DIPLOMA GUIDE

Access to Higher Education

gateway qualifications

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Access to HE
Apprenticeships
Digital
Employability & Enterprise
English & Maths
ESOL
Personal & Social Development
Professional Development
Vocational

Access to HE Diploma (Science for Bioscience)

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About this Access to HE Diploma guide

This Access to HE Diploma specification is intended for Tutors, Assessors, Internal Quality Assurers, Quality Managers and other staff within Gateway Qualifications Access to HE approved providers/or prospective providers.

It sets out what is required of the student in order to achieve the Access to HE Diploma. It also contains information specific to managing and delivering the Access to HE Diploma (s) including specific quality assurance requirements.

The guide should be read in conjunction with the Gateway Qualifications Access to HE Provider Handbook and other publications available on the website which contain more detailed guidance on assessment and verification practice.

In order to offer this Access to HE Diploma you must be a Gateway Qualifications recognised centre and approved to offer Access to HE Diplomas.

If your centre is not yet recognised, or diploma approved, please contact our Development Team to discuss

Telephone: 01206 911211
Email: enquiries@gatewayqualifications.org.uk
Website: https://www.gatewayqualifications.org.uk/advice-guidance/delivering-our-qualifications/become-recognised-centre/

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1. Diploma Information

1.1 Overview of the Access to Higher Education Diploma

The Access to Higher Education (HE) Diploma is a nationally recognised qualification with common requirements relating to the description of student achievement. The Diploma is:

- a level 3 qualification, regulated by the Quality Assurance Agency (QAA) for Higher Education
- a unitised qualification, based on units of assessment which are structured in accordance with the Access to HE unit specification
- a credit-based qualification, operated in accordance with the terms of the Access to HE credit specification
- a graded qualification, as determined by the Access to HE Grading Scheme

Details of the credit framework and requirements relating to the award of credit are provided within the Quality Assurance Agency Recognition Scheme for Access to Higher Education: The Access to Higher Education Diploma specification 2013.

Individual named Diplomas are identified by separate titles and are validated at by Gateway Qualifications as an Access Validating Agency (AVA) recognised by the Quality Assurance Agency for Higher Education (QAA). Each Diploma has its own approved set of units of assessment, governed by rules of combination, which are appropriate to the subject of the particular Diploma. The common grading requirements apply to all individual Diplomas.

1.2 About this Diploma

The design of this programme has been drawn from existing successful Access to Science Diplomas and with consultation with HEI colleagues.

The current Gateway Qualifications Access to HE Science provision covers 10 differing science routes, all of which are different and diverse in approach. From analysis of the LEP priorities and HE science progression routes, it became clear that science is being prioritised along technology and bioscience routes. This proposed diploma will create a standardised approach to the Bioscience route.

HEI colleagues expressed the need for Science for Bioscience to be inclusive of primarily biology related academic content. In doing this the content straddles a range of biology perspectives. The focus is not only human biology, but also includes medical, chemical and environmental/ecosystems biological perspectives.

It is hoped that this focused science pathway will increase opportunity to enter focused science degree pathways. Historically this has been difficult in some areas with a very generalist science qualification.

1.3 Purpose

The primary purpose of Access to HE Diplomas is to provide higher education progression opportunities for adults who, because of social, education or individual circumstances, may have achieved few, if any, prior qualifications.

1.4 Aims

The qualification aims to:

- reintroduce learners to education recognising prior skills and experience and the particular needs of those returning to learn
- offer learners a responsive, supportive return to learn experience at a level appropriate for entry to HE
- develop the appropriate skills such as study skills that are necessary to enable learners to succeed in their HE career
- address issues of widening participation and social inclusion
- raise student awareness of the opportunities that a return to study and lifelong learning can bring.

1.5 Objectives

The objective of the Diploma is to enable learners to:

- satisfy the general academic requirements for entry to Higher Education
- prepare learners for HE level study generally and in subject areas appropriate to an intended HE course destination
- demonstrate appropriate levels of competence in subject specific skills and knowledge
- demonstrate practical, transferable and academic skills
- develop their confidence and ability to cope with a return to education at an advanced level
- enhance personal and career opportunities
- develop as independent and lifelong learners.

1.6 Sector Subject Area

2.1 Science

1.7 Target groups

Adults who, because of social, educational or individual circumstances may have achieved few, if any, prior qualifications and wish to progress to HE.
Students wishing to progress to a science / applied science degree pathway. Science is the 4th popular pathway choice for Gateway Qualifications Access to HE provision.

1.8 Delivery methods

Delivery methods for the Access to HE Diploma (Science for Bioscience) can include:

The delivery format will be left to the decision of the provider, with support from Gateway Qualifications

Assessment Methods should include:

The course will provide the student with a range of assessment methodology to support preparation to HE. This will include report and essay writing, giving presentations, literature researching, examinations, workbooks, portfolios, practical experiments etc. The assessment calendar will be available at the beginning of the academic year and students will be made aware of the hand in dates

1.9 Achievement methodology

The Diploma will be awarded to learners who successfully achieve an approved combination of units through a Portfolio of Evidence that has been successfully verified and monitored through Gateway Qualifications' Quality Assurance process.

The qualification is therefore determined by successful achievement of all required unit assessments with no further requirement for additional/terminal assessment.

1.10 Geographical Coverage

This qualification has been approved by for delivery in England.

1.11 Progression Opportunities

Following successful completion of the Access to HE Diploma (Science for Bioscience) learners may progress to the following:

BSc Biochemistry
Natural Sciences
Biological Sciences
Environmental Sciences

Also Sports Science, Paramedical Science, Forensic Science

The qualification does not provide guaranteed entry to UK higher education.

1.12 Equality, Diversity and Inclusion

It is Gateway Qualifications' aim that there shall be equal opportunities and so meet the organisation's legal responsibilities to prevent discrimination.

In accordance it is the organisation's intention that there should be no discrimination on the grounds of a protected characteristic including age, disability, gender assignment, marriage and civil partnership, pregnancy and maternity, race, religion and belief, sex, sexual orientation. It is acknowledged that this is not an exhaustive list.

2. Student Entry Requirements

2.1 Age

The course is designed to meet the needs of adults who have been out of full time education for a significant period of time and who have not achieved some or any formal qualifications. This generally would apply to learners over the age of 19.

2.2 Prior Qualifications

There is no requirement for learners to have achieved prior qualifications or units prior to undertaking this qualification.

Providers may ask learners for GCSEs as a mark of ability at Level 2 as an appropriate entry requirement to a Level 3 course. This also establishes HEI destination qualifications for Nursing, teaching etc. where these are required as part of the HEI application.

2.3 Prior Skills/Knowledge/Understanding

There is no requirement for learners to have prior skills, knowledge or understanding. However, learners would be expected to be able to demonstrate the skills and ability to study at Level 3.

2.4 Access to qualifications for learners with disabilities or specific needs

Gateway Qualifications and recognised providers have a responsibility to ensure that the process of assessment is robust and fair and allows the learner to show what they know and can do without compromising the rigour of the assessment used to evidence the criteria.

Gateway Qualification has a duty to permit a reasonable adjustment where an assessment arrangement would disadvantage a student with a disability, medical condition or learning need.

The following adaptations are examples of what may be considered for the purposes of facilitating access, as long as they do not impact on any competence standards being tested:

- adapting assessment materials
- adaptation of the physical environment for access purposes
- adaptation to equipment
- assessment material in an enlarged format or Braille
- permitting readers, signers, scribe, prompter, practical assistant
- changing or adapting the assessment method
- extra time, e.g. assignment extensions
- transcript

- use of assistive software where the software does not influence the learners' ability to demonstrate the skills, knowledge or understanding eg use of spellchecker in an English assessment
- using assistive technology
- use of CCTV, coloured overlays, low vision aids
- use of a different assessment location
- use of ICT/responses using electronic devices.

It is important to note that not all of the adjustments (as above) will be reasonable, permissible or practical in particular situations. The learner may not need, nor be allowed the same adjustment for all assessments.

