three for electronic theories from:

- atomic number
- atomic mass number
- periodic table
- principal quantum number
- sub level
- Hund's rule
- The Pauli exclusion principle.

AC2.1 This should include elements from a minimum of five different groups of the periodic table.
AC4.2 The descriptions of the formation of bonding types should be supported by a diagram to include

- ionic
- covalent
- Van der Waals forces and Hydrogen bonding metallic bonding.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.

Organic Chemistry - Hydrocarbons, Alcohols and Acids

Level: Three
Credit Value: 3

Purpose and Aim

To enable the learner to understand the properties of hydrocarbons; the reactions of alcohols and carbonyl compounds; and the properties of carboxylic acids.

Learning Outcomes The learner will	Assessment Criteria The learner can
1. Understand the properties of hydrocarbons.	**1.1** Define the terms homologous series and functional groups. **1.2** Name hydrocarbons of up to eight carbon atoms. **1.3** Construct formulae and structure of alkenes, including geometrical isomers. **1.4** Describe the structure of benzene and evaluate the experimental evidence for this. **1.5** Compare chemical properties of alkanes, alkenes and benzene. **1.6** Describe trends in physical properties of hydrocarbons within a homologous series.
2. Understand the main reactions of alcohols.	**2.1** Name alcohols of up to five carbon atoms. **2.2** Describe oxidation and esterification reactions of alcohols.
3. Understand the preparation and reactions of carbonyl compounds.	**3.1** Describe addition, oxidation and reduction reactions of carbonyl compounds.
4. Understand the properties of carboxylic acids.	**4.1** Describe acid base reactions of carboxylic acids.

Access to HE Grade Descriptors:

- 1 - Understanding of the Subject
- 5 - Communication and Presentation
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

Unit Assessment Requirements are not prescribed. They remain as a **recommended** approach to assessment where they still reflect the unit specification.
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Assessment Information:

AC1.2 A minimum of three hydrocarbons.
AC1.3 A minimum of three formulae.
AC2.1 Must be IUPAC name - a minimum of three alcohols.
AC2.2 To include the chemical equation of the reaction.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.

Analytical Procedures in Chemistry

Level: Three
Credit Value: 3

Purpose and Aim

To enable the learner to understand how to select and use a range of basic and analytical laboratory equipment, and to understand the principles and techniques of a range of analytical techniques.

Learning Outcomes The learner will	**Assessment Criteria** The learner can
1. Be able to select and use laboratory equipment.	**1.1** Given a variety of pieces of equipment, select the most appropriate for the task in hand. **1.2** Demonstrate safe use of laboratory equipment in a range of situations in accordance with COSHH regulations.
2. Be able to use accurately a range of basic analytical equipment.	**2.1** Demonstrate the variability in accuracy of a range of laboratory glassware.

Learning Outcomes The learner will	Assessment Criteria The learner can
	2.2 Explain how the correct use of equipment can minimise experimental error.
3. Understand the principles and techniques of a range of chromatographic techniques.	**3.1** Explain the principles of paper and thin layer chromatography. **3.2** Explain the principles of gas chromatography. **3.3** Interpret chromatograms and graphical plots.
4. Understand the principles of colorimetric and spectrophotometric analysis.	**4.1** Describe the electromagnetic spectrum and distinguish between forms of radiation in terms of wavelength and frequency. **4.2** Compare the operation and principles of a colorimeter and spectrophotometer. **4.3** Use infrared spectrometer output to identify the presence of organic functional groups.
5. Be able to use basic titration techniques.	**5.1** Set up and use titration apparatus. **5.2** Accurately determine the molar concentration of a substance using a standard solution. **5.3** Produce a balanced equation for the titration in AC5.2'. Balancing equations is covered in Proportions by which Chemicals React.
6. Be able to use flame tests and chemical tests for qualitative analysis.	**6.1** Demonstrate the use of flame and chemical tests to identify a range of Irons in compounds.

Access to HE Grade Descriptors:

- 2 - Application of Knowledge
- 3 - Application of Skills
- 4 - Use of Information
- 5 - Communication and Presentation
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

Unit Assessment Requirements are not prescribed. They remain as a **recommended** approach to assessment where they still reflect the unit

specification.
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Assessment Information:

AC3.1 To include reference to partition.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.

Medicinal Chemistry

Level: Three
Credit Value: 6

Purpose and Aim

To provide the learner understanding of medicinal chemistry.

Learning Outcomes The learner will	**Assessment Criteria** The learner can
1. Understand the basics of drug discovery, design and development.	**1.1** Summarise the discovery of pharmaceutical drugs. **1.2** Describe drug target optimisation strategies. **1.3** Describe the process of drug design and development, including modern tools used.
2. Understand the classification of pharmaceutical drugs.	**2.1** Differentiate how pharmaceutical drugs are classified based on mechanism of action, physiologic effect and chemical structure.

Learning Outcomes The learner will	Assessment Criteria The learner can
	2.2 Summarise the purpose of drug classification.
3. Understand the chemical structure, properties and activities of pharmaceutical drugs.	**3.1** Differentiate the chemical structure elements and properties of drugs. **3.2** Illustrate the nature of drug activity.
4. Understand how drugs elicit a response in living systems and the interactions between drugs.	**4.1** Explain how drugs should cause a specific response in living systems. **4.2** Evaluate adverse drug reactions and interactions between drugs.

Access to HE Grade Descriptors:

- 1 - Understanding of the Subject
- 2 - Application of Knowledge
- 5 - Communication and Presentation
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

Unit Assessment Requirements are not prescribed. They remain as a **recommended** approach to assessment where they still reflect the unit specification.
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Assessment Information:

AC1.1, 1.2, 1.3 and 3.1 Summarising and describing the discovery, development, chemical properties and activity of a pharmaceutical drug of learner's choice.
AC2.1 and 2.2 Summarise the purpose of drug classification by using and explaining a specific example of a classification system (e.g., comprehensive systems, chemical class, mode of action, mechanism of action, therapeutic class).
AC3.2 To include a minimum of three drugs.
AC 4.1 To include a minimum of four examples (e.g., antibacterial, antiviral, anticancer, analgesics, cholinergics).

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.

Concepts of Carbon, Redox and Acid/Base Chemistry

Level: Three
Credit Value: 3

Purpose and Aim

To enable the learner to understand the nature of carbon and its compounds; the oxidation, reduction and redox reactions; and the nature of acids and bases.

Learning Outcomes The learner will	**Assessment Criteria** The learner can
1. Understand the chemical and physical nature of carbon and its compounds.	**1.1** Describe the ways in which carbon can combine with itself and other elements to produce a range of compounds.
2. Understand oxidation, reduction and redox reactions.	**2.1** Describe the processes of oxidation and reduction. **2.2** Describe redox processes in a range of situations.
3. Understand the nature of acids and bases and the reaction between them.	**3.1** Describe the properties and behaviour of acids and bases and their reactions.

Access to HE Grade Descriptors:

- 1 - Understanding of the Subject
- 2 - Application of Knowledge
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

Unit Assessment Requirements are not prescribed. They remain as a **recommended** approach to assessment where they still reflect the unit specification.
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Assessment Information:

AC1.1 A minimum of six ways.
AC2.1 e.g. in terms of loss or gain of hydrogen/oxygen, loss or gain of electrons and change in oxidation number.
AC2.2 A minimum of four named situations.
AC3.1 Using relevant ionic equations.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.

Counselling

Using Reflection

Level: Three
Credit Value: 3

Purpose and Aim

To assess learners' knowledge and practice of reflection.

Learning Outcomes The learner will	Assessment Criteria The learner can
1. Understand reflection.	**1.1** Explain the purpose of reflection. **1.2** Analyse models of reflection utilised within a specific profession.

Learning Outcomes The learner will	Assessment Criteria The learner can
2. Be able to use a model of reflection.	**2.1** Apply a **model of reflection to reflect on own experience over time**.

Access to HE Grade Descriptors:

- 2 - Application of Knowledge
- 5 - Communication and Presentation
- 7 – Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

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Assessment Information:

AC1.2 A minimum of two models .
AC2.1 A given or chosen context that relates to the learner's own work, life and/or learningThe evidence will include reflection over a minimum of 6 months and:

- analysis of the experience
- integration of theoretical knowledge about the issue or experience
- identification of alternative outcomes
- evaluation to identify personal learning.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.

Understanding Counselling

Level: Three
Credit Value: 6

Purpose and Aim

To assess learners' knowledge of the theoretical basis for counselling.

Learning Outcomes The learner will	Assessment Criteria The learner can
1. Know what is meant by counselling.	**1.1** Define counselling. **1.2** Explain the differences between counselling and other helping interventions.
2. Understand ethical practice in counselling.	**2.1** Explain ethical practice in counselling.
3. Understand person centred counselling.	**3.1** Explain the role of Maslow's hierarchy of needs in person centred counselling. **3.2** Analyse the person-centred counselling approach **3.3** Explain the role of the counsellor in person centred counselling. **3.4** Explain the techniques used in person centred counselling.
4. Understand a skilled helper model of counselling.	**4.1** Analyse a skilled helper model of counselling. **4.2** Explain how individuals are supported with goal setting in the skilled helper model. .
5. Understand a cognitive behavioural model of counselling.	**5.1** Analyse a cognitive behavioural model of counselling. **5.2** Explain how goals are formulated to support individuals with: negative thought patterns irrational beliefs.

Access to HE Grade Descriptors:

- 1 - Understanding of the Subject
- 2 - Application of Knowledge
- 4 - Use of Information
- 5 - Communication and Presentation
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

Unit Assessment Requirements are not prescribed. They remain as a **recommended** approach to assessment where they still reflect the unit specification.
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Assessment Information:

AC3.2 Analysis of the person centred approach should include Rogers' core conditions.

AC3.4 A minimum of two techniques must be evidenced.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

Assessors must have current knowledge of counselling practice.

Counselling Skills - Practice

Level: Three
Credit Value: 3

GLH:
Last registration date:

Purpose and Aim

To develop the knowledge and skills of learners in counselling in simulated settings only.

Learning Outcomes	**Assessment Criteria**
The learner will	The learner can
1. Be able to use non verbal behaviour in counselling.	**1.1** Explain what is meant by **non verbal behaviour.**

Learning Outcomes The learner will	Assessment Criteria The learner can
	1.2 Assess non verbal behaviour in a simulated setting. **1.3** Give and receive feedback about the assessment of non verbal behaviour in a simulated counselling setting.
2. Be able to use communication skills in counselling.	**2.1** Explain the skills used in **active listening.** **2.2** Use active listening skills in a simulated counselling setting. **2.3** Give and receive feedback about the use of active listening in a simulated counselling setting.
3. Understand the role of professional bodies in counselling.	**3.1** Outline the current requirements for practicing as a counsellor in the UK. **3.2** Outline the guidelines from professional bodies in counselling which protect: the client the counsellor.

Access to HE Grade Descriptors:

- 2 - Application of Knowledge
- 5 - Communication and Presentation
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

- Practice file

Unit Assessment Requirements are not prescribed. They remain as a **recommended** approach to assessment where they still reflect the unit specification.
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Assessment Information:

Non verbal behaviour must include:

- kinesics (eg. posture, gesture, clothing)
- voice
- touch
- distance.

Active listening must include:

- paraphrasing
- reflection
- summarising
- questioning
- probing
- focusing.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

Assessors of this unit must be occupationally competent in counselling.

Environmental Science

Environmental Chemistry

Level: Three
Credit Value: 3

Purpose and Aim

To enable the learner to understand the function of the carbon and nitrogen cycles; to evaluate the processes which produce undesirable atmospheric changes; the social and economic consequences of atmospheric pollution; and to formulate arguments for continued expansion of recycling programmes.

Learning Outcomes The learner will	Assessment Criteria The learner can
1. Understand the function of the carbon cycle.	**1.1** Describe the natural carbon cycle. **1.2** Analyse the effect of human intervention with the carbon cycle.
2. Understand the function of the nitrogen cycle.	**2.1** Describe the nitrogen cycle.

Learning Outcomes The learner will	Assessment Criteria The learner can
	2.2 Analyse the effect of human intervention with the nitrogen cycle.
	3.1 Evaluate the factors which adversely change the atmosphere including.: Air pollution Global warming Distinction of the ozone layer
3. Understand the factors which produce undesirable atmospheric changes.	**3.2** Explain natural processes and human activities that produce air pollution.
	3.3 Assess how the processes and activities in 3.2 may lead to climate change and/or destruction of the ozone layer.
	4.1 Collect and collate evidence to investigate whether pollution of the air is producing climatic changes.
4. Understand the economic and social consequences of pollution of the environment.	**4.2** Analyse the economic and social consequences of air pollution.
5. Be able to formulate arguments for the continued expansion of recycling programmes.	**5.1** Collect and collate information in support of recycling domestic waste.

Access to HE Grade Descriptors:

- 2 - Application of Knowledge
- 4 - Use of Information
- 5 - Communication and Presentation
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

Unit Assessment Requirements are not prescribed. They remain as a **recommended** approach to assessment where they still reflect the unit specification.

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Assessment Information:

AC 3.2 Minimum of 2 processes and 2 activities
AC 5.1 to include aluminium, glass, steel and plastics.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.

Energy, the Atmosphere and Hydrosphere

Level: Three
Credit Value: 6

Purpose and Aim

To enable the learner to understand the interconnections between the atmosphere, hydrosphere and biosphere, global climate and living organisms; solar radiation and fusion; the hydrological and carbon cycles; water use and conservation.

Learning Outcomes The learner will	Assessment Criteria The learner can
1. Understand the interconnections between the atmosphere, hydrosphere and biosphere.	**1.1** State the relative proportions of atmospheric gases and planetary water sources. **1.2** Explain the importance of the atmosphere as a life support system. **1.3** Describe how temperature varies with altitude within the vertical structure of the atmosphere.
2. Understand solar radiation and solar fusion.	**2.1** Analyse the wave nature of electromagnetic radiation and the electromagnetic spectrum. **2.2** Explain the significance of the albedo effect for the biosphere.
3. Understand the hydrological cycle.	**3.1** Explain the mechanisms that underpin the hydrological cycle.
4. Understand the carbon cycle.	**4.1** Explain the processes involved in carbon exchange between and within the atmosphere, hydrosphere, lithosphere and biosphere.
5. Understand the greenhouse effect and climate change.	**5.1** Evaluate the role of the gases in the atmosphere in maintaining the heat balance and global climate of the earth.
6. Understand the implications of ultraviolet light absorption and ozone depletion.	**6.1** Explain the effects of ionising radiation on the gases in the atmosphere and on living organisms.
7. Understand the consequences of overuse of global water resources and related conservation methods.	**7.1** Evaluate the environmental effects of over-abstraction of water resources. **7.2**

Access to HE Grade Descriptors:

- 1 - Understanding of the Subject
- 2 - Application of Knowledge
- 5 - Communication and Presentation
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

Unit Assessment Requirements are not prescribed. They remain as a **recommended** approach to assessment where they still reflect the unit specification.
From September 2021, centre devised assessments are permitted for all units on all Agored Cymru Access to HE Diplomas.
All assessment evidence completed As part Of an Agored Cymru Access To HE Diploma Is subject To external moderation.

Assessment Information:

AC 2.1 to include its wavelength characteristics and environmental importance.
AC 3.1 to include the energy source driving the cycle.
AC 7.1 A minimum of three environmental effects.
AC 7.2 A minimum of three methods.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Ecosystems and Ecology

Level: Three
Credit Value: 6

Purpose and Aim

To enable the learner to understand ecosystems, the factors that affect them, and how to carry out ecological surveys.

Learning Outcomes The learner will	Assessment Criteria The learner can
1. Understand the role of ecosystems.	**1.1** Define the term 'ecosystem'.

Learning Outcomes The learner will	Assessment Criteria The learner can
	1.2 Explain interactions between different types of global ecosystem.
	2.1 Explain the difference between a food chain and food web.
	2.2 Explain how numbers of organisms, biomass and energy flow can be represented in the form of a pyramid that shows the trophic levels.
2. Understand the concept of trophic levels and the relationships that occur between them.	**2.3** Explain the significance of the pyramid of numbers, biomass and energy and the efficiency of energy conversion within a named food chain.
3. Understand the importance of non human and non climatic factors that can affect ecosystem stability.	**3.1** Evaluate the role of predators, saprophytes and the diversity of species in maintaining ecosystem stability.
4. Understand how the activities of humans can affect ecosystems.	**4.1** Evaluate ways in which a human activity could affect an ecosystem.
	5.1 Describe the term 'ecology'.
	5.2 Describe each of the following giving a suitable example: community, habitat, niche and competition.
5. Understand ecology.	**5.3** Examine how the principles of ecology are associated with community, habitat, niche and competition.
	6.1 Describe the method by which an ecological survey of a particular habitat could be made.
6. Be able to perform an ecological survey.	**6.2** Use an appropriate method to perform a detailed investigation of a particular habitat.

Access to HE Grade Descriptors:

- 1 - Understanding of the Subject
- 3 - Application of Skills

- 5 - Communication and Presentation
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

Unit Assessment Requirements are not prescribed. They remain as a **recommended** approach to assessment where they still reflect the unit specification.
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Assessment Information:

AC 1.2 A minimum of three examples.
AC 2.1 Using suitable examples.
AC 3.1 With reference to suitable examples.
AC 4.1 A minimum of three ways in which human activity impacts.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Practical Ecology

Level: Three
Credit Value: 3

Purpose and Aim

To enable the learner to understand and use the language of practical ecology and ecosystems; the effects of biotic and abiotic factors on habitats; the characteristics and estimation of population growth and changes; and the investigation of selected habitats.

Learning Outcomes The learner will	Assessment Criteria The learner can
1. Be able to use the terminology related to the study of ecosystems.	**1.1** Interpret data on selected complex communities in terms of food webs pyramids of number, biomass, energy.
2. Be able to collect and interpret data collected from complex field situations.	**2.1** Obtain data from the use of equipment in complex field situations. **2.2** Interpret data from the use of equipment in complex field situations in 2.1.
3. Understand the characteristics of population growth and changes within populations.	**3.1** Analyse data relating to population growth and predator-prey relationships. **3.2** Explain the outcomes of 3.1 in terms of ecological principles.
4. Be able to estimate population size using sampling methods.	**4.1** Obtain data from the use of selected sampling methods and equipment. **4.2** Use the data collected to calculate an estimate of population size for a selected species.
5. Be able to identify and classify organisms using keys	**5.1** Use keys to identify flora of a specific habitat to species level. **5.2** Use keys to identify fauna of a specific habitat to species level.
6. Understand the distribution of organisms in complex habitats.	**6.1** Explain the distribution of organisms in a range of complex habitats.

Access to HE Grade Descriptors:

- 2 - Application of Knowledge
- 3 - Application of Skills
- 4 - Use of Information
- 5 - Communication and Presentation
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

Unit Assessment Requirements are not prescribed. They remain as a **recommended** approach to assessment where they still reflect the unit specification.
From September 2021, centre devised assessments are permitted for all units on all Agored Cymru Access to HE Diplomas.
All assessment evidence completed As part Of an Agored Cymru Access To HE Diploma Is subject To external moderation.

Assessment Information:

AC 1.1 A minimum of two complex communities.
AC 2.1 and 2.2 A minimum of two complex field situations.
AC 4.1 A minimum of three sampling techniques.
AC 5.1 A minimum of five species of flora
AC 5.2 A minimum of five species of fauna
AC 6.1 A minimum of two habitats.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.

Forensic Science

Investigative Procedures

Level: Three
Credit Value: 3

Learning Outcomes The learner will	Assessment Criteria The learner can
1. Understand the processes of a criminal investigation.	**1.1** Explain the processes in a criminal investigation. **1.2** Evaluate the difference between a major and a minor investigation.
2. Know the police powers in a criminal investigation.	**2.1** Apply the powers of search to a simulated crime investigation. **2.2** Evaluate the balancing of the rights of the individual and the need for investigative powers.
3. Know the value of investigative sources to a criminal investigation.	**3.1** Assess the usefulness of a **range** of sources of information available to an investigator during a criminal investigation.

Access to HE Grade Descriptors:

- 2 - Application of Knowledge
- 4 - Use of Information
- 5 - Communication and Presentation
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

Unit Assessment Requirements are not prescribed. They remain as a **recommended** approach to assessment where they still reflect the unit specification.
From September 2021, centre devised assessments are permitted for all units on all Agored Cymru Access to HE Diplomas.
All assessment evidence completed As part Of an Agored Cymru Access To HE Diploma Is subject To external moderation.

Assessment Information:

AC 3.1 Minimum of three e.g. CCTV, witnesses, intelligence sources PNC and forensic evidence.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.

Analysis of Physical Evidence

Level: Three
Credit Value: 3

Purpose and Aim

To enable the learner to understand how to gather and analyse marks and trace evidence from a simulated crime scene, and to understand the principles of blood spatter analysis.

Learning Outcomes The learner will	Assessment Criteria The learner can
1. Be able to gather and analyse marks from a simulated crime scene.	**1.1** Explain the scientific principles of fingerprint evidence. **1.2** Recover latent fingerprints. **1.3** Explain the procedures for collection and analysis of footwear impression. **1.4** Collect footwear impressions.
2. Be able to gather and analyse trace evidence from a crime scene.	**2.1** Explain the scientific principles of fibre evidence. **2.2** Carry out examination of glass samples from a crime scene and analyse results.

Learning Outcomes The learner will	Assessment Criteria The learner can
3. Understand the principles of blood splatter analysis.	**3.1** Explain the scientific principles of blood splatter analysis.

Access to HE Grade Descriptors:

- 2 - Application of Knowledge
- 3 - Application of Skills
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

Unit Assessment Requirements are not prescribed. They remain as a **recommended** approach to assessment where they still reflect the unit specification.
From September 2021, centre devised assessments are permitted for all units on all Agored Cymru Access to HE Diplomas.
All assessment evidence completed As part Of an Agored Cymru Access To HE Diploma Is subject To external moderation.

Assessment Information:

AC 1.2 A minimum of two methods of recovery.
AC 1.4 A minimum of two methods of impression collection.
AC 2.2 A minimum of three glass samples.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.

Investigative Practice

Level: Three
Credit Value: 3

Purpose and Aim

To enable the learner to understand methods of obtaining evidence by questioning; methods of record keeping and documentation at crime scenes; and the presentation of evidence.

Learning Outcomes The learner will	Assessment Criteria The learner can
1. Understand the methods of obtaining evidence by questioning.	**1.1** Carry out an investigative interview of a witness. **1.2** Apply some of the legal principles of interviewing suspects.
2. Be able to perform record keeping and documentation at crime scenes.	**2.1** Contemporaneously record accurate detailed notes at a crime scene. **2.2** Complete a detailed report describing the evidence from an incident relevant to the prosecution of defence.
3. Be able to demonstrate the presentation of evidence.	**3.1** Give evidence in mock court justifying actions and decisions taken at a crime scene.

Access to HE Grade Descriptors:

- 3 - Application of Skills
- 5 - Communication and Presentation
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

Unit Assessment Requirements are not prescribed. They remain as a **recommended** approach to assessment where they still reflect the unit specification.

From September 2021, centre devised assessments are permitted for all units

on all Agored Cymru Access to HE Diplomas.
All assessment evidence completed As part Of an Agored Cymru Access To HE Diploma Is subject To external moderation.

Assessment Information:

AC 1.2 Minimum of three.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.

Geography

World Population Growth and its Consequences

Level: Three
Credit Value: 6

Purpose and Aim

To enable the learner to understand the factors affecting world population growth; demographic statistics and decision making; the impact of growth on third world development; and the factors affecting the importance and consequences of migration.

Learning Outcomes The learner will	Assessment Criteria The learner can
1. Understand the factors affecting the growth of world population and the consequences of that growth.	**1.1** Describe the growth of world population. **1.2** Explain the factors affecting the trends in world population growth. **1.3** Evaluate the consequences of predicted future world population trends.
2. Understand the importance of a range of demographic statistics to economic development and political decision-making.	**2.1** Explain how a variety of demographic statistics are used in economic development and political decision-making.
3. Understand the impact of population growth on Third World Development.	**3.1** Describe the pattern of population growth in less developed countries. **3.2** Assess the roles of culture, tradition and attitudes to family sise in relation to population growth. **3.3** Evaluate the link between poverty and population growth. **3.4** Explain strategies for alleviating poverty through population growth limitation.
4. Understand the factors affecting migrations of people.	**4.1** Describe the factors affecting migrations of people. **4.2** Analyse the consequences of migration in relation to a specific historical or current case study.

Access to HE Grade Descriptors:

- 1 - Understanding of the Subject
- 2 - Application of Knowledge
- 4 - Use of Information
- 5 - Communication and Presentation
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

Unit Assessment Requirements are not prescribed. They remain as a **recommended** approach to assessment where they still reflect the unit

specification.
From September 2021, centre devised assessments are permitted for all units on all Agored Cymru Access to HE Diplomas.
All assessment evidence completed As part Of an Agored Cymru Access To HE Diploma Is subject To external moderation.
Assessment Information:

AC1.2 A minimum of two factors.
AC2.1 Minimum two sets of statistics.
AC3.1 A minimum of two less developed countries.
AC3.4 A minimum of two possible strategies.
AC4.1 A minimum of two factors.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Sustainable Cities in both More and Less Economically Developed Countries

Level: Three
Credit Value: 3

Purpose and Aim

To enable the learner to understand the concept of sustainability, the range of problems faced by different countries, different approaches to making cities more sustainable, and how to assess sustainable solutions.

Learning Outcomes The learner will	Assessment Criteria The learner can
1. Understand the concept of sustainability in an urban context.	**1.1** Define the term 'sustainability'. **1.2** Explain the relevance and importance of sustainability in cities.

Learning Outcomes The learner will	Assessment Criteria The learner can
2. Understand the range of problems faced by More Economically Development Countries (MEDCs) and Less Economically Developed Countries (LEDCs).	**2.1** Analyse the transport problems in cities in MEDCs and LEDCs. **2.2** Analyse the issue of waste disposal in cities.
3. Understand different approaches to making cities more sustainable.	**3.1** Describe approaches for making cities more sustainable in both MEDCs and LEDCs. **3.2** Compare and contrast solutions using technologies used in MEDCs and those using the skills of indigenous population in LEDCs.
4. Be able to assess the success of sustainable solutions.	**4.1** Evaluate a scheme to tackle urban waste disposal issues. **4.2** Evaluate a scheme to tackle transport problems in cities.

Access to HE Grade Descriptors:

- 2 - Application of Knowledge
- 4 - Use of Information
- 5 - Communication and Presentation
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

- Case study
- Written question & answer/test/exam
- Essay
- Oral question and answer
- Written exercise
- Group discussion

Unit Assessment Requirements are not prescribed. They remain as a **recommended** approach to assessment where they still reflect the unit specification.

From September 2021, centre devised assessments are permitted for all units on all Agored Cymru Access to HE Diplomas.

All assessment evidence completed As part Of an Agored Cymru Access To HE Diploma Is subject To external moderation.

Assessment Information:

AC 3.1 A minimum of two approaches.
AC 4.1-4.3 For one MEDC and one LEDC.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.

Spatial Inequalities and Segregation in the Western World

Level: Three
Credit Value: 6

Purpose and Aim

To enable the learner to understand the internal morphology of a city; the geographical concepts relating to the socio-economic inequalities within cities; and the patterns and forces of ethnic segregation within cities.

Learning Outcomes The learner will	Assessment Criteria The learner can
1. Understand the internal morphology of a city.	**1.1** Evaluate the use and application of models of urban land use. **1.2** Apply Herbert's Model of Land Use to the Central Business District (C.B.D.).

Learning Outcomes The learner will	Assessment Criteria The learner can
	1.3 Assess the limitations of models when applied to present-day cities.
	2.1 Describe criteria for determining the socio-economic inequalities that exist within cities.
	2.2 Explain the spatial location of socio-economic and environmental inequalities and deprivation that exist within a city.
2. Understand geographical concepts relating to socio-economic inequalities within cities.	**2.3** Evaluate possible causal links between socio-economic and environmental inequalities.
	2.4 Evaluate the reasons for socio-economic inequalities.
	3.1 Explain the locations of, and reasons for ethnic segregation within cities.
3. Understand patterns and forces of ethnic segregation within cities.	**3.2** Apply the theories of ethnic segregation to a city.
	3.3 Explain the relationship between ethnic segregation and socio-economic inequality.