Learners should be fully involved in any decisions about adjustments/adaptations. This will ensure that individual needs can be met, whilst still bearing in mind the specified assessment criteria for a particular qualification.

A reasonable adjustment for a particular learner may be unique to that individual and may not be included in the list of available access arrangements specified above.

Details on how to make adjustments for learners is set out in the Reasonable Adjustment and Special Considerations Policy and Procedures.

2.5 Additional Requirements/Guidance

Learners must have a UK address (including BFO) to be registered on an Access to HE Diploma.

2.6 Recruiting Learners with Integrity

It is vital that providers recruit with integrity. Providers must ensure that learners have the correct information and advice on their selected qualification(s) and that the qualification(s) will meet their needs.

The recruitment process must include the provider undertaking the assessment of each potential student and making justifiable and professional judgements about the student's potential to successfully complete the assessment and achieve the qualification. Such an assessment must identify, where appropriate, the support that will be made available to the learner to facilitate access to the qualification.

3. Achieving the Access to HE Diploma

3.1 Qualification Specification

The generic requirements for the Access to HE Diploma are that learners must achieve a total of 60 credits of which 45 credits must be achieved at level 3 from graded units that are concerned with academic subject and the remaining 15 credits can be achieved at level 2 or level 3 from units which are ungraded. It is recommended you include no more than 6 ungraded 'academic subject content' credits. The ungraded credits can be mandatory or optional within the Diploma. The approved Rules of Combination for this qualification are detailed below.

Where there is a selection of optional units within the permitted rules of combination, the selection of units to be used to form the Diploma course must be made before the learners are registered. Learners must be registered with Gateway Qualifications within 12 weeks of the start of the course or before application to UCAS, whichever is soonest.

3.2 Rules of Combination

The structure sets out the units required to be achieved the Access to Diploma, comprising of:

- Graded Academic mandatory units – Level 3
- Graded Academic optional units - Level 3
- Graded Research units - Level 3
- Ungraded units – Level 2/3.

Learners must achieve a total of 60 credits and meet unit group requirements.

Learners must complete at total of 60 credits of which 45 credits must be achieved at level 3 from graded units which are concerned with academic subject content and the remaining 15 credits must be achieved at level 3 from units which are ungraded.

Mandatory Units: Graded Academic Subject Content

Learners must achieve 39 credits from this group.

Unit Code	Unit Title	Level	Credits	Content	Grade Descriptors	Suggested Assessment Methods	Assessment Volume
QU006084	Basic Human Physiology	3	3	Academic	2, 7	Exam	2 hours
QU006088	Biochemistry	3	3	Academic	2, 3, 7	Short answer questions/diagrams Essay Practical report	300 words 600 words 600 words
QU006134	Cell Theory and Microbiology	3	3	Academic	2, 7	Multiple Choice Test Short Answer Workbook	30 minutes 1500 words in total
QU006249	Ecosystems and Human Influences	3	3	Academic	2, 7	Portfolio of evidence	1500 words
QU006355	Genetics and Evolution	3	3	Academic	2, 7	Exam – Short Answer Questions	2 hours
QU006587	Introduction to Human Biology	3	3	Academic	2, 7	Anatomical model with notes Group presentation (but individual contribution) 2 diagrams with short explanations	500 words 5 mins individual 2 diagrams plus 800 words
QU006182	Mathematics for Scientists	3	6	Academic	3, 7	4 class controlled assessments	4 class controlled assessments
QU006645	Microbiology and Health	3	6	Academic	2, 3, 7	Practical experiments and reflective essay, presentation, Short answer workbook	1500 words 10 minutes 1200 words
QU006751	Physical Science – Environmental Health and Medical Physics	3	3	Academic	1, 2, 7	Leaflet	500 words

Unit Code	Unit Title	Level	Credits	Content	Grade Descriptors	Suggested Assessment Methods	Assessment Volume
						Poster with accompanying notes Short Answer Questions	500 words 500 words
QU006985	Science of Life	3	6	Academic	2, 3, 7	Short Answer Questions/Diagrams Essay Practical Report	300 words 600 words 600 words

Graded Units: Research

Learners must achieve 6 credits from this group.

Unit Code	Unit Title	Level	Credits	Content	Grade Descriptors	Suggested Assessment Methods	Assessment Volume
QU010142	Practical Scientific Project	3	6	Academic	1, 2, 3, 4, 5, 6, 7	Research proposal and report Tutor observed practical activity	300 words and 3000 words Tutor observation report and lab book appendix.
QU007933	Research Project – Methodology	3	6	Academic	2, 3, 4, 6, 7	Research Proposal Report	300 words 3000 words
QU018310	Research: Practical Investigation Report	3	6	Academic	2, 3, 4, 6, 7	Plan Individual Practical Project Report	300 words Project 3000 words

Ungraded Units

Learners must achieve 15 credits from this group.

Unit Code	Unit Title	Level	Credits	Content	Suggested Assessment Methods	Assessment Volume
QU018346	Academic Reading Skills	3	3	Other	Examination	1.5 hour closed book
QU025276	Academic Writing Skills	3	3	Other	Notes from a range of sources, Essay Plan, Essay	300 words 200 words 1000 words
QU007486	Application of Number – Interpreting and Presenting Information	3	3	Other	2 x controlled assessments	2 x 60 minutes
QU007560	Communication – Speaking and Listening	3	3	Other	Presentation, Preparation, Group Discussion	5 minutes 250 word notes 15-20 minutes
QU007580	Examination Skills	3	3	Other	2 formal exams, revision timetable and plan	2 x 2 hr exams taken from other units. Revision plan of 500 words
QU025280	Optimising Examination Performance	3	3	Other	Examination Preparation, Examination, Reflective Journal	500 words 1-2 hour examination 800 words
QU010772	Practical Science Skills	3	3	Other	Investigation, Report, Reflection	Practical investigation 750 word report 250 word reflection
QU025532	Preparation for Higher Education	3	3	Other	Analysis, UCAS Statement, Preparing for interview questions, Chart	1500 words in total
QU018352	Presentation Skills	3	3	Other	Presentation,	5 minute presentation

Unit Code	Unit Title	Level	Credits	Content	Suggested Assessment Methods	Assessment Volume
					Answer Questions, Self Evaluation	5 minutes answering questions N/A
QU027084	Presenting Information Using ICT	3	3	Other	Research Notes, Presentation Handouts, Create Presentation	1500 words in total
QU025796	Professional Interpersonal Skills	3	3	Other	Essay, SWOT Analysis	1100 words 250 words
QU028487	Promoting Wellbeing and Building Resilience	3	3	Other	Report	1500 words
QU026344	References and the Reliability of Sources	3	3	Other	Literature Review - including recognised form of referencing and bibliography	1500 words
QU007654	Self Assessment and Personal Tutorial	3	6	Other	SWAT analysis, Action plan linked to personal tutorials. Reflective account at midpoint and summative.	300 words 800 words 2 x 1000 words
QU011467	Spreadsheets	3	3	Other	Case Study Analysis, Spreadsheet and Report	500 words 1000 words
QU026155	Writing Reports	3	3	Other	Report plan Presentation of report plan Report	Plan 2-3 minutes 1000 words

3.3 Additional completion requirements

Learners will probably require a pass in maths and English at Level 2 / GCSE to progress onto a degree course. Delivery providers should make learners aware of HEI course entry requirements.

3.4 Recognition of Prior Learning

Recognition of prior learning is a process that considers if a learner can meet the specified assessment requirements through knowledge, understanding or skills that they already possess and that can contribute towards the attainment of a qualification for which they are undertaking.

For further information please refer Annex C, Access to HE Diploma Specification, https://www.accesstohe.ac.uk/AboutUs/Publications/Documents/Access-Diploma-Specification.pdf

4. Access to HE Units of Assessment

4.1 Unit specification

A common unit specification applies to all units with Access to HE Diplomas the unit specification follows a standard template covering the following elements:

- title
- level
- credit value
- unit code
- learning outcomes
- assessment criteria
- grade descriptors
- type of unit (academic subject content or not).