Access to HE Grade Descriptors:

- 1 - Understanding of the Subject
- 2 - Application of Knowledge
- 4 - Use of Information
- 5 - Communication and Presentation
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

Unit Assessment Requirements are not prescribed. They remain as a **recommended** approach to assessment where they still reflect the unit specification.
From September 2021, centre devised assessments are permitted for all units on all Agored Cymru Access to HE Diplomas.
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Assessment Information:

AC 1.2 A minimum of two models of urban land use.
AC 3.1 A minimum of two cities.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.

Health Care

Public Health and the Environment

Level: Three
Credit Value: 3

Purpose and Aim

To understand the effect of environmental factors on physical and mental health and the regimes for the promotion of good health.

Learning Outcomes The learner will	**Assessment Criteria** The learner can
1. Understand the contribution of environmental factors to good health and ill-health.	**1.1** Analyse the impact of a range of environmental factors on physical health. **1.2** Analyse the impact of a range of environmental factors on mental health. **1.3** Analyse statistics of birth and death rates in the context of environmental factors.

Learning Outcomes The learner will	Assessment Criteria The learner can
2. Understand regimes for the promotion of good health.	**2.1** Evaluate programmes of preventative medicine and its effect on public health.

Access to HE Grade Descriptors:

- 1 - Understanding of the Subject
- 2 - Application of Knowledge
- 5 - Communication and Presentation
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

Unit Assessment Requirements are not prescribed. They remain as a **recommended** approach to assessment where they still reflect the unit specification.
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Assessment Information:

AC1.1 A minimum of three e.g. pollution, housing, employment etc.
AC1.2 A minimum of three e.g. housing, employment, support agencies.
AC2.1 A minimum of three programmes e.g. screening, genetic counselling, vaccination, immunisation.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.

Health Care

Level: Three
Credit Value: 3

Purpose and Aim

To enable the learner to understand the development and structure of health care in the UK.

Learning Outcomes The learner will	Assessment Criteria The learner can
1. Understand the development of health care in the UK .	**1.1** Explain the development of health care in the UK**.**
2. Understand the current structure for the delivery of health care in the UK.	**2.1** Explain the current structure of health care services in the UK.

Access to HE Grade Descriptors:

- 1 - Understanding of the Subject
- 5 - Communication and Presentation
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

Unit Assessment Requirements are not prescribed. They remain as a **recommended** approach to assessment where they still reflect the unit specification.

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Assessment Information:

A.C1.1 Since 1945 and to include reference to the Beveridge Report.

AC1.2 since 1945

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.

Health, Behaviour and Education

Level: Three
Credit Value: 6

Purpose and Aim

The purpose of the unit is to ensure that learners understand what is meant by the terms 'health' and 'health education', and the factors that can affect health.

Learning Outcomes The learner will	**Assessment Criteria** The learner can
1. Understand how health is defined.	**1.1** Explain a range of models of health to include: biomedical sociological holistic models.
2. Understand how environmental factors affect health.	**2.1** Explain factors in the environment that affect mental and physical health.
3. Understand how behaviour affects the health of individuals.	**3.1** Explain how different behaviours can affect personal health. **3.2** Analyse a dynamic of an individual's lifestyle that would affect their health.
4. Understand the function of health education.	**4.1** Explain what is meant by health education. **4.2** Explain what is meant by the following levels of health education: primary secondary tertiary.

Learning Outcomes The learner will	Assessment Criteria The learner can
	4.3 Evaluate the impact of a current health education campaign.

Access to HE Grade Descriptors:

- 1 - Understanding of the Subject
- 2 - Application of Knowledge
- 4 - Use of Information
- 5 - Communication and Presentation
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

Unit Assessment Requirements are not prescribed. They remain as a **recommended** approach to assessment where they still reflect the unit specification.
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Assessment Information:

AC2.1 A minimum of four environmental factors.
AC3.1 To include both positive and negative patterns of behaviour.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.

The Effects of Lifestyle on Health

Level: Three
Credit Value: 3

Purpose and Aim

To enable the learner to understand the effects of lifestyle on the health of individuals, and the community.

Learning Outcomes The learner will	**Assessment Criteria** The learner can
1. Understand the dietary goals required to maintain health.	**1.1** Summarise nutritional requirements across the stages of development. **1.2** Summarise current NHS Wales guidelines for balanced nutrition. **1.3** Explain diseases associated with malnutrition.
2. Understand how exercise is beneficial to maintain physical fitness.	**2.1** Explain the benefits of physical exercise. **2.2** Evaluate the effectiveness of aerobic and anaerobic exercise.
3. Understand the changing patterns of health and disease in a community.	**3.1** Evaluate the relationship between health harming behaviours and health and wellbeing. **3.2** Analyse the personal and social implications of sexually transmitted infections.

Access to HE Grade Descriptors:

- 1 - Understanding of the Subject
- 2 - Application of Knowledge
- 4 - Use of Information
- 5 - Communication and Presentation
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

Unit Assessment Requirements are not prescribed. They remain as a **recommended** approach to assessment where they still reflect the unit specification.

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All assessment evidence completed As part Of an Agored Cymru Access To HE Diploma Is subject To external moderation.
Assessment Information:

AC1.1 Evidence must include reference to at least two of the following:

- breast feeding
- infancy from birth to one year
- early years from one to three years
- childhood from four to seven years
- puberty from 8–12 years
- adolescence from 13–16 years
- adults.

AC1.3 A minimum of two deficiency diseases.
AC2.1 Evidence must include reference to scientific data.
AC3.1 May include alcohol, smoking and/or other drugs.
AC3.2 A minimum of two implications.
If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.

Communication for Healthcare Work

Level: Three
Credit Value: 3

Purpose and Aim

To enable the learner to understand the importance of good communication skills in a healthcare work environment.

Learning Outcomes The learner will	Assessment Criteria The learner can
1. Understand effective communication between individuals and healthcare workers.	1.1 Explain the effects of positive and negative communication styles in the first contact between individuals and healthcare workers. 1.2 Explain the role of verbal and non-verbal communication in health work.
2. Understand the importance of attending and listening.	**2.1** Explain barriers to effective listening and attending. **2.2** Explain the differences between passive and active listening.
. **3.** Understand confidentiality in health care.	3.1 Explain the responsibilities of health care workers in relation to confidentiality.

Access to HE Grade Descriptors:

- 1 - Understanding of the Subject
- 5 - Communication and Presentation
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

Unit Assessment Requirements are not prescribed. They remain as a **recommended** approach to assessment where they still reflect the unit specification.

From September 2021, centre devised assessments are permitted for all units on all Agored Cymru Access to HE Diplomas.

All assessment evidence completed As part Of an Agored Cymru Access To HE Diploma Is subject To external moderation.

Assessment Information:

AC2.1 A minimum of four barriers.

AC3.1 Evidence must include the ethical and legal responsibilities.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.

Biopsychosocial Approach to Health

Level: Three
Credit Value: 3

Purpose and Aim

To understand definitions, the way environmental factors and behaviour affect health.

Learning Outcomes The learner will	**Assessment Criteria** The learner can
1. Understand definitions of health.	**1.1** Evaluate models of health. **1.2** Analyse views of what it means to be healthy.
2. Understand the way environmental factors affect health.	**2.1** Explain factors in the environment that influence health. **2.2** Compare how an environmental factor can affect both mental and physical health.
3. Understand the effect of behaviour on the health of individuals.	**3.1** Explain how behaviours affect personal health. **3.2** Analyse how one dynamic of an individual's lifestyle affects their health.

Access to HE Grade Descriptors:

- 1 - Understanding of the Subject

- 2 - Application of Knowledge
- 5 - Communication and Presentation
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

Unit Assessment Requirements are not prescribed. They remain as a **recommended** approach to assessment where they still reflect the unit specification.
From September 2021, centre devised assessments are permitted for all units on all Agored Cymru Access to HE Diplomas.
All assessment evidence completed As part Of an Agored Cymru Access To HE Diploma Is subject To external moderation.

Assessment Information:

AC1.1 To include biomedical, holistic and sociological approaches.
AC1.2 To include his/her personal views.
AC2.1 A minimum of two factors.
AC3.1 A minimum of two behaviours.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.

Endogenous and Exogenous Causes of Illness and Disease

Level: Three
Credit Value: 6

Purpose and Aim

To enable the learner to understand the causes of endogenous and exogenous illnesses and diseases, the body's defence against exogenous causes, and the meaning of genetic screening and its implications.

Learning Outcomes The learner will	**Assessment Criteria** The learner can
1. Understand the exogenous causes of illness and diseases.	**1.1** Explain the meaning of 'transmissible diseases'. 1.2 Explain how disease is spread. **1.2** Describe the groups of pathogens responsible for causing disease and illness. **1.3** Describe an illness caused by one of the groups of pathogens in 1.3.
2. Understand the body's defences against disease.	**2.1** Explain the body's natural defences against disease. **2.2** Compare and contrast active and passive immunity. **2.3** Describe the different types of vaccinations available. **2.4** Describe programs of vaccination currently carried out.
3. Understand the endogenous causes of illness and diseases.	**3.1** Explain what is meant by 'hereditary diseases'. **3.2** Explain what is meant by 'non-chromosomal congenital defects'. **3.3** Selectone condition that is either hereditary or congenital. **3.4** Analyse the significant symptoms of the condition identified in 3.3.
4. Understand what is meant by 'genetic screening' and the implication that screening has for those screened.	**4.1** Define what is meant by the term 'genetic screening'. **4.2** Identify the applications of genetic screening. **4.3** Investigate conditions covered by each application identified in 4.2.

Access to HE Grade Descriptors:

- 1 - Understanding of the Subject
- 2 - Application of Knowledge
- 4 - Use of Information

- 5 - Communication and Presentation
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

Unit Assessment Requirements are not prescribed. They remain as a **recommended** approach to assessment where they still reflect the unit specification.
From September 2021, centre devised assessments are permitted for all units on all Agored Cymru Access to HE Diplomas.
All assessment evidence completed As part Of an Agored Cymru Access To HE Diploma Is subject To external moderation.

Assessment Information:

AC1.3 A minimum of five groups of pathogens.
AC2.4 At least two programs of vaccinations.
AC4.2 A minimum of three applications.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.

Understanding Mental Ill-Health

Level: Three
Credit Value: 3

Purpose and Aim

The aim of this unit is to enable the learner to understand the models and conditions relating to mental ill-health, the attitudes towards those with mental ill-health, and its management and/or treatment.

Learning Outcomes The learner will	Assessment Criteria The learner can
1. Understand attitudes towards people with mental ill-health.	**1.1** Analyse public and media attitudes towards people with mental ill-health. **1.2** Analyse the impact of stereotyping and discrimination of people with mental ill- health.
2. Understand mental ill-health.	**2.1** Analyse the consequences of mental ill-health issues. for individuals for family members.

Access to HE Grade Descriptors:

- 1 - Understanding of the Subject
- 2 - Application of Knowledge
- 5 - Communication and Presentation
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

Unit Assessment Requirements are not prescribed. They remain as a **recommended** approach to assessment where they still reflect the unit specification.
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All assessment evidence completed As part Of an Agored Cymru Access To HE Diploma Is subject To external moderation.

Assessment Information:

AC2.1 A minimum of two mental ill-health problems.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.

Current Issues in Health Care

Level: Three
Credit Value: 3

Purpose and Aim

To provide the learner with an opportunity to develop an understanding of the current issues in healthcare.

Learning Outcomes The learner will	**Assessment Criteria** The learner can
1. Understand challenges within the health care sector.	**1.1** Discuss the challenges and concerns of a public health related issue. **1.2** Explain current data that supports the discussion for 1.1.
2. Understand leading causes of death.	**2.1** Analyse evidence that indicates how significant health conditions are in contributing to the burden of disease in the UK. **2.2** Evaluate two risk factors that impact on these diseases.

Access to HE Grade Descriptors:

- 1 - Understanding of the Subject
- 5 - Communication and Presentation
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

Unit Assessment Requirements are not prescribed. They remain as a **recommended** approach to assessment where they still reflect the unit specification.

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All assessment evidence completed As part Of an Agored Cymru Access To HE Diploma Is subject To external moderation.

Assessment Information:

AC2.1 May include at least two of the following:

- Heart Disease
- Dementia
- Stroke
- Cancer.

AC 2.2 At least two risk factors.
If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.

Communicable and Non-Communicable Diseases

Level: Three
Credit Value: 3

Purpose and Aim

To enable the learner to understand the concept of communicable and non-communicable diseases, an example of a
non-communicable disease and the roles of immunity as a defence against disease.

Learning Outcomes The learner will	**Assessment Criteria** The learner can
1. Understand the concept of communicable and non-communicable disease.	**1.1** Explain the differences between communicable and non-communicable diseases. **1.2** Explain the roles of pathogens as the cause of communicable diseases.

Learning Outcomes The learner will	Assessment Criteria The learner can
	1.3 Explain the importance of the transmission cycle in communicable diseases.
2. Understand the causes of heart disease as an example of a non-communicable disease.	**2.1** Explain the functioning of a healthy heart. **2.2** Explain how physical and physiological changes contribute to the symptoms of heart disease. **2.3** Assess the relative importance of contributory risk factors in heart disease.
3. Understand the roles of non-specific and specific immunity in the defence against disease.	**3.1** Compare the roles of non-specific and specific branches of the immune system. **3.2** Explain the functions of the B and T cells in defence against pathogens.

Access to HE Grade Descriptors:

- 1 - Understanding of the Subject
- 2 - Application of Knowledge
- 4 - Use of Information
- 5 - Communication and Presentation
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

Unit Assessment Requirements are not prescribed. They remain as a **recommended** approach to assessment where they still reflect the unit specification.
From September 2021, centre devised assessments are permitted for all units on all Agored Cymru Access to HE Diplomas.
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Assessment Information:

AC 1.3 A minimum of one example.
AC 2.1 i.e. the cardiac cycle and its control.
AC 2.3 A minimum of three risk factors.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.

Health Physics

Health Physics

Level: Three
Credit Value: 3

Purpose and Aim

To enable the learner to understand the range of imaging techniques available in healthcare, the risks and safety precautions necessary with their use, their modes of operation and their effectiveness.