The units of assessment for this Access to HE Diploma are contained within this Access to HE Diploma Guide.

4.2 Academic subject content

A unit is classified as having academic subject content, if the unit's knowledge and skills are directly related to the subject of the name of the Access to HE Diploma. Units will not meet the academic subject content requirement if they are principally concerned with personal development, generic English or mathematics, or study skills.

4.3 Graded and ungraded units

Graded units – grading operates at unit level and only applies to units which have been approved by Gateway Qualifications within a named Access to HE Diploma. Student achievement for graded units is recorded as Pass, Merit or Distinction for each unit, as set out in the QAA Access to HE Grading Scheme, 2012. Graded units will also satisfy the criteria of academic subject content.

There is a common set of broad generic grade descriptors which are used as the basis for all grading judgements on all courses:

1 Understanding the subject
2 Application of knowledge
3 Application of skills
4 Use of knowledge
5 Communication and presentation
6 Autonomy / Independence
7 Quality.

The seven grade descriptors are not subject specific. They can, however, through careful selection and in appropriate combinations, be used on all courses, with all units and for all

assignments. The descriptors to be used with a particular unit are selected with reference to the main aspects of student performance that need to be taken into account when grading decisions are made for that unit. They are formally assigned to the unit when it is validated.

Each of the seven grade descriptors comprises two sets of components, one which describes characteristics or qualities typical of performance at merit, and a parallel set of components which describes typical performance in the same areas at distinction. (There are no components for pass, because a pass grade is gained when a student meets the learning outcomes but does not achieve the standard required for merit.) Some of these components are more relevant to certain subjects than others and some particular terms are also more relevant for use with particular types of assessment than others. In order to ensure the grade descriptors are relevant for specific assignments, tutors identify the components of the descriptors being used that are most relevant for the particular assignment. The selected components of the descriptors (at merit and distinction) are then included in the assignment brief(s).

The grading scheme is not based on an assumed one-to-one relationship between the grade descriptors and learning outcomes (although it is possible that in some units, because of the way the learning outcomes have been structured, something close to a one-to-one relationship may emerge). In general, however, judgements about student work in relation to grading apply across the work for a unit, whether that unit is assessed through one, or more than one, assignment.

The full Grade Descriptors can be accessed by the following link, which also provides detailed information on grading:

http://www.accesstohe.ac.uk/AboutUs/Publications/Documents/Access-Grading-Scheme-Section-B.pdf

4.4 Revisions to Access to HE Units of Assessment

Gateway Qualifications reserves the right to review and amend units of assessment and will issue providers notification of the changes to the units of assessment. Gateway Qualifications undertakes regular unit reviews to ensure currency of units, providers are required to use updated versions where units are replaced.

5. Assessment and Quality Assurance

5.1 Provider Requirements

Providers must be approved by Gateway Qualifications as a centre and are required to ensure that:

- the main base is in the UK
- systems are in place to ensure that only learners with a UK address (including BFO) are registered for an Access to HE Diploma
- there are clear arrangements for the day-to-day operational management and coordination of Access to HE delivery.
- there are appropriate facilities and resources at each site, and for each mode of delivery
- staff have the professional competence and skills to teach and assess necessary to teach and assess the units available on the Diploma
- arrangements are in place to provide pre-course guidance to applicants and criteria for selection and admission to Access to HE Diplomas, and are consistent with QAA requirements with respect to admissions. https://www.accesstohe.ac.uk/AboutUs/Publications/Documents/Guidance-admission-of-learners-AHE-07.pdf.
- expertise and resources to provide information, advice and guidance on HE applications and progression opportunities.
- Systems for maintaining secure records of individual learners' registration and achievement
- internal moderation arrangements that meet Gateway Qualification requirements.
- arrangements for internal course monitoring and self-evaluation and feedback
- procedures and criteria for the recognition of prior learning that meet Gateway Qualifications requirements.
- quality assurance procedures relating to the delivery of provision, including transparent processes for handling appeals and complaints.

Providers should refer to the Gateway Qualifications' Access to HE Provider Handbook for further information on centre requirements.

5.2 Staffing Requirements

Providers are required to ensure that:

- staff have the professional competence and skills to teach and assess necessary to teach and assess the units available on the Diploma
- staff have expertise to provide information, advice and guidance on HE applications and progression opportunities.

5.3 Facilities and Resources

N/A

5.4 Assessment

Recommended assessment methods for each unit within a diploma are identified in section 3.2 Rules of Combination . To provide greater flexibility for Centres to develop an assessment strategy that meets the needs of their individual learners, Centres can select an alternative assessment method for the units(s) within the diploma using the equivalence guidance published on the website.

The guidance includes the expected assessment volume for different assessment methods and should enable Centres to choose alternatives whilst ensuring that the same rigor of assessment is maintained in comparison to any other three or six credit unit.

5.5 Quality Assurance Requirements

Gateway Qualifications applies a quality assurance model to the Access to HE Diploma of:

- internal assessment and internal verification by the provider
- moderation by Gateway Qualifications comprising of centre moderation and subject moderation.

These processes are set out within Quality Assurance section of the Gateway Qualifications' Access to HE Provider Handbook.

5.6 Additional Requirements/Guidance

There are no additional requirements that Learners must satisfy in order for assessment to be undertaken and the unit/qualification to be awarded.

6. Unit Details

Mandatory Units: Graded Academic Subject Content

Access to HE Diploma Unit

Unit Code:	QU006084		
Title:	Basic Human Physiology		
Unit Level:	Level 3	**Unit Credit:**	3
Grading type:	Graded		
Grade Descriptors:	• GD2-Application of knowledge • GD7-Quality		
Academic subject content/other:	Academic Subject Content		
Suggested assessment details:	Refer to Assessment Grid		

This unit has 4 learning outcomes.

LEARNING OUTCOMES	**ASSESSMENT CRITERIA**
The learner will:	**The learner can:**
1 Understand the digestion of food.	1.1 Describe the structure and function of the human gut in relation to absorption and the enzymes in digestion.
2 Understand how oxygen is made available.	2.1 Explain how gaseous exchange occurs in the lungs in relation to the features of a respiratory surface.
3 Understand how the circulatory system transports materials in the blood.	3.1 Explain the structure and function of the heart and major blood vessels.
4 Understand the principles of homeostatic control.	4.1 Construct homeostatic diagrams for control of blood glucose and body temperature.

Access to HE Diploma Unit

Unit Code:	QU006088		
Title:	Biochemistry		
Unit Level:	Level 3	**Unit Credit:**	3
Grading type:	Graded		
Grade Descriptors:	• GD2-Application of knowledge • GD3-Application of skills • GD7-Quality		
Academic subject content/other:	Academic Subject Content		
Suggested assessment details:	Refer to Assessment Grid		

This unit has 3 learning outcomes.

LEARNING OUTCOMES	**ASSESSMENT CRITERIA**
The learner will:	**The learner can:**
1 Be able to show an understanding of macromolecules.	1.1 Construct diagrams and explain the essential features of carbohydrates, lipids and protein molecules. 1.2 Make diagrams to show the formation of peptide and glyosidic bonds. 1.3 Explain in detail the structure of proteins and the types of bonds which hold these molecules in shape.
2 Understand the range of functions performed by proteins in living organisms.	2.1 Distinguish between globular and fibrous proteins and relate structure to function in these molecules.
3 Understand how enzymes function.	3.1 Explain that enzymes are catalysts and their mode of action in terms of active site and lowered activation energy. 3.2 Discuss the significance of enzyme specificity. 3.3 Investigate safely two interacting factors affecting the rate of enzyme catalysed reactions.