Learning Outcomes The learner will	**Assessment Criteria** The learner can
1. Be able to methods used to image the human body for medical diagnosis.	**1.1** Explain the principles of imaging. **1.2** Evaluate the advantages and limitations of imaging methods. **1.3** Describe a simple experiment modelling the behaviour of X-rays using light. **1.4** Present results in an appropriate format. **1.5** Present conclusions. **1.6** Evaluate the experiment.
2. Understand methods of medical treatment using ionising radiation, ultrasound and lasers.	**2.1** Explain the use of radio-isotopes and linear accelerators in treating malignancies.

Learning Outcomes The learner will	Assessment Criteria The learner can
	2.2 Explain the use of ultrasound in treating kidney stones. **2.3** Explain the use of lasers as scalpels.
3. Understand the hazards to staff and patients of using ionising techniques.	**3.1** Summarise the nature of ionising radiation. **3.2** Explain the effect of laser light on living tissues. **3.3** Explain the hazards of the strong magnetic fields in the vicinity of an MRI scanner.
4. Understand safety procedures and equipment used to monitor and reduce the hazards from ionising techniques.	**4.1** Evaluate methods of measuring the radiation dose received by medical staff and patients. **4.2** Explain how to minimise the hazards from radiation and lasers in hospitals.
5. Understand the benefits of imaging techniques in treating injuries and diseases.	**5.1** Explain the use of computer imaging in reconstructive surgery. **5.2** Evaluate the use of endoscopes in keyhole and non-invasive surgery.

Access to HE Grade Descriptors:

- 1 - Understanding of the Subject
- 2 - Application of Knowledge
- 4 - Use of Information
- 5 - Communication and Presentation
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

Unit Assessment Requirements are not prescribed. They remain as a **recommended** approach to assessment where they still reflect the unit specification.

From September 2021, centre devised assessments are permitted for all units on all Agored Cymru Access to HE Diplomas.

All assessment evidence completed As part Of an Agored Cymru Access To HE Diploma Is subject To external moderation.

Assessment Information:

AC1.1 To include using X-rays, gamma cameras, ultrasound, MRI, and lasers.
AC1.2 A minimum of two advantages and two disadvantages for each method used in 1.1.
AC2.3 To include treatment of birthmarks.
AC3.1 A minimum of three effects to include its effects on tissues and organs.
AC3.3 A minimum of three hazards.
AC4.1 A minimum of two methods.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.

Clinical Imaging Support Worker: Radiation Protection and Awareness

Level: Three
Credit Value: 3

Learning Outcomes The learner will	**Assessment Criteria** The learner can
1. Understand the use of ionising radiation.	**1.1** Explain the characteristics of X-rays. **1.2** Define ionising radiation. **1.3** Explain the effects of ionising radiation. **1.4** Explain the risks and benefits of medical exposure to ionising radiation.
2. Understand a range of clinical imaging techniques.	**2.1** Describe the principle imaging medium used in: MRI CT Scan

Learning Outcomes The learner will	Assessment Criteria The learner can
	Ultrasound Nuclear Medicine Conventional radiography.
3. Understand the legislation governing medical exposures.	**3.1** Outline current Ionising Radiation (Medical Exposure) Regulations. **3.2** Explain current local policies and protocols used in clinical imaging settings to include: the establishment of pregnancy working with speakers of languages other than Welsh or English.
4. Understand how radiation protection is used within the clinical imaging department.	**4.1** Explain how radiation protection is used in a clinical imaging setting to include: protecting self protecting others protecting the environment.

Access to HE Grade Descriptors:

- 1 - Understanding of the Subject
- 2 - Application of Knowledge
- 4 - Use of Information
- 5 - Communication and Presentation
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

- Oral question and answer

Unit Assessment Requirements are not prescribed. They remain as a **recommended** approach to assessment where they still reflect the unit specification.

From September 2021, centre devised assessments are permitted for all units on all Agored Cymru Access to HE Diplomas.

All assessment evidence completed As part Of an Agored Cymru Access To HE Diploma Is subject To external moderation.

Assessment Information:

There is no specific assessment information to be used with this unit.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Other Mappings:

NOS: ENTO HSS7.

KSF: Core 3 Level 3, Core 2 Level 2.

Assessor Requirements:

This unit may only be assessed by an occupationally competent registered practitioner.

Physics

Physics: Waves and Vibrations (Unit expired see RC23CY011)

Level: Three
Credit Value: 3

Purpose and Aim

To enable the learner to understand the general properties of mechanical and electromagnetic waves and electromagnetic waves; to be able to investigate the properties of sound in air; and understand the properties of simple harmonic motion.

Learning Outcomes The learner will	Assessment Criteria The learner can
1. Understand the general properties of waves.	**1.1** Explain how progressive waves are generated. **1.2** Classify waves into transverse or longitudinal and mechanical or electromagnetic.

Learning Outcomes The learner will	Assessment Criteria The learner can
	1.3 Describe the main differences between mechanical waves and electromagnetic waves.
	1.4 Define the terms amplitude, wavelength and frequency using wave profile diagrams for both transverse and longitudinal waves
	1.5 Use the equation v=fλ to solve problems.
	2.1 Define phase and coherence.
	2.2 Describe how stationary waves are formed and state how they differ from progressive waves.
2. Be able to investigate the propagation of sound in air.	**2.3** Describe the principles of interference and how this phenomena creates beats
	2.4 Explain factors that affect sound transmission.
	2.5 Measure the velocity of sound in air.
	3.1 Define Simple Harmonic Motion.
	3.2 Define oscillations, amplitude, frequency and period for the simple systems above.
3. Understand the properties of simple harmonic motion.	**3.3** Use the equation T=1/F to solve problems.
	3.4 Investigate the relationship between physical characteristics and periodic time for simple systems.
	3.5 Define and give examples of resonance.
	4.1 Describe the electromagnetic spectrum, with approximate values for wavelength, frequency and energy of the main sections.
4. Understand the properties of electromagnetic waves.	**4.2** Describe experiments to demonstrate reflection, refraction, interference, diffraction and polarisation of an electromagnetic wave.

Access to HE Grade Descriptors:

- 1 - Understanding of the Subject
- 2 - Application of Knowledge
- 3 - Application of Skills
- 4 - Use of Information
- 5 - Communication and Presentation
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

Unit Assessment Requirements are not prescribed. They remain as a **recommended** approach to assessment where they still reflect the unit specification.
From September 2021, centre devised assessments are permitted for all units on all Agored Cymru Access to HE Diplomas.
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Assessment Information:

AC 1.2 three examples of each wave type

AC1.5 A minimum of five problems.

AC 2.4 To include, temperature and density of the medium through which it propagates
AC3.1 For example, pendulum and/or mass-spring system.

AC 4.1 To include radio, microwave, infrared, visible, UV, X-rays and gamma rays.
AC4.2 A minimum of one experiment for each.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.

Physics: Waves and Vibrations (replace with amended RC23CY010?)

Level: Three
Credit Value: 3

Purpose and Aim

To enable the learner to understand the general properties of mechanical waves and electromagnetic waves; to be able to investigate the properties of sound in air.;

Learning Outcomes The learner will	Assessment Criteria The learner can
1. Understand the nature of waves.	**1.1** Explain how progressive waves are generated. **1.2** Classify waves into transverse or longitudinal and mechanical or electromagnetic. **1.3** Describe the main differences between mechanical waves and electromagnetic waves. **1.4** Define the terms amplitude, wavelength and frequency using wave profile diagrams. **1.5** Use the equation v=fλ to solve problems.
2. Understand the properties of progressive waves.	**2.1** Describe diffraction. **2.2** Describe the principle of superposition and coherence. **2.3** Investigate and describe the interference patterns observed in the Young's Double Slit and diffraction grating experiments. **2.4** Solve problems relating to Young's Double Slit and diffraction grating.

Learning Outcomes The learner will	Assessment Criteria The learner can
3. Understand the properties of stationary waves.	**3.1** Distinguish between progressive and stationary waves. **3.2** Describe how a stationary wave is formed and distinguish between nodes and antinodes. **3.3** Solve problems related to stationary waves. **3.4** Describe an experiment to determine the speed of sound in air using a stationary wave.

Access to HE Grade Descriptors:

- 1 - Understanding of the Subject
- 2 - Application of Knowledge
- 4 - Use of Information
- 5 - Communication and Presentation
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

Unit Assessment Requirements are not prescribed. They remain as a **recommended** approach to assessment where they still reflect the unit specification.
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Assessment Information:

AC1.5 A minimum of five problems.
AC2.4 A minimum of two problems.
AC3.3 A minimum of two problems.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Energy and Energy Transfer

Level: Three
Credit Value: 3

Purpose and Aim

To enable the learner to understand the concepts of work energy transfer, heat energy and heat transfer, that energy exists in different forms, heat loss from buildings, and the concept of electrical energy. To understand the effect of nuclear energy changes.

Learning Outcomes The learner will	Assessment Criteria The learner can
1. Understand the concept of Work and Energy Transfer.	**1.1** Explain the need to transfer energy in order to exert a force.
2. Appreciate that energy exists in different forms.	**2.1** . Explain the energy transfers which occur in given situations **2.2** Calculate energy changes during free fall.
3. Understand the concept of heat energy and heat transfer.	**3.1** Distinguish between heat energy and temperature. **3.2** Use the concepts of specific heat capacity and specific latent heat to solve problems associated with heat transfer. **3.3** Explain the mechanisms involved in the processes of heat transfer.
4. Understand the concept of electrical energy.	**4.1** Describe how the movement of electrons produces a current in terms of kinetic energy and drift velocity
5. Understand the effect of nuclear energy changes.	**5.1** Explain the need to postulate the existence of the nuclear strong force and identify its purpose

Learning Outcomes The learner will	Assessment Criteria The learner can
	5.2 Distinguish between the different types of nuclear radiation and their nature.
	5.3 Use quantities such as activity and half life in calculations.
	5.4 Use the Einstein relationship between energy and mass to calculate energy changes in nuclear reactions.
	6.1 Explain the main sources of heat loss from buildings.
6. Understand heat loss from buildings.	**6.2** Calculate the benefits in energy and financial terms, of various forms of heat insulation.

Access to HE Grade Descriptors:

- 1 - Understanding of the Subject
- 2 - Application of Knowledge
- 5 - Communication and Presentation
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

Unit Assessment Requirements are not prescribed. They remain as a **recommended** approach to assessment where they still reflect the unit specification.
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Assessment Information:

AC 2.1 e.g. during a pole vault.At least two examples

AC 3.3 to include convection, conduction and radiation.

AC 5.2 To include alpha, beta and gamma decay. (Particulate and EM radiation)
AC 6.2 To include roof insulation, cavity wall insulation and double-glazing.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.

Current Electricity (proposal to remove unit)

Level: Three
Credit Value: 3

Purpose and Aim

To enable the learner to understand current electricity, its terms and laws.

Learning Outcomes The learner will	Assessment Criteria The learner can
1. Understand a range of electrical terms.	**1.1** Define and explain the following electrical terms: electric charge electric current electric potential difference. electric resistance **1.2** Defineand explain in terms of energy, potential difference and the electromotive force. **1.3** Describe the mechanism of electrical conduction in metals.

Learning Outcomes The learner will	Assessment Criteria The learner can
	1.4 Derive and use the drift velocity equation.
	2.1 Carry out experiments which investigate I-V characteristics of a metallic conductor, filament bulb and semi-conductor diode/LED.
2. Understand Ohmâ€™sS Law and be able to calculate the resistance of an electrical conductor and its variation with temperature.	**2.2** Carry out an experiment to investigate the variation of resistance with temperature.
	2.3 Experimentally determine the temperature coefficient of resistance.
	2.4 Recall and use P=IV and W=IVt.
	3.1 Describe the band theory model of solids.
	3.2 Describe the terms valence band, conduction band and forbidden band.
3. Understand the band theory model of electrical conduction for different materials.	**3.3** Use band theory to explain the temperature dependence of resistance of materials and semi-conductors.

Access to HE Grade Descriptors:

- 1 - Understanding of the Subject
- 2 – Application of Knowledge
- 3 - Application of Skills
- 5 - Communication and Presentation
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

Unit Assessment Requirements are not prescribed. They remain as a **recommended** approach to assessment where they still reflect the unit specification.
From September 2021, centre devised assessments are permitted for all units on all Agored Cymru Access to HE Diplomas.
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Assessment Information:

2.4 on at least two occasions

3.1 For example: conductors and insulators

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.

Electromagnetism and Capacitance

Level: Three
Credit Value: 3

Purpose and Aim

To prepare learners for Higher Education qualifications in the physical sciences. This unit introduces the underlying principles of electromagnetism and capacitance.

Learning Outcomes The learner will	Assessment Criteria The learner can
1. Understand the effect of a static magnetic field on a conductor.	**1.1** Illustrate the magnetic field patterns around magnets and current-carrying conductors. **1.2** Define magnetic flux density, B. **1.3** Describe factors influencing the value of flux density, B.

Learning Outcomes The learner will	Assessment Criteria The learner can
2. Understand the effect of a varying magnetic field on a conductor.	**1.4** Investigate the force exerted on a current-carrying conductor in a magnetic field. **1.5** Explain the left hand rule. **2.1** Explain Faraday's Law of Electromagnetic Induction. **2.2** Explain Lenz's Law. **2.3** Use the two laws to solve problems on induced emfs. **2.4** Describe the principles of the transformer. **2.5** Explain the operation of a step-up and step-down transformer.
3. Understand the concept of capacitance and the factors affecting it.	**3.1** Define capacitance and the Farad. **3.2** Review factors affecting capacitance of a parallel plate capacitor. **3.3** Derive an expression for the energy stored in a capacitor in terms of the potential difference across the plates and the charge stored. **3.4** Solve problems related to capacitance. **3.5** Experimentally determine the time constant of a capacitor discharging through a resistor.

Access to HE Grade Descriptors:

- 1 - Understanding of the Subject
- 3 - Application of Skills
- 5 - Communication and Presentation
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

Unit Assessment Requirements are not prescribed. They remain as a **recommended** approach to assessment where they still reflect the unit specification.

From September 2021, centre devised assessments are permitted for all units

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Assessment Information:

AC1.1 A minimum of three magnetic field patterns
AC2.3 A minimum of three problems
AC3.4 A minimum of five problems. Questions should use the equations addressed in 3.1, 3.2 and 3.3.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

D.C. Circuits

Level: Three
Credit Value: 3

Purpose and Aim

To prepare learners for Higher Education qualifications in the physical sciences. The unit develops learners' ability to apply Ohmâ's law and solve problems relating to practical circuits.

Learning Outcomes The learner will	Assessment Criteria The learner can
1. Understand internal resistance and relate terminal potential difference to electromotive force and the current flowing in a circuit.	**1.1** Define internal resistance and illustrate sources that have it. **1.2** Calculate potential difference across the terminals of a source when it is driving current round a complete circuit. **1.3** Calculate potential difference across the terminals of a source

Learning Outcomes The learner will	Assessment Criteria The learner can
	when a current is driven through a source against its electromotive force.
2. Understand resistivity and conductivity.	**2.1** State an expression for resistance of a material in terms of its length, area and resistivity and review factors affecting the resistance of a material. **2.2** Experimentally determine the resistivity of a resistance wires. **2.3** Solve problems relating to resistivity for conductors and insulators.
3. Understand the behaviour of simple branched circuits with ohmic components.	**3.1** Investigate simple DC circuits with resistors connected in series or in parallel. **3.2** Calculate voltage, current and resistance in simple DC circuits with resistors connected in series or in parallel. **3.3** Describe a practical use of a potential divider within circuits.

Access to HE Grade Descriptors:

- 1 - Understanding of the Subject
- 3 - Application of Skills
- 5 – Communication and Presentation
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

Unit Assessment Requirements are not prescribed. They remain as a **recommended** approach to assessment where they still reflect the unit specification.

From September 2021, centre devised assessments are permitted for all units on all Agored Cymru Access to HE Diplomas.

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Assessment Information:

AC1.3 A minimum of three problems.
AC2.2 A minimum of three tests/experiments.
AC2.3 A minimum of three problems.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.

Vectors and Kinematics

Level: Three
Credit Value: 3

Learning Outcomes The learner will	Assessment Criteria The learner can
1. Be able to distinguish between SI and derived Quantities.	**1.1** Name Basic Quantities. **1.2** Name Derived Quantities. **1.3** State the relationship between Derived and SI Quantities.
2. Be able to identify and add vector quantities.	**2.1** Describe a vector quantity and give examples. **2.2** Add vectors using scaled drawings. **2.3** Add vectors using properties of right angled triangles.
3. Understand the principles of rectilinear motion of moving objects.	**3.1** Using appropriate units, define the terms:

Learning Outcomes The learner will	Assessment Criteria The learner can
	a) Displacement b) Speed c) Velocity d) Acceleration.
	3.2 Describe rectilinear motion with examples.
4. Be able to derive and use equations of uniformly accelerated motion in a straight line.	**4.1** Illustrate the variation of displacement and speed with respect to time and solve problems involving gradient and areas of x – t and v – t graphs.
5. Be able to analyse and solve problems involving motion due to a uniform velocity in one direction and uniform acceleration in a perpendicular direction.	**5.1** Describe motion of bodies in uniform gravitational fields. **5.2** Select and apply equations in kinematics.

Access to HE Grade Descriptors:

- 2 - Application of Knowledge
- 5 - Communication and Presentation
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

Unit Assessment Requirements are not prescribed. They remain as a **recommended** approach to assessment where they still reflect the unit specification.
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Assessment Information:

AC 1.1 The six fundamental SI quantities

AC 1.2 include a range. E.g. force, energy, velocity, acceleration, pressure, volume etc.

AC 5.2 To falling objects, projectile motion, motion under gravity.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.

Radioactivity

Level: Three
Credit Value: 3

Purpose and Aim

To enable the learner to understand the properties of the atom and isotopes; to be able to observe radioactivity under safe laboratory conditions; to understand radioactivity decay, background radiation and the nature of disintegration.

Learning Outcomes The learner will	Assessment Criteria The learner can
1. Understand the origins of chemical, electrical and nuclear properties of the atom.	**1.1** Describe the current model of an atom. **1.2** Identify and describe the constituent particles of an atom. **1.3** Explain which parts of the atom take part in chemical, electrical and nuclear properties.
2. Understand isotopes.	**2.1** Identify elements by proton number and chemical symbol. **2.2** Define the term isotope. **2.3** Use the standard notation for a range of isotopes

Learning Outcomes The learner will	Assessment Criteria The learner can
	.
	2.4 Explain why some isotopes are radioactive.
	3.1 Investigate absorbers of radiation.
3. Be able to observe radioactivity.	**3.2** Describe the nature of different forms of radiation.
	3.3 Distinguish between radiation from nuclei and electromagnetic radiation.
	4.1 List the safety precautions in the lab in relation to the use of radioactive sources.
4. Know safety precautions in the lab.	**4.2** Give reasons for the safety procedure in 4.1.
	5.1 Explain why the products of radioactive decay may themselves be radioactive.
5. Understand radioactivity decay series.	**5.2** Perform calculations on radioactive decay series.
	5.3 Write equations for radioactive decay.
	6.1 List sources of background radiation.
	6.2 Calculate his/her individual annual dose of radiation.
6. Understand background radiation.	**6.3** Use the Gray, Sievert and the Becquerel units.
	6.4 Outline the effects on humans of
	6.5 a range of doses of radiation. Describe an experiment to investigate background radiation.
	7.1 Use the decay curve to demonstrate the concept of half-life.
7. Understand the spontaneous nature of disintegration and the laws of radioactivity decay.	**7.2** Simulate radioactive decay.
	7.3 Perform calculations involving the decay constant, half-life and activity.

Access to HE Grade Descriptors:

- 1 - Understanding of the Subject
- 2 - Application of Knowledge
- 4 - Use of Information
- 5 - Communication and Presentation
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

Unit Assessment Requirements are not prescribed. They remain as a **recommended** approach to assessment where they still reflect the unit specification.
From September 2021, centre devised assessments are permitted for all units on all Agored Cymru Access to HE Diplomas.
All assessment evidence completed As part Of an Agored Cymru Access To HE Diploma Is subject To external moderation.

Assessment Information:

AC2.3 Provide notations for five isotopes.
AC3.2 At least three absorbers.
AC3.3 Alpha, Beta and Gamma.
AC5.3 At least the first five in the U238 decay series.
AC6.1 To include artificial and natural - at least three sources of each.
AC6.2 Worksheet available from IOP.org
AC6.4 At least three different doses of radiation.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.

Mechanics: Linear Motion and Forces

Level: Three
Credit Value: 3

Purpose and Aim

To enable the learner to understand motion and its laws, and the relationship between work, energy and efficiency.

Learning Outcomes The learner will	Assessment Criteria The learner can
1. Understand the motion of a body moving in a straight line.	**1.1** Identify the difference between vector and scalar quantities. **1.2** Represent linear motion graphically using displacement and velocity vs time graphs. **1.3** Calculate the gradient and area under the curve for the graphs above and identify what these represent. **1.4** Derive the constant acceleration equations for motion in a straight line and use these to solve problems mathematically, including problems involving the solution of a equation. **1.5** Use the equations to solve problems concerning vertical motion under gravity.
2. Understand Newton's laws of motion.	**2.1** State and interpret Newton's three laws. **2.2** Define linear momentum **2.3** Use the Principle of Conservation of Momentum to solve problems on colliding bodies.. **2.4** Derive the relation F=ma from Newton's second law.
3. Understand the effects of resistance to motion.	**3.1** Draw diagrams of forces to model given situations.

Learning Outcomes The learner will	Assessment Criteria The learner can
4. Understand the relationship between work, energy and efficiency.	**3.2** Calculate the effect of resistive forces on the motion of a body in a straight line. **3.3** Outline factors affecting terminal velocity. **4.1** State and discuss the implication of the principle of conservation of energy. **4.2** Define potential energy and derive the relationship PE=mgh. **4.3** Define kinetic energy and derive the relationship $KE=\frac{1}{2}mv^{2}$. **4.4** Solve problems involving energy transfer e.g. potential to kinetic. **4.5** Describe elastic and inelastic collisions. **4.6** Explain the concept of efficiency. **4.7** Solve problems relating to efficiency of processes.

Access to HE Grade Descriptors:

- 1 - Understanding of the Subject
- 2 - Application of Knowledge
- 4 - Use of Information
- 5 - Communication and Presentation
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

Unit Assessment Requirements are not prescribed. They remain as a **recommended** approach to assessment where they still reflect the unit specification.
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Assessment Information:

AC1.2 A minimum of two examples.
AC1.3 A minimum of two examples.
AC1.4 A minimum of three examples.

AC1.5 A minimum of three examples.
AC2.4 A minimum of three examples.
AC3.3 A minimum of three examples.
AC4.4 A minimum of three examples.
AC4.6 A minimum of three examples.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.

Waves in Sight and Hearing

Level: Three
Credit Value: 3

Learning Outcomes The learner will	Assessment Criteria The learner can
1. Understand types and features of waves.	**1.1** Interpret wave types and features. **1.2** Explain amplitude, wavelength, frequency and speed for waves in 1.1. **1.3** Calculate changes in frequency and wavelength.
2. Understand the structure and function of the ear.	**2.1** Explain how each constituent part of the ear's structure facilitates the function of hearing. **2.2** Analyse common causes of deafness.

Learning Outcomes The learner will	Assessment Criteria The learner can
3. Understand the behaviour of light when it passes through a lens.	**3.1** Demonstrate the effect of a range of lenses on parallel light.
4. Understand how the eye works as an optical instrument.	**4.1** Explain how the structure of the human eye is adapted for image formation.
5. Understand refractive visual defects and their correction.	**5.1** Explain the terms short-sightedness and long-sightedness. **5.2** Explain how the conditions in 5.1 can be corrected.

Access to HE Grade Descriptors:

- 1 - Understanding of the Subject
- 2 - Application of Knowledge
- 4 - Use of Information
- 5 - Communication and Presentation
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

Unit Assessment Requirements are not prescribed. They remain as a **recommended** approach to assessment where they still reflect the unit specification.
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All assessment evidence completed As part Of an Agored Cymru Access To HE Diploma Is subject To external moderation.

Assessment Information:

AC1.1 To include at least:

- sound waves
- electromagnetic waves
- interference
- superposition.

AC2.2 At least three common causes of deafness.
AC3.1 At least three different lenses using ray diagrams.
AC4.1 Include reference to the refractive properties of the various parts of the eye (e.g. vitreous humour).
If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.

Psychology

Social Psychology

Level: Three
Credit Value: 3

Purpose and Aim

To enable the learner to understand the theories of social perception and social influence.

Learning Outcomes The learner will	Assessment Criteria The learner can
1. Understand prosocial behaviour	**1.1** Explain the benefits of prosocial behaviour. **1.2** Evaluate research into the bystander effect
2. Understand social influence.	**2.1** Evaluate research into conformity. **2.2** Evaluate research into obedience.

Access to HE Grade Descriptors:

- 1 - Understanding of the Subject
- 4 - Use of Information
- 5 - Communication and Presentation
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

Unit Assessment Requirements are not prescribed. They remain as a **recommended** approach to assessment where they still reflect the unit specification. From September 2021, centre devised assessments are permitted for all units on all Agored Cymru Access to HE Diplomas.
All assessment evidence completed As part Of an Agored Cymru Access To HE Diploma Is subject To external moderation.

Assessment Information:

AC1.1 To include benefits to the individual and benefits to society

AC1.2 A minimum of two pieces of research.
AC2.1 and 2.2 A minimum of two pieces of research.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.

Theoretical Approaches to Psychology

Level: Three
Credit Value: 3

Purpose and Aim

To enable the learner to understand and critically compare theoretical approaches to psychology using related terminology and identify practical applications.

Learning Outcomes The learner will	Assessment Criteria The learner can
1. Understand theoretical approaches to psychology.	**1.1** Critically compare theoretical approaches to psychology.

Access to HE Grade Descriptors:

- 1 - Understanding of the Subject
- 5 - Communication and Presentation
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

Unit Assessment Requirements are not prescribed. They remain as a **recommended** approach to assessment where they still reflect the unit specification. From September 2021, centre devised assessments are permitted for all units on all Agored Cymru Access to HE Diplomas.
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Assessment Information:

AC1.1 A critical comparison requires learners to compare the similarities and differences in the approaches to psychology they have chosen, and further to provide a judgement on which approach may be a better approach to an area of psychology.

To include at least two theoretical approaches. For example:

- psychodynamic
- cognitive
- behavioural
- biological
- socio-cultural
- positive psychology.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.

Developmental Psychology - Early Socialisation

Level: Three
Credit Value: 3

Purpose and Aim

To enable the learner to understand the development of sociability, attachment formation, and long-term effects on children resulting from early life experiences.

Learning Outcomes The learner will	Assessment Criteria The learner can
1. Understand the development of sociability.	**1.1** Explain the stages in the development of sociability in the early years of life.
2. Understand the factors which contribute to individual differences in attachment.	**2.1** Explain different attachment styles. **2.2** Evaluate the factors which contribute to individual differences in attachment styles.
3. Know the long-term consequences of early deprivation and privation.	**3.1** Assess the potential long-term consequences of early traumatic experience and deprivation compared with a secure base.

Access to HE Grade Descriptors:

- 1 - Understanding of the Subject
- 5 - Communication and Presentation
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

Unit Assessment Requirements are not prescribed. They remain as a **recommended** approach to assessment where they still reflect the unit specification. From September 2021, centre devised assessments are permitted for all units on all Agored Cymru Access to HE Diplomas.

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Assessment Information:

AC1.1 with reference to Schaffer and Emerson.
AC2.1 with reference to secure, dismissive, fearful/avoidant and anxious.
AC2.2 e.g. parental style, temperament hypothesis.
AC3.1 with reference to the particular effects of enrichment, deprivation and separation.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.

Developmental Psychology Adolescence, Adulthood and Senescence

Level: Three
Credit Value: 3

Purpose and Aim

To enable the learner to understand theories related to development from adolescence to ageing.

Learning Outcomes The learner will	Assessment Criteria The learner can
1. Understand the theories of adolescence.	**1.1** Evaluate theories of emotional and social development in adolescence.
2. Understand the impact of critical life events in adulthood.	**2.1** Analyse the impact of critical life events in adulthood.