Access to HE Diploma Unit

Unit Code:	QU006314		
Title:	Call Theory and Microbiology		
Unit Level:	Level 3	**Unit Credit:**	3
Grading type:	Graded		
Grade Descriptors:	• GD2-Application of knowledge • GD7-Quality		
Academic subject content/other:	Academic Subject Content		
Suggested assessment details:	Refer to Assessment Grid		

This unit has 4 learning outcomes.

LEARNING OUTCOMES	**ASSESSMENT CRITERIA**
The learner will:	**The learner can:**
1 Understand the five kingdom classification systems.	1.1 Allocate a different organism to their appropriate kingdoms. 1.2 Explain the rationale for inclusion in each of these kingdoms.
2 Understand cell structure and function.	2.1 Identify and relate structure to function the major components of prokaryotic and eukaryotic cells. 2.2 Summarise and explain the similarities and differences between bacterial plant and animal cells.
3 Understand the use of light and electron microscopes.	3.1 Interpret cell diagrams and explain the uses and limitations of light, transmission and scanning electron microscopy.
4 Understand movement across membranes.	4.1 Identify examples of different forms of trans-membranal movement with full justification. 4.2 Explain the principles of and differences between the different forms of transmembrane movement, relating them to membrane structure.

Access to HE Diploma Unit

Unit Code:	QU006249		
Title:	Ecosystems and Human Influences		
Unit Level:	Level 3	**Unit Credit:**	3
Grading type:	Graded		
Grade Descriptors:	• GD2-Application of knowledge • GD7-Quality		
Academic subject content/other:	Academic Subject Content		
Suggested assessment details:	Refer to Assessment Grid		

This unit has 4 learning outcomes.

LEARNING OUTCOMES	**ASSESSMENT CRITERIA**
The learner will:	**The learner can:**
1 Understand the structure of ecosystems.	1.1 Analyse the components of ecosystems. 1.2 Discuss how abiotic factors affect distribution of species. 1.3 Analyse inter relationship between species. 1.4 Explain succession as a change in ecosystem structure.
2 Understand the flow of energy in ecosystems.	2.1 Explain food chains and food webs. 2.2 Analyse the flow of energy through a food chain. 2.3 Explain photosynthesis as a cellular process which introduces energy and food chains.
3 Know some of the influences of humans on ecosystems.	3.1 Discuss the causes and effects of global warming. 3.2 Discuss the causes and effects of loss of biodiversity. 3.3 Discuss one other human influence on ecosystems.
4 Know how to carry out ecological sampling and understand conservation techniques.	4.1 Analyse sample data from a habitat to explain distribution of species. 4.2 Explain and compare conservation techniques in more than one habitat.

Access to HE Diploma Unit

Unit Code:	QU006355		
Title:	Genetics and Evolution		
Unit Level:	Level 3	**Unit Credit:**	3
Grading type:	Graded		
Grade Descriptors:	• GD2-Application of knowledge • GD7-Quality		
Academic subject content/other:	Academic Subject Content		
Suggested assessment details:	Refer to Assessment Grid		

This unit has 4 learning outcomes.

LEARNING OUTCOMES	**ASSESSMENT CRITERIA**
The learner will:	**The learner can:**
1 Understand meiosis and mitosis.	1.1 Describe the differences between meiosis and mitosis and discuss the significance of these differences.
2 Understand the key features of the genetic code.	2.1 Describe the essential features of nucleic acid molecules and interpret the roles of these molecules in coding and transferring information. 2.2 Define a gene and explain the significance of gene mutation. 2.3 Describe the process of protein synthesis.
3 Understand that fertilisation produces new combinations of alleles and that the expression alleles determine phenotype.	3.1 Use Mendelian genetics to solve problems and calculate probabilities of offspring in monohybrid and dihybrid and dihybrid crosses.
4 Understand the theory of evolution by natural selection.	4.1 Identify sources of variation on a population and analyse the roles of selection and isolation acting upon this variation.

Access to HE Diploma Unit

Unit Code:	QU006587		
Title:	Introduction to Human Biology		
Unit Level:	Level 3	**Unit Credit:**	3
Grading type:	Graded		
Grade Descriptors:	• GD2-Application of knowledge • GD7-Quality		
Academic subject content/other:	Academic Subject Content		
Suggested assessment details:	Refer to Assessment Grid		

This unit has 3 learning outcomes.

LEARNING OUTCOMES	**ASSESSMENT CRITERIA**
The learner will:	**The learner can:**
1 Understand basic cell structure and function.	1.1 Explain the components of a generalised cell and their functions.
2 Understand the nature of multi-cellular animals	2.1 Explain the major types of tissues and their functions. 2.2 Explain body systems and recognise their interdependent nature.
3 Understand the aims and approaches of health promotion.	3.1 Discuss the main aims and approaches of health promotion.

Access to HE Diploma Unit

Unit Code:	QU006182		
Title:	Mathematics for Scientists		
Unit Level:	Level 3	**Unit Credit:**	6
Grading type:	Graded		
Grade Descriptors:	• GD3-Application of skills • GD7-Quality		
Academic subject content/other:	Academic Subject Content		
Suggested assessment details:	Refer to Assessment Grid		

This unit has 5 learning outcomes.

LEARNING OUTCOMES	**ASSESSMENT CRITERIA**
The learner will:	**The learner can:**
1. Be able to perform calculations with real numbers expressed in a variety of forms.	1.1 Round numbers expressed as scientific measures to a given number of significant figures. 1.2 Select appropriate representation of numbers in carrying out simple calculations. 1.3 Distinguish between rational and irrational numbers. Explain, giving examples of each type. 1.4 Check answers to calculations by using estimation. 1.5 Calculate absolute and relative errors in relation to scientific problems, expressing answers as percentages. 1.6 Without using a calculator use standard form to manipulate large and small numbers as they arise in scientific work.
2. Be able to manipulate algebraic expressions.	2.1 Perform algebraic simplifications, which require the use of laws of indices for positive, negative and fractional indices. 2.2 Multiply out brackets in order to simplify algebraic expressions which are no more complex than quadratic expressions.

LEARNING OUTCOMES	ASSESSMENT CRITERIA
The learner will:	**The learner can:**
	2.3 Use factorisation to simplify algebraic fractions. 2.4 Solve any linear equation in one unknown after suitable algebraic manipulation. 2.5 Solve quadratic equations of the type $3x^2 - 11x + 6 = 0$ using factorisation or the quadratic formula' where appropriate. 2.6 Transpose formulae of the type used frequently in scientific work including cases involving roots and others requiring factorisation.
3. Be able to draw graphs of linear and quadratic functions and use graphical methods to solve problems.	3.1 Use algebra to solve problems related to direct and inverse proportion. 3.2 Find the gradient and intercept using $y = mx + c$. 3.3 Use the relationship $y - y_1 = m (x - x_1)$ to determine the equation of a line joining two points. 3.4 Draw a graph of a quadratic function by calculating suitable values. 3.5 Solve a pair of simultaneous equations using graphs, in which one is linear and one quadratic.
4. Be able to calculate lengths areas and volumes for standard figures.	4.1 State the required formula and calculate areas and perimeters of rectangles, triangles, trapezia and circles giving answers to an appropriate level of accuracy. 4.2 Convert all metric units by changing the prefix of the unit, including area and volume. 4.3 Calculate volumes and surface areas of cuboids, spheres, cylinders and other shapes with uniform area of cross-section. 4.4 Apply Pythagoras' theorem and trigonometry to solve practical

LEARNING OUTCOMES	ASSESSMENT CRITERIA
The learner will:	**The learner can:**
	problems involving right angled triangles. 4.5 Sketch graphs of sine, cosine and tangent functions using radian measure. 4.6 Solve problems related to periodic functions; time period, wavelength, frequency.
5. Be able to demonstrate an understanding of the laws of *exponential growth and decay*.	5.1 Calculate the ratio to show that exponential growth has a constant ratio greater than one. 5.2 Calculate the ratio to show that exponential decay has a constant ration of less than one. 5.3 Calculate the half-life for a quantity from its exponential decay graph and calculate the amount remaining of a quantity after a number of half-lives.