Learning Outcomes The learner will	Assessment Criteria The learner can
3. Understand theories of the ageing process on the individual.	**3.1** Evaluate theories relating to the impact of the ageing process on the individual.

Access to HE Grade Descriptors:

- 1 - Understanding of the Subject
- 5 - Communication and Presentation
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

Unit Assessment Requirements are not prescribed. They remain as a **recommended** approach to assessment where they still reflect the unit specification. From September 2021, centre devised assessments are permitted for all units on all Agored Cymru Access to HE Diplomas.
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Assessment Information:

AC1.1 At least two theories with reference to social and cultural factors including the influence of peer groups and family roles.
AC2.1 With reference to key theorists (e.g. - Erikson, Levinson, Gould) and including for example marriage, divorce, bereavement, unemployment and retirement.
AC3.1 Including social exchange, mental/physical activity and psycho-social perspectives.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.

Methods of Psychological Investigation

Level: Three
Credit Value: 3

Purpose and Aim

To enable the learner to understand Methods of investigation in psychology.

Learning Outcomes The learner will	Assessment Criteria The learner can
1. Understand psychological methods of investigation.	**1.1** Analyse the advantages and limitations of psychological methods of investigation.
2. Understand ethical issues in psychology.	**2.1** Analyse ethical issues in psychology.

Access to HE Grade Descriptors:

- 1 - Understanding of the Subject
- 4 - Use of Information
- 5 - Communication and Presentation
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

Unit Assessment Requirements are not prescribed. They remain as a **recommended** approach to assessment where they still reflect the unit specification. From September 2021, centre devised assessments are permitted for all units on all Agored Cymru Access to HE Diplomas.
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Assessment Information:

AC1.1 To include at least two of the following:

- experimental
- observational
- survey
- clinical (case study)
- content analysis
- correlational.

AC2.1 A minimum of three ethical problems.
If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.

Theories of Social Influence

Level: Three
Credit Value: 3

Purpose and Aim

To enable the learner to understand the theories of social influence.

Learning Outcomes The learner will	Assessment Criteria The learner can
1. Understand conformity.	**1.1** Explain social categorisation. **1.2** Explain intra-group dynamics. **1.3** Evaluate research into conformity.
2. Understand obedience.	**2.1** Evaluate research into obedience.

Access to HE Grade Descriptors:

- 1 - Understanding of the Subject
- 4 - Use of Information
- 5 - Communication and Presentation
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

Unit Assessment Requirements are not prescribed. They remain as a **recommended** approach to assessment where they still reflect the unit specification. From September 2021, centre devised assessments are permitted for all units on all Agored Cymru Access to HE Diplomas.
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Assessment Information:

AC1.1 To include the formation and effects of stereotypes, prejudice and discrimination.
AC1.2 To include group cohesion, groupthink, peer pressure and social facilitation.
AC1.3 A minimum of two pieces of research.
AC2.1 A minimum of two pieces of research.

This unit is barred against the following unit:
Social Psychology (PK13CY066)

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.

Stress and Stress Management

Level: Three
Credit Value: 3

Purpose and Aim

To enable the learner to understand causes and effects of others, the relationship between stress and personality and coping strategies and mechanisms.

Learning Outcomes The learner will	Assessment Criteria The learner can
1. Understand models of stress.	**1.1** Evaluate models of stress.
2. Understand causes and effects of stress.	**2.1** Explain potential causes of stress. **2.2** Explain potential effects of stress.
3. Understand the relationship between stress and personality.	**3.1** Analyse the relationship between stress and personality.
4. Understand strategies for coping with stress.	**4.1** Analyse strategies for preventing or coping with stress.

Access to HE Grade Descriptors:

- 1 - Understanding of the Subject
- 5 - Communication and Presentation
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

Unit Assessment Requirements are not prescribed. They remain as a **recommended** approach to assessment where they still reflect the unit specification. From September 2021, centre devised assessments are permitted for all units on all Agored Cymru Access to HE Diplomas.
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Assessment Information:

AC1.1 A minimum of two models.
AC2.1 A minimum of two causes.
AC2.2 A minimum of two effects.
AC4.1 A minimum of two coping strategies or mechanisms.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.

Abnormal Psychology

Level: Three
Credit Value: 3

Purpose and Aim

To enable the learner to understand medical and psychological models of abnormality.

Learning Outcomes The learner will	Assessment Criteria The learner can
1. Understand problems inherent in classifying and defining abnormal behaviour.	**1.1** Explain the problems inherent in the classification of abnormal behaviour. **1.2** Explain the problems inherent in defining abnormal behaviour.
2. Understand the psychological explanations of abnormality.	**2.1** Evaluate a range of psychological explanations of abnormality.

Access to HE Grade Descriptors:

- 1 - Understanding of the Subject
- 5 - Communication and Presentation
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

Unit Assessment Requirements are not prescribed. They remain as a **recommended** approach to assessment where they still reflect the unit specification. From September 2021, centre devised assessments are permitted for all units on all Agored Cymru Access to HE Diplomas.
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Assessment Information:

AC1.1 Classification refers to the current WHO International Classification of Diseases (ICD), and the current Diagnostic and Statistical Manual of Mental Disorders (DSM).
AC2.1 To include at least three of the following explanations:

- psychodynamic
- cognitive
- behavioural
- biological
- socio-cultural
- positive psychology.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.

Criminal Psychology

Level: Three
Credit Value: 3

Purpose and Aim

To enable the learner to understand criminal behaviour and crime and the role of psychology in the courtroom.

Learning Outcomes	Assessment Criteria
The learner will	The learner can
1. Understand psychological approaches to crime.	**1.1** Analyse psychological approaches to crime.

Learning Outcomes The learner will	Assessment Criteria The learner can
2. Understand the psychological impacts of the treatment of criminal behaviour	**2.1** Evaluate modifications and punishment methods for the management or treatment of criminal behaviour

Access to HE Grade Descriptors:

- 1 - Understanding of the Subject
- 5 - Communication and Presentation
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

Unit Assessment Requirements are not prescribed. They remain as a **recommended** approach to assessment where they still reflect the unit specification. From September 2021, centre devised assessments are permitted for all units on all Agored Cymru Access to HE Diplomas.
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Assessment Information:

AC1.1 At least two theories e.g. psychoanalytic, learning theories, cognitive theory, biological, personality.
AC2.1 A minimum of one modification method and one punishment method for criminal behaviour - e.g. restorative justice, anger management, imprisonment and token economy. If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.

Social Analytics

Social Analytics

Level: Three
Credit Value: 3

Purpose and Aim

To introduce learners to the application of statistical analysis in relation to data arising from social issues, to better prepare learners for the level of analysis required by undergraduate programmes of study.

Learning Outcomes The learner will	Assessment Criteria The learner can
1. Know how social issues can be measured and monitored.	**1.1** Explain the strengths and weaknesses of methods used to measure and monitor a range of social issues. **1.2** Outline the strengths and weaknesses of primary and secondary data. **1.3** Design hypotheses and related questions to explore social issues.
2. Be able to carry out statistical tests linked to data sets derived from social issues.	**2.1** Perform 't' tests to compare secondary data sets linked to the range of issues in 1.1 **2.2** Perform Chi squared tests on data sets related to a social issue. **2.3** Perform regression analysis between two variables.
3. Be able to evaluate the outcomes of statistical testing.	**3.1** Evaluate the reliability and validity of evidence produced from statistical tests. **3.2** Draw conclusions from the analysis of the data sets.

Access to HE Grade Descriptors:

- 3 - Application of Skills
  - 5 - Communication and Presentation
  - 7 - Quality

  Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

Unit Assessment Requirements are not prescribed. They remain as a **recommended** approach to assessment where they still reflect the unit specification.
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Assessment Information:

AC 1.1 A minimum of two different methods and two social issues e.g. health, science and crime.
AC 1.3 A minimum of two hypotheses.
AC 2.1 A minimum of two tests.
AC 2.2 A minimum of two tests.
AC 3.1 Evaluate evidence from a minimum of two statistical tests.
AC 3.2 A minimum of two data sets from a range of different issues.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.

Applying Social Analytics

Level: Three
Credit Value: 3

Purpose and Aim

To enable the learner to: represent and interpret data in diagrams, charts and graphs; calculate measures of central tendency and dispersion; use probabilities to solve problems; and to interpret statistically based reports.

Learning Outcomes The learner will	Assessment Criteria The learner can
1. Be able to represent and interpret data in statistical diagrams, charts and graphs relating to social issues.	**1.1** Construct statistical diagrams to represent data and to compare frequency distributions. **1.2** Construct and interpret cumulative frequency curves.
2. Understand the calculation of measures of central tendency and dispersion relating to social issues.	**2.1** Calculate and interpret arithmetic mean, mode and median for different types of frequency distributions. **2.2** Explain selection of measure for particular distributions. **2.3** Estimate quartiles and percentiles from a cumulative frequency curve. **2.4** Calculate the inter-quartile range. **2.5** Find the range of a set of data. **2.6** Calculate standard deviation and variance from a set of data.
3. Be able to use probabilities to solve problems relating to social issues.	**3.1** Calculate the probability of an event occurring. **3.2** Calculate the probability of a combined event occurring. **3.3** Draw a tree diagram or contingency table to illustrate the combined probabilities of several events. **3.4** Use a theorem of probability theory to solve problems.

Learning Outcomes The learner will	Assessment Criteria The learner can
4. Be able to interpret statistically based reports relating to social issues.	**4.1** Evaluate a range of statistically based reports.

Access to HE Grade Descriptors:

- 3 - Application of Skills
- 5 - Communication and Presentation
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

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Assessment Information:

All data should relate to social issues, e.g. health, science or crime.
AC 1.1 A minimum of 3 different types of statistical diagrams relating to at least two social areas.
AC 3.3 A minimum of three events.
AC 3.4 e.g. Bayes' theorem.
AC 4.1 Range to include a survey and /or poll, and experimental or observational claim.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Social Work

Equality and Diversity

Level: Three
Credit Value: 3

Purpose and Aim

To enable the learner to understand current legislation relating to equal opportunities.

Learning Outcomes The learner will	Assessment Criteria The learner can
1. Understand current legislation relating to equal opportunities.	**1.1** Evaluate the current and historical legislation relating to equal opportunities.
2. Understand ways by which those who experience discrimination can seek solutions.	**2.1** Explain the ways in which those who experience discrimination can seek solutions.

Access to HE Grade Descriptors:

- 2 - Application of Knowledge
- 5 - Communication and Presentation
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

Unit Assessment Requirements are not prescribed. They remain as a **recommended** approach to assessment where they still reflect the unit specification.
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Assessment Information:

AC 2.1 A minimum of two ways, to include through organisational routes, professional bodies, regulatory bodies, legal systems.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.

Social Services

Level: Three
Credit Value: 3

Purpose and Aim

To enable the learner to understand the structure of social care provision and to be able to relate required approaches to the needs of specified individuals.

Learning Outcomes The learner will	Assessment Criteria The learner can
1. Understand the provision and legislation of social care services.	**1.1** Explain differences between statutory, third sector and private social care provision. **1.2** Explain current legislation relating to social care services in Wales.
2. Be able to relate legislation to the provision of social care that meets the needs of specified individuals.	**2.1** Evaluate different approaches set out in legislation for the provision of social care to support specified individuals.

Access to HE Grade Descriptors:

- 2 - Application of Knowledge
- 5 - Communication and Presentation

- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

Unit Assessment Requirements are not prescribed. They remain as a **recommended** approach to assessment where they still reflect the unit specification.
From September 2021, centre devised assessments are permitted for all units on all Agored Cymru Access to HE Diplomas.
All assessment evidence completed As part Of an Agored Cymru Access to HE Diploma Is subject to external moderation.

Assessment Information:

AC1.1 A minimum of two differences e.g. governance and accountability, funding mechanisms, roles in safeguarding.

AC1.2 At least two specified laws
AC2.1 A minimum of two different approaches e.g. multi-agency collaboration, the 'active offer', voice and control, co-production.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.

Social Work Practice

Level: Three
Credit Value: 3

Purpose and Aim

To enable the learner to understand the range of social work provision, and the different practice approaches used in social work.

Learning Outcomes The learner will	Assessment Criteria The learner can
1. Understand the range of social work provision.	**1.1** Explain the roles of social work **1.2** professionals and organisations. Analyse the range and purpose of social work undertaken with different groups
2. Understand different practice approaches used in social work.	**2.1** Explain practice approaches used in social work in specified situations.

Access to HE Grade Descriptors:

- 2 - Application of Knowledge
- 5 - Communication and Presentation
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

Unit Assessment Requirements are not prescribed. They remain as a **recommended** approach to assessment where they still reflect the unit specification.
From September 2021, centre devised assessments are permitted for all units on all Agored Cymru Access to HE Diplomas.
All assessment evidence completed As part Of an Agored Cymru Access to HE Diploma Is subject o external moderation.

Assessment Information:

AC1.2 At least two groups.
AC1.1 At least two roles and two organisations

AC 2.1 At least two practice approaches e.g. person centred, solution focussed, strengths based, assessment, safeguarding; and at least two situations.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.

Social Work Policy and Legislation

Level: Three
Credit Value: 3

Purpose and Aim

This unit introduces learners to the concept of accountability and the purpose of legislation in relation to social work practice.

Learning Outcomes The learner will	Assessment Criteria The learner can
1. Understand accountability, uncertainty and conflict in social work.	**1.1** Explain accountability in the context of social work. **1.2** Explain areas of uncertainty or conflict in relation to the social worker's role.
2. Understand the purposes and implications of legislation in social work.	**2.1** Explain social workers duties, powers and responsibilities. **2.2** Explain the importance of law in determining action in social work using examples.

Access to HE Grade Descriptors:

- 2 - Application of Knowledge

- 5 - Communication and Presentation
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

Unit Assessment Requirements are not prescribed. They remain as a **recommended** approach to assessment where they still reflect the unit specification.
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Assessment Information:

AC1.2 A minimum of two areas of uncertainty or conflict.
AC2.1 A minimum of two of each.

AC2.2 A maximum of one specified law.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.

Theories of Social Work

Level: Three
Credit Value: 3

Purpose and Aim

To introduce learners to theories that underpin social work practice.