Access to HE Diploma Unit

Unit Code:	QU006645		
Title:	Microbiology and Health		
Unit Level:	Level 3	**Unit Credit:**	6
Grading type:	Graded		
Grade Descriptors:	• GD2-Application of knowledge • GD3-Application of skills • GD7-Quality		
Academic subject content/other:	Academic Subject Content		
Suggested assessment details:	Refer to Assessment Grid		

This unit has 5 learning outcomes.

LEARNING OUTCOMES	**ASSESSMENT CRITERIA**
The learner will:	**The learner can:**
1 Demonstrate an understanding of the main characteristics of micro-organisms.	1.1 Summarise the characteristics of bacteria, viruses and fungi. 1.2 Explain the characteristics of population growth in micro-organisms.
2 Be able to culture bacteria in the laboratory aseptically.	2.1 Apply aseptic technique in both solid and liquid cultures to produce successful growth. 2.2 Practically investigate the effect of disinfectants/antibiotics on bacteria. 2.3 Compare and explain bacterial growth in a range of milk samples.
3 Understand the methods of transmission of pathogens.	3.1 Explain the transmission of a well-known pathogen and compare this to other methods of transmission.
4 Understand natural defence mechanisms.	4.1 Explain the natural defence mechanisms in the body. 4.2 Differentiate between active and passive immunity. 4.3 Analyse the nature of antibody/antigen reactions.

LEARNING OUTCOMES	ASSESSMENT CRITERIA
The learner will:	**The learner can:**
5 Understand scientific reporting.	5.1 Describe methods in detail and tabulate results clearly and accurately. 5.2 Clearly interpret and explain results. 5.3 Evaluate work (discuss limitations of method, suggest improvements and further experiments).

Access to HE Diploma Unit

Unit Code:	QU006751		
Title:	Physical Science – Environmental Health and Medical Physics		
Unit Level:	Level 3	**Unit Credit:**	3
Grading type:	Graded		
Grade Descriptors:	• GD1-Understanding the subject • GD2-Application of knowledge • GD7-Quality		
Academic subject content/other:	Academic Subject Content		
Suggested assessment details:	Refer to Assessment Grid		

This unit has 3 learning outcomes.

LEARNING OUTCOMES	**ASSESSMENT CRITERIA**
The learner will:	**The learner can:**
1 Understand infection and infection control in the human.	1.1 Discuss the main categories of micro-organisms. 1.2 Discuss the routes of entry of micro-organisms and their effects in the body. 1.3 Explain the differences between pathogenic organisms and commensal organisms. 1.4 Discuss the principles of infection control.
2 Understand environmental health and environmental pollution.	2.1 Explain the main principles of environmental health. 2.2 Discuss the main causes and effects of environmental pollution. 2.3 Discuss the main aspects of the HASAW and COSHH acts.
3 Understand the electromagnetic spectrum and radiation.	3.1 Explain the electromagnetic spectrum and its parts. 3.2 Discuss the uses and effects of the electromagnetic spectrum. 3.3 Explain x-rays and alpha, beta and gamma radiation. 3.4 Discuss the commercial and medical uses of radiation.

Access to HE Diploma Unit

Unit Code:	QU006985		
Title:	Science of Life		
Unit Level:	Level 3	**Unit Credit:**	6
Grading type:	Graded		
Grade Descriptors:	• GD2-Application of knowledge • GD3-Application of skills • GD7-Quality		
Academic subject content/other:	Academic Subject Content		
Suggested assessment details:	Refer to Assessment Grid		

This unit has 6 learning outcomes.

LEARNING OUTCOMES	**ASSESSMENT CRITERIA**
The learner will:	**The learner can:**
1 Understand the ultrastructure of typical plan and animal cells.	1.1 Identify and explain the main components of a cell as seen under an electron microscope. 1.2 Explain the function of named components of a cell as seen under an electron microscope. 1.3 Explain the fluid mosaic model of membrane structure.
2 Understand the difference between prokaryotic and eukaryotic cells.	2.1 Analyse, compare and contrast prokaryotic and eykaryotic cells.
3 Understand mechanisms of transport across a cell membrane.	3.1 Explain the terms diffusion and osmosis. 3.2 Interpret the results of simple experiments to demonstrate diffusion. 3.3 Interpret the results of experiments to demonstrate osmosis. 3.4 Explain the process of active transport.
4 Understand the role of cell division in the life cycle of an organism.	4.1 Identify and explain, by practical investigation the different phases of mitosis. 4.2 Explain using diagrams, the different phases of meiosis. 4.3 Explain the difference between haploid and diploid cells and their place in the cell cycle.

LEARNING OUTCOMES	ASSESSMENT CRITERIA
The learner will:	**The learner can:**
5 Understand the properties of important biological molecules.	5.1 Explain the biological importance of water. 5.2 Explain the structure and properties of carbohydrates, proteins and lipids. 5.3 Demonstrate and explain by experiment the presence of proteins, lipids, reducing sugars and starch in different foods.
6 Understand the basic principles of genetic inheritance.	6.1 Explain the terms gene, allele, phenotype, genotype, recessive, dominant and codominant. 6.2 Explain the difference between monohybrid and dihybrid inheritance. 6.3 Use and analyse genetic diagrams to solve problems involving monohybrid and dihybrid crosses. 6.4 Explain using examples how mutation or the environment can affect phenotype. 6.5 Explain the role of DNA as the carrier of hereditary information.

Optional Units: Graded Academic Subject Content

Access to HE Diploma Unit

Unit Code:	QU010142		
Title:	Practical Scientific Project		
Unit Level:	Level 3	**Unit Credit:**	6
Grading type:	Graded		
Grade Descriptors:	• GD1-Understanding the subject • GD2-Application of knowledge • GD3-Application of skills • GD4-Use of information • GD5-Communication and presentation • GD6-Autonomy/Independence • GD7-Quality		
Academic subject content/other:	Academic Subject Content		
Suggested assessment details:	Refer to Assessment Grid		

This unit has 7 learning outcomes.

LEARNING OUTCOMES	**ASSESSMENT CRITERIA**
The learner will:	**The learner can:**
1 Know how to identify and define a practical scientific project.	1.1 Identify and justify a relevant scientific topic with reference to appropriate sources. 1.2 Produce a hypothesis and clear aims for the project.
2 Know how to plan and design a practical scientific project.	2.1 Develop a plan which addresses all relevant tasks including: (a) timescale/priority (b) 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 about 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.

LEARNING OUTCOMES	ASSESSMENT CRITERIA
The learner will:	**The learner can:**
3 Be able to carry out and refine a practical scientific project.	3.1 Use planned and stated techniques to obtain results/data with regard for: (a) precision and accuracy (b) reliability. 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. 3.5 Work with due regard for health and safety.
4 Know how to process, represent and analyse data/results.	4.1 Process data/results using appropriate diagrammatic, tabular, graphical or statistical techniques to illustrate results. 4.2 Analyse results including reference to validity and reliability data.
5 Be able to consider evidence and reach appropriate conclusions.	5.1 Draw relevant conclusions from processed results, with reference to the original hypothesis or aim. 5.2 Use scientific knowledge, where appropriate to explain and clarify the conclusions.
6 Be able to evaluate own practical scientific project.	6.1 Evaluate strengths and limitations of design and procedure. 6.2 Suggest justified improvements and modifications to design and procedures.

Access to HE Diploma Unit

Unit Code:	QU007933		
Title:	Research Project - Methodology		
Unit Level:	Level 3	**Unit Credit:**	6
Grading type:	Graded		
Grade Descriptors:	• GD2-Application of knowledge • GD3-Application of skills • GD4-Use of information • GD6-Autonomy/Independence • GD7-Quality		
Academic subject content/other:	Academic Subject Content		
Suggested assessment details:	Refer to Assessment Grid		

This unit has 5 learning outcomes.