Learning Outcomes The learner will	Assessment Criteria The learner can
1. Understand theories underpinning social work.	**1.1** Explain why theories are important in social work. **1.2** Analyse named theories **1.3** underpinning social work and the purposes they serve. Discuss a named theory in relation to a specified social work situation.

Access to HE Grade Descriptors:

- 1 - Understanding of the Subject
- 2 - Application of Knowledge
- 5 - Communication and Presentation
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

Unit Assessment Requirements are not prescribed. They remain as a **recommended** approach to assessment where they still reflect the unit specification.
From September 2021, centre devised assessments are permitted for all units on all Agored Cymru Access to HE Diplomas.
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Assessment Information:

AC 1.2 Minimum of two named theories.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select

assessors who are trained in assessment, and who have subject specific competence to assess at this level.

Values of Social Work

Level: Three
Credit Value: 3

Purpose and Aim

To introduce learners to ethical principles and professional values that underpin social work practice.

Learning Outcomes The learner will	Assessment Criteria The learner can
1. Understand ethical principles and professional values that underpin social work practice. 2. Understand the role of reflective practice in promoting ethical practice.	**1.1** Explain the terms 'professional ethics' and 'social work values'. **1.2** Explain the current BASW code of ethics, values and ethical principles that are relevant to a specified frontline social work situation. **2.1** Evaluate the role of reflective practice in examining values and ethics.

Access to HE Grade Descriptors:

- 1 - Understanding of the Subject
- 2 - Application of Knowledge
- 5 - Communication and Presentation

- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

Unit Assessment Requirements are not prescribed. They remain as a **recommended** approach to assessment where they still reflect the unit specification.
From September 2021, centre devised assessments are permitted for all units on all Agored Cymru Access to HE Diplomas.
All assessment evidence completed as part of an Agored Cymru Access to HE Diploma Is subject to external moderation.

Assessment Information:

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.

Investigative Project / Extended Essay

Access to HE Investigative Project / Extended Essay

Level: Three
Credit Value: 6

Learning Outcomes The learner will	**Assessment Criteria** The learner can
1. Be able to plan and propose an investigative project/extended essay.	**1.1** Identify an area for research. **1.2** Produce a **research proposal** for an investigative project/extended essay.
2. Be able to conduct research.	**2.1** Conduct research for an investigative project/extended essay. **2.2** Evaluate established resources that address the research topic.

Learning Outcomes The learner will	Assessment Criteria The learner can
3. Be able to produce an investigative project/extended essay.	**3.1** Analyse findings of completed research. **3.2** Present the research as an investigative project/extended essay.

Access to HE Grade Descriptors:

- 1 - Understanding of the Subject
- 2 - Application of Knowledge
- 4 - Use of Information
- 5 - Communication and Presentation
- 6 - Autonomy / Independence
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

Unit Assessment Requirements are not prescribed. They remain as a **recommended** approach to assessment where they still reflect the unit specification.
From September 2021, centre devised assessments are permitted for all units on all Agored Cymru Access to HE Diplomas.
All assessment evidence completed As part Of an Agored Cymru Access To HE Diploma Is subject To external moderation.
Unit assessment requirements are no longer prescriptive. They are recommended assessment plans. Centres can devise their own assessment plan for this unit.

Assessment Information:

Investigative project/extended essay in this unit is defined as a written account of a piece of research, contextualised by the Access to HE Diploma title, of up to 3000 words.

AC1.2 **Research proposal.** This must include a research question to answer, a rationale, the selection of appropriate forms of research, identifying established secondary resources, collating findings, time scales and analytical methods to be used (500-800 words).

AC2.1 **Conduct research.** The forms of research and analytical methodologies selected must be fit for purpose for the area of study. These may include exploratory research, constructive research, empirical research, quantitative research, qualitative research, intersubjectivity, evidence-based research. the investigative project/extended essay must be based on secondary research

only.

Evidence generated for this unit cannot be used as evidence for any part of the unit 'Academic Skills'.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.

Practical Scientific Project - Analysis and Presentation

Level: Three
Credit Value: 3

Learning Outcomes The learner will	Assessment Criteria The learner can
1. Be able to process, represent and analyse data/results.	**1.1** Process data/results using appropriate diagrammatic, tabular, graphical or statistical techniques to illustrate results. **1.2** Analyse results including reference to validity and reliability of data.
2. Understand evidence and reach appropriate conclusions.	**2.1** Draw relevant conclusions from processed results, with reference to the original hypothesis or aim. **2.2** Use scientific knowledge, where appropriate to explain and clarify the conclusions.
3. Be able to evaluate own practical scientific project.	**3.1** Evaluate strengths and limitations of design and procedure.

Learning Outcomes The learner will	Assessment Criteria The learner can
	3.2 Suggest justified improvements and modifications to design and procedures.
4. Be able to present the practical scientific project in an appropriate style.	**4.1** Produce the practical scientific project using correct scientific convention throughout. **4.2** Present the practical scientific project clearly and logically using correct scientific terminology. **4.3** Use appropriate scientific citation and referencing.

Access to HE Grade Descriptors:

- 1 - Understanding of the Subject
- 2 - Application of Knowledge
- 4 - Use of Information
- 5 - Communication and Presentation
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

Unit Assessment Requirements are not prescribed. They remain as a **recommended** approach to assessment where they still reflect the unit specification.
From September 2021, centre devised assessments are permitted for all units on all Agored Cymru Access to HE Diplomas.
All assessment evidence completed As part Of an Agored Cymru Access To HE Diploma Is subject To external moderation.

Assessment Information:

There is no specific assessment information to be used with this unit.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in

assessment, and who have subject specific competence to assess at this level.

Practical Scientific Project - Design and Implementation

Level: Three
Credit Value: 3

Learning Outcomes The learner will	Assessment Criteria The learner can
1. Be able to define a practical research project.	**1.1** Identify and justify a relevant scientific topic with reference to appropriate sources. **1.2** Produce an hypothesis and clear aims for the project.
2. Be able to plan and design a practical scientific project.	**2.1** Develop a plan which addresses all relevant tasks including: timescale/priority acquisition of equipment and materials. **2.2** State anticipated method of data collection with regard for subsequent method of analysis. **2.3** Explain and justify planned methods with reference to controlled and uncontrolled variables, accuracy and reliability. **2.4** Link probable outcomes to relevant theories or previous work. **2.5** Identify any ethical, practical or safety issues and how these will be managed/overcome. **2.6** Carry out and record a risk assessment of the work.
3. Be able to carry out and refine practical scientific research.	**3.1** Use planned and stated techniques to obtain results/data with due regard for: precision and accuracy reliability.

Learning Outcomes The learner will	Assessment Criteria The learner can
	3.2 Make modifications to plan as appropriate. **3.3** Record raw data appropriately for future processing. **3.4** Identify and record errors in equipment or method.

Access to HE Grade Descriptors:

- 1 - Understanding of the Subject
- 2 - Application of Knowledge
- 3 - Application of Skills
- 4 - Use of Information
- 5 - Communication and Presentation
- 6 - Autonomy / Independence
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

Unit Assessment Requirements are not prescribed. They remain as a **recommended** approach to assessment where they still reflect the unit specification.
From September 2021, centre devised assessments are permitted for all units on all Agored Cymru Access to HE Diplomas.
All assessment evidence completed As part Of an Agored Cymru Access To HE Diploma Is subject To external moderation.

Assessment Information:

There is no specific assessment information to be used with this unit.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.

Work Experience

Preparation for Work Placement in a Health and Social Care Setting

Level: Three
Credit Value: 3

Purpose and Aim

To enable the learner to understand the concept of the welfare state; how care organisations are classified; the characteristics of an effective carer; and the theory of group dynamics and leadership skills and their implications for care organisations.

Learning Outcomes The learner will	**Assessment Criteria** The learner can
1. Understand the concept of the Welfare State.	**1.1** Define the term Welfare State. **1.2** Analyse the development of the Welfare State. **1.3** Analyse an element of welfare benefit.
2. Understand how care organisations are classified.	**2.1** Evaluate the differences between a range of care settings.
3. Understand the characteristics of an effective carer.	**3.1** Evaluate the qualities and characteristics of an effective carer. **3.2** Evaluate possible barriers to effectiveness. **3.3** Devise strategies to overcome barriers to effectiveness.
4. Understand the theory of group dynamics and leadership styles and their implication for care organisations.	**4.1** Analyse different leadership styles. **4.2** Analyse how individuals react within a group. **4.3** Evaluate the implications of group dynamics and leadership styles for care organisations.

Access to HE Grade Descriptors:

- 1 - Understanding of the Subject
- 2 - Application of Knowledge

- 4 - Use of Information
- 5 - Communication and Presentation
- 7 - Quality

Achievement of this unit should only be graded if being delivered as part of an Access to HE Diploma programme of study.

Assessment Methods:

Unit Assessment Requirements are not prescribed. They remain as a **recommended** approach to assessment where they still reflect the unit specification.
From September 2021, centre devised assessments are permitted for all units on all Agored Cymru Access to HE Diplomas.
All assessment evidence completed As part Of an Agored Cymru Access To HE Diploma Is subject To external moderation.

Assessment Information:

AC1.3 To include advantages and disadvantages.
AC2.1 In the statutory, private and voluntary sectors.
AC3.1 A minimum of four qualities and characteristics.
AC3.2 A minimum of three barriers.
AC3.3 A minimum of three strategies.
AC4.1 A minimum of three different leadership styles.
AC4.2 A minimum of three individuals.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.

Mathematics L2 ungraded

Data Handling and Probability

Level: Two
Credit Value: 3

Purpose and Aim

To give the learners knowledge and skills required in data handling and probability

Learning Outcomes The learner will	Assessment Criteria The learner can
1. Know suitability of questions for a data collection questionnaire.	**1.1** Design questions for a data collection questionnaire. **1.2** Assess the suitability of questions for a specified data collection questionnaire.
2. Be able to organise statistical data.	**2.1** Organise data into 2-way tables. **2.2** Group data into class intervals of equal width.
3. Be able to present statistical data.	**3.1** Present statistical data using: bar charts line graphs pie charts scatter graphs frequency polygons frequency diagrams. **3.2** Interpret graphs and charts.
4. Be able to calculate average and range.	**4.1** Calculate mean, median mode and range of discrete data. **4.2** Estimate the mean of grouped data using mid interval value. **4.3** Compare the mean and range of sets of data.
5. Be able to express the probability of events occurring.	**5.1** List the outcomes of combined events occurring. **5.2** Express probabilities in words and numerically. **5.3** Calculate a missing probability from a set of values. **5.4** Predict the number of times an outcome will occur in a given number of trials.

Assessment Methods:

There are no prescribed assessment methods for this unit. Assessments used should be fit for purpose for the unit and learners, and generate evidence of achievement for all the assessment criteria.

Assessment Information:

There is no specific assessment information to be used with this unit.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Other Mappings:

AC1.1 A minimum of four questions. The purpose of the questionnaire should be stated and the question designed to collect relevant data.
AC1.2 A minimum of four questions.
AC2.1 The data set should have a minimum size of 20.
AC2.2 The data set should have a minimum size of 20.
AC3.1 A minimum of one of each type required, created digitally. Scales and axis must be chosen by the learner on at least two occasions. Data could be provided appropriate to the data and purpose. .
AC3.2 A minimum of two.
AC4.1 The data set should have a minimum size of 20.
AC4.2 The data set should have a minimum size of 20.
AC4.3 Up to two pairs of sets of data should be compared.
AC5.1 For example by using a sample space diagram.
AC5.2 A minimum of five probabilities. Numerically could include using decimals, percentages or fractions.
AC5.3 Using the principle 1-P as the probability of an event not occurring.
AC5.4 Diagrammatic representations could be used to facilitate the prediction.

Shape, Space and Measure

Level: Two
Credit Value: 3

Purpose and Aim

To give the learners knowledge and skills required in shape, space and measure.

Learning Outcomes The learner will	Assessment Criteria The learner can
1. Be able to work within and between systems of units.	**1.1** Convert between units of measure within the metric system. **1.2** Convert between metric and imperial measures. **1.3** Select units for estimating or carrying out measurement.
2. Be able to calculate perimeter, area, volume and surface area of shapes and solids.	**2.1** Calculate perimeter and area of a 2D shape. **2.2** Calculate surface area and volume of a 3D shape.
3. Be able to describe and use the symmetry properties of 2D shapes.	**3.1** Demonstrate the symmetry properties of polygons. **3.2** Use order of rotational symmetry to determine 2D shape **3.3** Transform a shape by reflection, rotation, translation or enlargement.
4. Be able to calculate and use angle properties.	**4.1** Calculate angles using the properties of:- triangles quadrilaterals intersecting lines parallel lines. **4.2** Calculate interior and exterior angles of regular polygons. **4.3** Use Pythagoras' theorem to find a missing side of a right angled triangle.
5. Be able to use the principles of loci in constructions.	**5.1** Find and describe regions satisfying a combination of loci.
6. Be able to use bearings.	**6.1** Indicate the position of an object by using its bearings. **6.2** Use bearings to specify direction.

Assessment Methods:

There are no prescribed assessment methods for this unit. Assessments used should be fit for purpose for the unit and learners, and generate evidence of achievement for all the assessment criteria.

Assessment Information:

AC1.1 A minimum of four units of measure.
AC1.2 A minimum of three measures.
AC2.1 A minimum of three shapes to include circles and compound shapes.
AC2.2 A minimum of four shapes to include prisms, cylinders, cubes and cuboids.
AC3.1 A minimum of three polygons.
AC3.3 A minimum of two different shapes. Each type of transformation should be carried out at least once but not all need to be used on every shape. Translations should include the use of vectors. Enlargements should use the centre of enlargement.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.

Algebra and Graphs

Level: Two
Credit Value: 3

Purpose and Aim

To give learners knowledge and skills required in algebra and graphs

Learning Outcomes The learner will	**Assessment Criteria** The learner can
1. Be able to apply the laws of precedence.	**1.1** Use brackets and the hierarchy of operations in calculations.