LEARNING OUTCOMES	**ASSESSMENT CRITERIA**
The learner will:	**The learner can:**
1. Be able to plan a research project.	1.1 Identify and agree a research topic located within a knowledge domain relevant to the named diploma. 1.2 Produce and explain the aims of the research. 1.3 Develop, test, evaluate and refine appropriate research methodology. 1.4 Identify any ethical, practical or safety issues and how these will be managed/overcome.
2. Be able to conduct research.	2.1 Use a valid and appropriate method of investigation. 2.2 Identify and conduct detailed research from a wide range of sources. 2.3 Review research and relevant theory.
3. Be able to interpret research findings.	3.1 Interpret findings and draw appropriate conclusions.
4. Know how to present research findings.	4.1 Produce a research report. 4.2 Select and use the most appropriate format to present results. 4.3 Summarise information coherently in a conventional style, appropriate to the knowledge domain. 4.4 Reference all findings using a recommended style of referencing.

LEARNING OUTCOMES	ASSESSMENT CRITERIA
The learner will:	**The learner can:**
5. Be able to evaluate own research project.	5.1 Reflect on the project design and methodologies. 5.2 Evaluate findings in relation to aims, previous research and relevant theory. 5.3 Identify recommendations for the future.

Access to HE Diploma Unit

Unit Code:	QU007921		
Title:	Research: Practical Investigation Project		
Unit Level:	Level 3	**Unit Credit:**	6
Grading type:	Graded		
Grade Descriptors:	• GD2-Application of knowledge • GD3-Application of skills • GD4-Use of information • GD6-Autonomy/Independence • GD7-Quality		
Academic subject content/other:	Academic Subject Content		
Suggested assessment details:	Refer to Assessment Grid		

This unit has 4 learning outcomes.

LEARNING OUTCOMES	**ASSESSMENT CRITERIA**
The learner will:	**The learner can:**
1 Be able to plan a practical investigation project.	1.1 Identify and agree a practical investigation project, located within a knowledge domain relevant to the named Diploma. 1.2 Produce a hypothesis and clear aims for the investigation project. 1.3 Identify any ethical, practical or safety issues and how these will be managed/overcome. 1.4 Produce a risk assessment. 1.5 Maintain a record of project progress through all stages of research, development and completion.
2 Be able to undertake a practical investigation.	2.1 Carry out research from a wide range of sources. 2.2 Develop an appropriate investigation. 2.3 Identify the variables and explain how they can be controlled, where necessary. 2.4 Carry out the investigation safely, using appropriate practical skills and techniques. 2.5 Analyse the results of the investigation with reference to relevant theory.

LEARNING OUTCOMES	ASSESSMENT CRITERIA
The learner will:	**The learner can:**
3 Know how to present the project.	3.1 Present the body of work in a style appropriate to the knowledge domain. 3.2 Use appropriate technical terminology fluently. 3.3 Reference all findings using a recommended style of referencing.
4 Be able to evaluate own research project.	4.1 Reflect on the design and methodology of the project. 4.2 Evaluate the body of work in relation to aims and hypothesis. 4.3 Identify recommendations for the future.

Units: Ungraded

Access to HE Diploma Unit

Unit Code:	QU018346		
Title:	Academic Reading Skills		
Unit Level:	Level 3	**Unit Credit:**	3
Grading type:	Ungraded		
Academic subject content/other:	Other		
Suggested assessment details:	Refer to Assessment Grid		

This unit has 3 learning outcomes.

LEARNING OUTCOMES	**ASSESSMENT CRITERIA**
The learner will:	**The learner can:**
1 Be able to demonstrate the use of different reading techniques.	1.1 Annotate text after using skimming, scanning and active reading techniques. 1.2 Summarise text after using skimming, scanning and active reading techniques.
2 Explain, with examples, how language used in texts can reveal assumptions and prejudice.	2.1 Identify and explain instances of opinion and bias in text. 2.2 Analyse the use of objective and emotive language in a text.
3 Demonstrate how to apply critical reading techniques to texts.	3.1 Analyse the strengths and weaknesses of an argument from at least two texts. 3.2 Critically evaluate an argument.

Access to HE Diploma Unit

Unit Code:	QU025276		
Title:	Academic Writing Skills		
Unit Level:	Level 3	**Unit Credit:**	3
Grading type:	Ungraded		
Academic subject content/other:	Other		
Suggested assessment details:	Refer to Assessment Grid		

This unit has 5 learning outcomes.

LEARNING OUTCOMES	**ASSESSMENT CRITERIA**
The learner will:	**The learner can:**
1 Be able to record information from a range of sources.	1.1 Use note-taking skills to prioritise key points from a range of sources.
2 Be able to plan and develop a structured framework for extended writing, including an introduction, main body and conclusion.	2.1 Develop a detailed essay plan for an extended piece of writing, which organises meaning and ideas coherently and effectively. 2.2 Include detailed planning for an introduction, main body and conclusion to the essay.
3 Be able to proofread and edit own writing effectively.	3.1 Produce an essay draft which shows evidence of proofreading and editing.
4 Be able to present information and opinion in a written format, using language, style and conventions appropriate to academic writing.	4.1 Communicate with clarity and detail to convey meaning and ideas effectively. 4.2 Write following conventions of sentence structure, punctuation, paragraphing, spelling and grammar. 4.3 Use appropriate style and register which shows an awareness of audience.
5 Be able to understand and use a standard form of referencing.	5.1 Use accurately a standard form of referencing that reflects a range of sources.

Access to HE Diploma Unit

Unit Code:	QU007486		
Title:	Application of Number – Interpreting and Presenting Information		
Unit Level:	Level 3	**Unit Credit:**	3
Grading type:	Ungraded		
Academic subject content/other:	Other		
Suggested assessment details:	Refer to Assessment Grid		

This unit has 2 learning outcomes.

LEARNING OUTCOMES	**ASSESSMENT CRITERIA**
The learner will:	**The learner can:**
1 Know how to obtain and interpret mathematical and statistical information.	1.1 Within a complex task, identify and evaluate possible sources of data, e.g. rate of change, trends, probabilities. 1.2 Justify the choice of data collection procedures giving reasons for choosing a particular sample and methods used. 1.3 Evaluate actual or possible sources of error in collecting and recording data. 1.4 Choose and justify the chosen methods of recording data. 1.5 Interpret the main characteristics of the data in relation to the task.
2 Be able to present mathematical and statistical data.	2.1 Choose and use a range of appropriate and effective techniques to present accurately, e.g. the use of probability to describe situations, the presentation and interpretation of upper and lower boundaries of results; statistical diagrams. 2.2 Use correct axes, scales and conversions. 2.3 Justify choice and use of presentation techniques and methods for the original purpose of the task.

Access to HE Diploma Unit

Unit Code:	QU007560		
Title:	Communication – Speaking and Listening		
Unit Level:	Level 3	**Unit Credit:**	3
Grading type:	Ungraded		
Academic subject content/other:	Other		
Suggested assessment details:	Refer to Assessment Grid		

This unit has 2 learning outcomes.

LEARNING OUTCOMES	**ASSESSMENT CRITERIA**
The learner will:	**The learner can:**
1 Give a short presentation about a straightforward subject.	1.1 Speak clearly using language, tone and style appropriately to the purpose, subject, audience and situation. 1.2 Present information in a structured sequence so that ideas and concepts are easily followed by the audience. 1.3 Use appropriate supporting material to illustrate presentation. 1.4 Respond appropriately and sensitively to questions from the audience.
2 Take part in discussions.	2.1 Give and obtain information and exchange ideas in discussion on both familiar and unfamiliar subjects. 2.2 Organise contributions to match the demands of the discussion, use vocabulary precisely, deal with sensitive issues appropriately and take account of the audience, subject, situation and purpose of the discussion and own role in it. 2.3 Take forward the discussion and create opportunities for others to contribute by asking follow up questions, listening to and interpreting other points of view

LEARNING OUTCOMES	ASSESSMENT CRITERIA
The learner will:	**The learner can:**
	sensitively or inviting others to contribute their views. 2.4 Respond appropriately to questions.

Access to HE Diploma Unit

Unit Code:	QU007580		
Title:	Examination Skills		
Unit Level:	Level 3	**Unit Credit:**	3
Grading type:	Ungraded		
Academic subject content/other:	Other		
Suggested assessment details:	Refer to Assessment Grid		

This unit has 4 learning outcomes.

LEARNING OUTCOMES	**ASSESSMENT CRITERIA**
The learner will:	**The learner can:**
1 Be able to plan revision in preparation for examinations.	1.1 Produce an effective and realistic revision plan. 1.2 Set priorities in his/her revision schedule. 1.3 Assess his/her progress and adjust the plan accordingly.
2 Be able to produce answers in time constrained conditions.	2.1 Follow all instructions accurately and complete the correct number and combination of questions. 2.2 Allocate sufficient time to individual questions.
3 Be able to demonstrate competence and/or knowledge in the subject.	3.1 Include the salient aspects in answers, with the accuracy and detail required by the subject. 3.2 Show in answers an in-depth understanding of the issues/arguments/problems, as required by the subject. 3.3 Apply knowledge or learning coherently in support of arguments and/or to resolve problems.
4 Be able to maintain a level of competence in language, processes and presentation as required by the subject.	4.1 Answer in an appropriate style demonstrating careful attention to: - Grammar, punctuation and spelling.

LEARNING OUTCOMES	ASSESSMENT CRITERIA
The learner will:	**The learner can:**
	- Vocabulary and specialised terminology. - Logical structure. - Presentation. - Processes used in the subject being examined.

Access to HE Diploma Unit

Unit Code:	QU025280		
Title:	Optimising Examination Performance		
Unit Level:	Level 3	**Unit Credit:**	3
Grading type:	Ungraded		
Academic subject content/other:	Other		
Suggested assessment details:	Refer to Assessment Grid		

This unit has 4 learning outcomes.

LEARNING OUTCOMES	**ASSESSMENT CRITERIA**
The learner will:	**The learner can:**
1 Be able to effectively prepare for an examination.	1.1 Produce an effective and realistic preparation plan. 1.2 Identify priorities in the preparation plan. 1.3 Reflect on the plan's effectiveness to identify future improvements.
2 Be able to complete competent answers, which demonstrate subject knowledge.	2.1 Follow all instructions accurately to complete the correct number and combination of questions. 2.2 Include the salient aspects in answers, with the accuracy and detail required by the subject. 2.3 Show in answers an in-depth understanding of the issues / arguments/problems, as required by the subject. 2.4 Apply knowledge or learning coherently in support of arguments and/or to resolve problems.
3 Understand how to minimise common examination pitfalls.	3.1 Identify common pitfalls in examination performance. 3.2 Evaluate potential strategies to avoid examination pitfalls.
4 Know how to minimise stress to enhance examination performance.	4.1 Recognise own stressors. 4.2 Develop strategies to minimise own stressors.

Access to HE Diploma Unit

Unit Code:	QU010772		
Title:	Practical Science Skills		
Unit Level:	Level 3	**Unit Credit:**	3
Grading type:	Ungraded		
Academic subject content/other:	Other		
Suggested assessment details:	Refer to Assessment Grid		

This unit has 4 learning outcomes.

LEARNING OUTCOMES	**ASSESSMENT CRITERIA**
The learner will:	**The learner can:**
1 Be able to use a range of general laboratory equipment.	1.1 Demonstrate how to use equipment safely and effectively within a laboratory.
2 Be able to use specialised equipment in a laboratory.	2.1 Demonstrate how to carry out a scientific procedure with accuracy.
3 Know how to work with appropriate regard for safety.	3.1 Demonstrate how to carry out practical science work in a safe manner. 3.2 Assess the possible safety issues relating to a practical scientific procedure.
4 Understand how to report on scientific investigations.	4.1 Produce an experimental report with use of appropriate scientific terminology. 4.2 Identify a range of ways in which the work could be improved. 4.3 Evaluate the outcomes of the original objective, identifying further steps to be taken in the development of work.

Access to HE Diploma Unit

Unit Code:	QU025532		
Title:	Preparation for Higher Education		
Unit Level:	Level 3	**Unit Credit:**	3
Grading type:	Ungraded		
Academic subject content/other:	Other		
Suggested assessment details:	Refer to Assessment Grid		

This unit has 4 learning outcomes.

LEARNING OUTCOMES	**ASSESSMENT CRITERIA**
The learner will:	**The learner can:**
1 Understand how to identify opportunities for Higher Education.	1.1 Use information sources to research Higher Education courses. 1.2 Analyse processes and procedures necessary to gain entry to Higher Education. 1.3 Analyse information on Higher Education courses and make appropriate realistic choices. This can also include Higher and Degree Apprenticeships.
2 Understand the process of completing a Higher Education application form.	2.1 Complete an application form with excellent attention to detail, meeting a given deadline. 2.2 Summarise and evaluate personal experiences, achievement and goals, communicating these clearly in a personal statement.
3 Understand preparation required for the interview process.	3.1 Conduct further personal research into courses at relevant institutions in preparation for an interview. 3.2 Prepare provisional answers to anticipated questions, making excellent use of previous experience and recent study.
4 Understand the need to prepare for the transition to Higher Education.	4.1 Analyse the personal and academic qualities needed for successful study in Higher Education.

LEARNING OUTCOMES	ASSESSMENT CRITERIA
The learner will:	**The learner can:**
	4.2 Explain likely practical problems and barriers in moving to higher education and seek strategies for overcoming these. 4.3 Analyse the nature of study in Higher Education.

Access to HE Diploma Unit

Unit Code:	QU018352		
Title:	Presentation Skills		
Unit Level:	Level 3	**Unit Credit:**	3
Grading type:	Ungraded		
Academic subject content/other:	Other		
Suggested assessment details:	Refer to assessment grid.		

This unit has 4 learning outcomes.

LEARNING OUTCOMES	**ASSESSMENT CRITERIA**
The learner will:	**The learner can:**
1 Develop and plan a structured presentation.	1.1 Demonstrate skills to plan a timed presentation. 1.2 Develop the structure for a presentation.
2 Conduct research for a presentation from a number of sources	2.1 Identify topic and aims of research. 2.2 Select appropriate resources from different sources. 2.3 Select appropriate information pertinent to the topic
3 Demonstrate ability to deliver a presentation on a complex subject	3.1 Convey information on a chosen topic in the form of a presentation to a group. 3.2 Demonstrate effective use of audio-visual aids appropriate to the topic. 3.3 Demonstrate appropriate eye contact and body language. 3.4 Respond effectively to questions and challenges.
4 Evaluate own skills and performance.	4.1 Critically evaluate own presentation. 4.2 Critically evaluate own delivery of the presentation. 4.3 Identify strategies for improvement.

Access to HE Diploma Unit

Unit Code:	QU027084		
Title:	Presenting Information Using ICT		
Unit Level:	Level 3	**Unit Credit:**	3
Grading type:	Ungraded		
Academic subject content/other:	Other		
Suggested assessment details:	Refer to assessment grid.		

This unit has 3 learning outcomes.

LEARNING OUTCOMES	**ASSESSMENT CRITERIA**
The learner will:	**The learner can:**
1 Understand ways of using ICT to present information.	1.1 Find and analyse examples of information presented through ICT. 1.2 Explain which forms of presentation suit different types of information. 1.3 Analyse examples of information presented with clear layout and style. 1.4 Explain the importance of copyright when presenting information.
2 Be able to use a range of ICT software applications to present information.	2.1 Present text information for a given purpose using a variety of features in word processing software. 2.2 Present information for a given purpose using a variety of features in spreadsheet software. 2.3 Present information for a given purpose using a variety of features in presentation software.
3 Be able to integrate ICT software to present information.	3.1 Plan how to present integrated information using a range of ICT formats. Range should include presentation, spreadsheet and word processing software. 3.2 Present information to meet a specific brief.