Learning Outcomes The learner will	Assessment Criteria The learner can
2. Be able to use rules of indices to simplify expressions.	**2.1** Use index laws to simplify numerical and algebraic expressions. **2.2** Perform calculations using indices.
3. Be able to solve problems using formulae.	**3.1** Describe given situations using algebraic formulae. **3.2** Apply formulae to make calculations.
4. Be able to perform basic operations on simple algebraic expressions and inequalities.	**4.1** Manipulate algebraic expressions by expanding brackets and collecting like terms. **4.2** Factorise algebraic expressions by extracting common factors. **4.3** Solve linear equations. **4.4** Solve linear inequalities. **4.5** Change the subject of formulae.
5. Be able to find approximate solutions to formulae.	**5.1** Use systematic trial and improvement to find approximate solutions of equations.
6. Know how linear expressions can describe arithmetic sequences.	**6.1** Identify patterns in sequences of numbers. **6.2** Find the n^{th} term of an arithmetic sequence. **6.3** Use the n^{th} term of an arithmetic sequence.
7. Be able to interpret and plot graphs.	**7.1** Plot Cartesian coordinates in all four quadrants. **7.2** Identify coordinates of given points. **7.3** Plot and draw straight line graphs. **7.4** Find the coordinates of the midpoint of a line segment.

Assessment Methods:

There are no prescribed assessment methods for this unit. Assessments used should be fit for purpose for the unit and learners, and generate evidence of achievement for all the assessment criteria.

Assessment Information:

AC1.1 A minimum of five calculations.
AC2.1 A minimum of five expressions.
AC2.2 A minimum of five calculations.
AC3.1 A minimum of three situations.
AC4.1-4.5 A minimum of five of each.
AC4.1 The expressions should be up to and including the form ax (bx ±c).
AC4.2 The expressions should include letters and numbers and be up to and including the form $ax^2 \pm bx$.
AC4.3 On at least one occasion, an unknown is required on both sides of the equation. At least one of the equations should include brackets. At least one of the equations should include a negative solution.
AC5.1 A minimum of two.
AC6.1-6.3 A minimum of four sequences.
AC6.1 This should also include provision of subsequent terms.
AC7.1-7.3 A minimum of three of each.
AC7.3 Graphs should include:

- those in the form of y=mx+C
- those relating to a context, for example, conversion graphs.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.

Number

Level: Two
Credit Value: 3

Purpose and Aim

To give the learners knowledge and skills required in number

Learning Outcomes The learner will	Assessment Criteria The learner can
1. Be able to calculate using decimals, fractions and percentages.	**1.1** Add, subtract, multiply and divide decimals. **1.2** Add, subtract, multiply and divide fractions. **1.3** Use percentages to solve problems.
2. Understand fractions, decimals and percentages.	**2.1** Convert between fractions, decimals and percentages. **2.2** Order fractions, decimals and percentages.
3. Understand ratios and proportions.	**3.1** Write ratios in their simplest form. **3.2** Divide a quantity in a given ratio. **3.3** Use proportions to solve problems. **3.4** Use ratios to interpret diagrams drawn to scale.
4. Know different types of number.	**4.1** Identify prime, square, triangular, cube numbers, multiples and factors from a set of values. **4.2** Find the lowest common multiple and highest common factor of 2 numbers. **4.3** Find the product of prime factors of whole numbers.
5. Be able to approximate values.	**5.1** Approximate numbers to a given number of significant figures or decimal places.
6. Be able to perform calculations with and without the use of a calculator.	**6.1** Use a calculator for compound calculations. **6.2** Use estimation to check answers to calculations. **6.3** Choose the degree of accuracy appropriate for a particular purpose.
7. Be able to solve problems requiring calculations with negative numbers.	**7.1** Use calculations involving negative numbers to solve problems.

Assessment Methods:

There are no prescribed assessment methods for this unit. Assessments used should be fit for purpose for the unit and learners, and generate evidence of achievement for all the assessment criteria.

Assessment Information:

AC1.1 Numbers of up to two decimal places should be included. For multiplication and division, only one of the values needs to be a decimal number. The calculations should include practical problems.
AC1.3 A minimum of three problems. These should also include finding a percentage of a quantity in order to increase or decrease in real life situations, for example in calculations of:

- VAT
- value of profit or loss
- simple interest.

AC3.1 A minimum of four ratios.
AC3.2 Examples should include contexts, for example: recipes, best buys.
AC3.3 A minimum of three problems.
AC3.4 A minimum of two diagrams. These could be scale drawings or maps.
AC5.1 A minimum of four numbers.
AC6.1-6.3 On a minimum of four occasions.
AC7.1 A minimum of two multistaged problems of a complexity appropriate to the level of the unit.
If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Academic Skills L3 ungraded

Academic Skills

Level: Three
Credit Value: 3

Purpose and Aim

To provide opportunities for learners to demonstrate the academic skills needed to complete assessments on Access to Higher Education Diplomas.

Learning Outcomes The learner will	Assessment Criteria The learner can
1. Be able to plan and complete a written academic assessment.	**1.1** Plan a written academic assessment showing logical structure. **1.2** Make use of source material.

Learning Outcomes The learner will	Assessment Criteria The learner can
	1.3 Produce a written academic assessment.
2. Be able to plan and deliver an academic presentation.	**2.1** Plan an academic presentation with a logical structure for an intended audience. **2.2** Summarise information from a range of sources. **2.3** Deliver an academic presentation using a range of techniques.
3. Be able to participate in an academic discussion.	**3.1** Prepare to participate in an academic discussion. **3.2** Participate in an academic discussion. **3.3** Produce a summary of an academic discussion.
4. Be able to take notes.	**4.1** Produce notes from a variety of sources.
5. Be able to reference source material.	**5.1** Apply referencing in line with established academic conventions to indicate the use of sources.

Assessment Methods:

Unit assessment requirements are no longer prescriptive. They are recommended assessment plans. Centres can devise their own assessment plan for this unit.

Assessment Information:

AC1.2 Can include digital and non-digital source material.
AC1.3 The **written academic assessment** may be an essay or a report and must be produced for a graded unit with academic subject content.
AC2.1 The **intended audience** must comprise of two people including the assessor.
AC2.3 **Presentation techniques** can be variable and may include digital resources. Learners may deliver a presentation based on an academic poster that they have produced. Delivery can be either face to face or online. Online presentations can be either delivered synchronously or asynchronously. The presentation must be approximately 15 minutes in length.
AC4.1 Sources may include lectures, presentations and written texts.

Evidence generated for the unit Access to HE Investigative Project / Extended Essay cannot be used for evidence for this unit.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.

Study Skills L3 ungraded

Thinking Skills

Level: Three
Credit Value: 3

Purpose and Aim

This unit provides learning opportunities for developing thinking skills and embedding these skills across a range of tasks and learning.

Learning Outcomes The learner will	Assessment Criteria The learner can
1. Understand methods of improving thinking skills.	**1.1** Describe **methods** of developing thinking skills. **1.2** Evaluate a method of developing thinking skills.
2. Be able to apply a range of thinking skills.	**2.1** Evaluate own thinking skills used in assessments. **2.2** Create a reflective portfolio.
3. Understand their development in the context of thinking skills.	**3.1** Evaluate their progress in terms of reflective practice and thinking skills.

Assessment Methods:

There are no prescribed assessment methods for this unit. Assessments used should be fit for purpose for the unit and learners, and generate evidence of achievement for all the assessment criteria.

Assessment Information:

AC1.1 A minimum of two methods.
AC2.1 A minimum of two assessments completed for units with academic subject content.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Planning and Time Management

Level: Three
Credit Value: 3

Purpose and Aim

This unit provides opportunities for the learner to plan, prepare and set targets as part of an overall time management strategy for study.

Learning Outcomes The learner will	Assessment Criteria The learner can
1. Understand personal planning needs and time management issues.	**1.1** Evaluate their own time management skills in relation to study. **1.2** Develop a weekly study timetable.

Learning Outcomes The learner will	Assessment Criteria The learner can
	1.3 Identify the **problems and solutions** to the implementation of the timetable
	1.4 Meet deadlines when submitting assessed work.
2. Be able to plan a programme of study.	
2. Be able to assess programme/timetables to achieve goals.	**2.1** Review their study plans to establish potential revisions to timetables.

Assessment Methods:

Unit assessment requirements are no longer prescriptive. They are recommended assessment plans. Centres can devise their own assessment plan for this unit.

Assessment Information:

AC1.2 To consider workload, time available and possible unforeseen circumstances.
AC1.3 A minimum of two **potential problems and solutions**.
AC1.4 Across all formal assessments.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.

Revision and Exam Skills

Level: Three
Credit Value: 3

Purpose and Aim

The unit will provide the learner with opportunities to develop their examination and revision techniques and overall planning.

Learning Outcomes The learner will	Assessment Criteria The learner can
1. Be able to prepare for an examination.	**1.1** Analyse their strengths and weaknesses in relation to examination strategies. **1.2** Develop detailed personal revision strategies/plans to prepare for an examination.
2. Be able to respond to the requirements of an examination.	**2.1** Produce evidence of planning activities undertaken as part of the examination process. **2.2** Produce relevant, structured and substantial answers to the questions set within the time allowed. **2.3** Communicate answers clearly, concisely and accurately in a required format using necessary conventions.
3. Be able to evaluate revision and examination performance.	**3.1** Evaluate own revision schedule. **3.2** Evaluate own stress management skills. **3.3** Evaluate own strengths and weaknesses in exams.

Assessment Methods:

Unit assessment requirements are no longer prescriptive. They are recommended assessment plans. Centres can devise their own assessment plan for this unit.

Assessment Information:

AC2.1: For example, mind-mapping, rough plans.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.

Academic Writing

Level: Three
Credit Value: 3

Purpose and Aim

To enable the learner to understand how to:

- use punctuation and grammar in writing
- prepare for a piece of extended writing
- bring together ideas and information from different sources
- produce a piece of extended writing.

Learning Outcomes The learner will	Assessment Criteria The learner can
1. Understand the correct use of punctuation and grammar in writing.	**1.1** Explain the purpose of the following punctuation marks: colon semicolon hyphen apostrophe. **1.2** Give examples of the use of the marks in 1.1 within own writing. **1.3** Explain the use of coordinating and subordinating conjunctions. **1.4** Explain how to punctuate quoted statements within a piece of writing. **1.5** Explain the following grammatical errors: comma splice pleonasm run on sentences.

Learning Outcomes The learner will	Assessment Criteria The learner can
	1.6 Explain the key features of a well-structured paragraph.
2. Understand how to prepare for a piece of extended writing.	**2.1** Identify the purpose and audience for a piece of extended writing. **2.2** Describe key features of the genre to be used.
3. Know how to bring together ideas and information from different sources.	**3.1** Define the term plagiarism. **3.2** Make notes from reading on the selected topic. **3.3** Record references to reading accessed.
4. Be able to produce a piece of extended writing.	**4.1** Produce a piece of extended writing which demonstrates the correct use of grammar and punctuation.

Assessment Methods:

There are no prescribed assessment methods for this unit. Assessments used should be fit for purpose for the unit and learners, and generate evidence of achievement for all the assessment criteria.

Assessment Information:

AC1.1 The possessive and omission use of the apostrophe must be explained.
AC1.2 A minimum of two examples of each.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.

Digital Information Literacy (new unit)

Level: **Three**
Credit Value: **3**

Purpose and Aim: To understand how search history is used by third parties. To use and evaluate the digital information to complete complex tasks.

LEARNING OUTCOMES	ASSESSMENT CRITERIA
The learner will	The learner can

1. Understand techniques used to gather and evaluate digital information.	**1.1** Explain how search results may be manipulated by a variety of processes. **1.2** Explain techniques used by third parties to gather information about website users. **1.3** Explain the advantages and limitations of digital information. **1.4** Explain ways to evaluate digital information.
2. Be able to search for, evaluate and use digital information to complete a complex task.	**2.1** Plan a complex task requiring the application of digital information. **2.2** Use advanced search techniques to obtain the required information. **2.3** Justify his/her choice of search engine. **2.4** Evaluate the results of the searches in 3.2. **2.5** Organise, classify and save the information in a structured format so that it can be applied to the task in 3.1.
3. Be able to use and review digital information to complete a task.	**3.1** Use digital information found in 2.4 to complete the complex task stated in 2.1. **3.2** Evaluate the appropriateness of the information obtained for the stated task.

NOS:
Other Mappings:
Assessment Methods:
Assessment Evidence:
Assessment Information: 2.1 The task should be of a complexity appropriate to the level of the unit and require the application of at least three different items of digital information. For example: Research for an assignment or enterprise project, research for presentations, research to provide advice and guidance.
Assessor Requirements: There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.

Prerequisites:
There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.

Professional Behaviours (new unit)

Level: Three
Credit Value: 3

Purpose and Aim

To provide opportunities for learners to Identify the professional behaviours relevant to a professional setting

Learning Outcomes The learner will	**Assessment Criteria** The learner can
1. Understand the characteristics required to work in a professional setting.	**1.1** Analyse the characteristics required to work in a professional setting with reference to associated principles and concepts of professionalism.
2. Understand effective communication and team working skills.	**2.1** Distinguish between effective and ineffective skills with reference to a relevant model for each of the following: communication teamwork. **2.2** Evaluate the effectiveness of own communication skills, with reference to: verbal skills non-verbal skills. **2.3** Evaluate own team working skills.
3. Know how to manage risk and deal effectively with problems.	**3.1** Summarise the principles of risk management and problem-solving. **3.2** Explain how to solve a problem and manage any associated risk, using an actual or

Learning Outcomes The learner will	Assessment Criteria The learner can
	hypothetical problem relevant to a professional setting.
4. Reflect on own skills and develop a personal and professional development plan.	**4.1** Evaluate their own skills against those expected in a professional setting using a chosen model of reflective practice. **4.2** Identify own development needs based on evaluations in 4.1. **4.3** Produce a plan to meet personal and professional development objectives based on an evaluation of different options. **4.4** Reflect on own performance against the plan, identifying learning needs for the future throughout the duration of the Access to HE Diploma.

Assessment Methods:

It is recommended that this unit is assessed by way of a reflective learning journal in part or in its entirety.

Assessment Information:

AC1.1 Learners to identify a professional setting associated with their intended progression route

AC4.1 Learners must evaluate the skills they have developed through their particular life experiences. This may include work (paid or voluntary), education, travel, family commitments.

If not specifically stated in the assessment information, **a plural statement in any assessment criterion means a minimum of two**.

Assessor Requirements:

There is no information regarding specific assessor requirements for this unit. Centres should select assessors who are trained in assessment, and who have subject specific competence to assess at this level.