LEARNING OUTCOMES	ASSESSMENT CRITERIA
The learner will:	**The learner can:**
	3.3 Save information in a structured format so it can be found easily and justify choice. E.g, Embedding a chart produced in a spreadsheet into a document or presentation

Access to HE Diploma Unit

Unit Code:	QU025796		
Title:	Professional Interpersonal Skills		
Unit Level:	Level 3	**Unit Credit:**	3
Grading type:	Ungraded		
Academic subject content/other:	Other		
Suggested assessment details:	Refer to assessment grid.		

This unit has 3 learning outcomes.

LEARNING OUTCOMES	**ASSESSMENT CRITERIA**
The learner will:	**The learner can:**
1. Understand how verbal and non-verbal communication is used in a professional interpersonal interaction.	1.1 Analyse the verbal and non-verbal skills used in a range of contexts within a given profession.
2. Understand the importance of an awareness of cultural diversity for a given profession.	2.1 Evaluate the importance of an awareness of cultural diversity across a range of contexts for a given profession.
3. Be able to evaluate own interpersonal skills, analysing strengths and areas to develop.	3.1 Evaluate own interpersonal skills, analysing strengths and areas to develop. 3.2 Evaluate ways of addressing areas to develop.

Access to HE Diploma Unit

Unit Code:	QU028487		
Title:	Promoting Wellbeing and Building Resilience		
Unit Level:	Level 3	**Unit Credit:**	3
Grading type:	Ungraded		
Academic subject content/other:	Other		
Suggested assessment details:	Refer to assessment grid.		

This unit has 4 learning outcomes.

LEARNING OUTCOMES	**ASSESSMENT CRITERIA**
The learner will:	**The learner can:**
1. Understand the physical and psychological impact of pressure and stress on mental wellbeing.	1.1 Explain the physical and psychological impact of pressure and stress on mental wellbeing.
2. Understand the connection between mental wellbeing and resilience.	2.1 Analyse the connection between mental wellbeing and resilience.
3. Understand the factors that can improve wellbeing and build resilience.	3.1 Explain factors that can improve wellbeing. 3.2 Explain factors that can negatively affect wellbeing and how to avoid them. 3.3 Explain the behaviours associated with resilience. 3.4 Explain ways to build resilience.
4. Understand how to manage an individual's mental wellbeing and the support available to them.	4.1 Evaluate the methods for managing and maintaining mental wellbeing and building resilience. To include practical and theoretical methods such as breathing exercises to reduce stress, mindfulness techniques. 4.2 Analyse the types of support available from different sources.

Access to HE Diploma Unit

Unit Code:	QU026344		
Title:	References and Reliability of Sources		
Unit Level:	Level 3	**Unit Credit:**	3
Grading type:	Ungraded		
Academic subject content/other:	Other		
Suggested assessment details:	Refer to assessment grid		

This unit has 3 learning outcomes.

LEARNING OUTCOMES	**ASSESSMENT CRITERIA**
The learner will:	**The learner can:**
1 Understand the difference between primary and secondary sources.	1.1 Evaluate the difference between primary and secondary sources.
2 Understand the value of a variety of primary source materials as evidence.	2.1 Analyse primary sources for a specific context. 2.2 Evaluate the primary sources, taking into account: authorship, purpose, audience, and underlying values and beliefs.
3 Understand the uses and limitations of secondary sources.	3.1 Compare and evaluate secondary sources considering the following: use of sources, 'facts', background material, interpretation.

Access to HE Diploma Unit

Unit Code:	QU007654		
Title:	Self Assessment and Personal Tutorial		
Unit Level:	Level 3	**Unit Credit:**	3
Grading type:	Ungraded		
Academic subject content/other:	Other		
Suggested assessment details:	Refer to assessment grid.		

This unit has 3 learning outcomes.

LEARNING OUTCOMES	**ASSESSMENT CRITERIA**
The learner will:	**The learner can:**
1 Be able to assess own strengths and weaknesses as a learner.	1.1 Identify and describe the skills and qualities developed through existing experiences that facilitate the learning process. 1.2 Identify and describe skills and qualities that require significant development. 1.3 Reflect on and use tutor feedback to inform ongoing skills development. 1.4 Set realistic targets for skills development and identify the action necessary for their development.
2 Be able to develop strategies to study successfully in the context of their personal circumstances.	2.1 Identify and describe specific problems if/when they occur. 2.2 Identify and use relevant sources of advice, guidance and information if/when needed with little prompting.
3 Be able to monitor and record own achievement and progress.	3.1 Analyse formative and summative evidence of achievement. 3.2 Keep a portfolio of all evidence of achievement and complete associated recording documentation as required.

Access to HE Diploma Unit

Unit Code:	QU011467		
Title:	Spreadsheets		
Unit Level:	Level 3	**Unit Credit:**	3
Grade Descriptors:	Ungraded		
Academic subject content/other:	Other		
Suggested assessment details:	Refer to assessment grid		

This unit has 7 learning outcomes.

LEARNING OUTCOMES	**ASSESSMENT CRITERIA**
The learner will:	**The learner can:**
1 Know how to design and store a spreadsheet.	1.1 Design a spreadsheet appropriate to a user's requirements. 1.2 Create and store the spreadsheet. 1.3 Evaluate the spreadsheet in terms of meeting the user's needs.
2 Be able to retrieve and modify an existing spreadsheet.	2.1 Modify the spreadsheet design/content in response to user feedback.
3 Know how to print a spreadsheet.	3.1 Print or display whole or part spreadsheets/formulae with a variety of print layout options.
4 Be able to enhance user readability.	4.1 Use suitable formatting options for displaying text and numeric values. 4.2 Define and use conditional formatting to limit input error and give suitable messages to users.
5 Understand spreadsheet functions.	5.1 Develop a spreadsheet solution using a range of mathematical functions.
6 Understand graphical facilities.	6.1 Use an appropriate graph type. 6.2 Draw pie, bar, line graphs with appropriate labels attached.
7 Know how to use additional features within the spreadsheet environment.	7.1 Use advanced sorting, protecting and filtering facilities on a spreadsheet. 7.2 Analyse data using pivot tables.

Access to HE Diploma Unit

Unit Code:	QU026155		
Title:	Writing Reports		
Unit Level:	Level 3	**Unit Credit:**	3
Grade Descriptors:	Ungraded		
Academic subject content/other:	Other		
Suggested assessment details:	Refer to assessment grid		

This unit has 5 learning outcomes.

LEARNING OUTCOMES	**ASSESSMENT CRITERIA**
The learner will:	**The learner can:**
1 Understand the significance of the report title in determining the content.	1.1 Analyse the requirements of the question or task. 1.2 Analyse the main points which must be covered, omitting irrelevant detail.
2 Be able to plan and present the plan for a report	2.1 Produce a plan for a report. 2.2 Present the plan for the report.
3 Be able to structure a report.	3.1 Produce an introduction which sets out how the subject will be dealt with in the report. 3.2 Use evidence and examples to strengthen information provided in the report. 3.3 Use linking sentences in paragraphs to produce a cohesive report. 3.4 Provide a conclusion which sums up the main findings of the report.
4 Be able to write in an appropriate style.	4.1 Write in a detached, balanced, and objective manner. 4.2 Write formal English avoiding emotive language and colloquialisms.
5 Know the conventions for acknowledging sources.	5.1 Acknowledge the work of other authors both during the report and in a list of references. 5.2 Use recognised approaches for acknowledging sources.

7. What to do next

For existing Centres please contact your named Development Manager or Development Officer.

For organisations, not yet registered as a Gateway Qualifications Centre please contact:

Gateway Qualifications
Gateway House
3 Tollgate Business Park
Colchester
CO3 8AB

Tel: 01206 911211

Email: enquiries@gatewayqualifications.org.uk

8. Gateway Qualifications

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