DIPLOMA GUIDE

Access to Higher Education

gateway qualifications

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Access to HE Diploma (Radiography)

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

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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 2020.

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 diploma allows learners to undertake study related to radiography and science-based topics. Learners will have the opportunity to develop skills which will enable progression to a range of degree level programmes. The mandatory units include key units for radiography. These include: Health Physics: Medical Applications for Radiography, Human Anatomy and Physiology and Physics: Radiation, Waves and Particles. Many learners join degrees related to radiography or science after following A level study, so the diploma will place the Access to HE learners on a level with those who have followed A level studies.

Ungraded units include units which will support access to higher education whilst supporting study and personal skills. There is only one mandatory unit, Preparation for Higher Education, to allow centres the flexibility to select units that are relevant to their students. Feedback from the HEI suggested that we should include communication and patient care as well as disability awareness. To ensure that learners have the best chance of a wide range of progression routes, these have been included in the ungraded units allowing learners the maximum chance to undertake science-based units as graded.

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

1.2 Nursing and Subjects and Vocations Allied to Medicine.

1.7 Target groups

a) Adults who, because of social, educational or individual circumstances may have achieved few, if any, prior qualifications and wish to progress to HE
b) Adults who have gone straight into industry (perhaps following apprenticeship routes) who wish to progress to HE.

1.8 Delivery methods

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

Face to face
Blended learning

Online delivery- although this may not be suitable for some lab-based units. Centres should review the content of the units to consider whether learners would need to conduct practical assessments which may require access to a laboratory,
Assessment Methods should include: Exam, presentation with supporting materials, report, case study, role-play, research and research diary, reflective account, risk assessment, group discussions.

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 (Radiography) learners may progress to the following:

- BSc (Hons) Diagnostic Radiography
- BSc (Hons) Therapeutic Radiography
- BSc (Hons) Biological Sciences
- BSc (Hons) Healthcare Science (Life Sciences)
- BSc (Hons) Biology
- BSc (Hons) Bioscience
- BSc (Hons) Natural Sciences
- BSc (Hons) Applied Physics
- BSc (Hons) Physics
- Therapeutic Radiographer (integrated degree) Apprenticeship programmes
- Diagnostic Radiographer (integrated degree) Apprenticeship programmes

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

Providers may ask learners for GCSE maths, science and English (grade 4 and above) and there is an expectation of some clinical work experience within a radiography department. Learners will need to check with chosen HEI. International learners will also need to contact their HEI to confirm acceptance of their qualifications.

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 e.g. 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. 15 credits must be completed from the Mandatory graded group. A maximum of 6 credits must be taken from the Research optional group and the remaining 24 credits must be taken from the Optional graded unit group. Learners must complete 15 ungraded credits, 3 credits from the Mandatory ungraded group and 12 credits from the Optional ungraded group.

Mandatory Units: Graded Academic Subject Content

Learners must achieve 15 credits from this group.

Unit Code	Unit Title	Level	Credits	Content	Grade Descriptors	Suggested Assessment methods	Assessment Volume
QU032397	Health Physics: Medical Applications for Radiography	3	6	A	2, 3, 7	Presentation with handouts Report	10 minutes 1000 words 2000 words
QU031950	Human Anatomy and Physiology	3	6	A	2, 3, 7	Exam(s) Experiment and report Report	2 hours in total closed book 300 words 750 words
QU031631	Physics: Radiation, Waves and Particles	3	3	A	1,2, 7	Exam	2 hours closed book

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
QU032216	Research: Extended Writing Project for Radiography	3	6	A	1, 2, 3, 4, 7	Practical with Report including Project Brief	3000 words
QU032218	Research: Practical Investigation Project for Radiography	3	6	A	2, 3, 4, 6, 7	Risk assessment Project diary Project proposal Research review Report including evaluation Presentation	200 words 400 words 200 words 400 words 1000 words 10 minutes including Q&A with visual aids and appropriate resources

Optional Graded Units:

Learners must achieve 24 credits from this group.

Unit Code	Unit Title	Level	Credits	Content	Grade Descriptors	Suggested Assessment methods	Assessment Volume
QU025359	Actions of Medicines on the Human Body	3	3	A	2, 5, 7	Case Study Exam	750 words 1 hour closed book
QU019000	Cell Biology and Biochemistry	3	6	A	1, 2, 7	Practical Investigation with Report Exam	750 words 2 hour closed book
QU006146	Chemical Basics and Atomic Structure	3	3	A	2, 3, 7	Exam	2 hours closed book
QU006148	Chemical Bonding, Structure and Quantity	3	3	A	1, 2, 3, 7	Exam Worksheet	1.5 hours closed book 500 words
QU006307	Fundamental Concepts and Scientific Method in Biology	3	6	A	1, 2, 3, 4, 7	Practical investigations Scientific report including at least one graph, chart and table Worksheets	1250 word scientific report based on investigations, including at least one graph, chart and table 750 words
QU032681	Human Body and Diseases	3	6	A	1, 2, 4, 7	Report Case study Presentation and verbal Q&A	1500 words 750 words 5 minutes plus 5 minutes Q&A
QU030718	Introduction to Genetics	3	3	A	1, 2, 7	Report	1500 words

Unit Code	Unit Title	Level	Credits	Content	Grade Descriptors	Suggested Assessment methods	Assessment Volume
QU025706	Physical Science - Environmental Health and Medical Physics	3	3	A	1, 2, 7	Individual presentation Supporting materials Short answer questions	10 minutes 500 words 500 words
QU031627	Physics and the Senses	3	3	A	1, 2, 7	Exam	2 hours closed book
QU007432	Quantitative Methods - Algebra and Graphs	3	3	A	3, 5, 7	Exam	2 hours closed book
QU007442	Quantitative Methods - Statistics	3	3	A	3, 4, 5, 7	Data analysis short answer questions Create charts and graphs Worksheets Case study analysis of data Tree diagrams	500 words 500 words 250 words 250 words
QU032683	Technology within Radiography	3	3	A	1, 2, 7	Exam Report	45 minutes closed book 750 words
QU017109	The Endocrine System	3	3	A	1, 2, 7	Exam	2 hours closed book
QU019004	The Human Skeleton and Muscles	3	3	A	1, 2, 7	Exam Case study	45 minutes closed book 750 words

Mandatory Units: Ungraded

Learners must achieve 3 credits from this group.

Unit Code	Unit Title	Level	Credits	Content	Suggested Assessment methods	Assessment Volume
QU025532	Preparation for Higher Education	3	3	O	Research, course and decision (review) Application Form Personal Statement Prepared Q&A	500 words Application Form 750 words Prepared Q&A 250 words

Optional Units: Ungraded

Learners must achieve 12 credits from this group.

Unit Code	Unit Title	Level	Credits	Content	Suggested Assessment methods	Assessment Volume
QU018346	Academic Reading Skills	3	3	O	Exam	1.5 hours closed book
QU025276	Academic Writing Skills	3	3	O	Notes from a range of sources Essay plan Essay	300 words 200 words 1000 words
QU007560	Communication - Speaking and Listening	3	3	O	Presentation Discussion	15 mins 20 mins

Unit Code	Unit Title	Level	Credits	Content	Suggested Assessment methods	Assessment Volume
					Supporting Materials Peer Evaluation Self-Evaluation	250 words 150 words 250 words
QU032674	Inclusivity and Disability	3	3	O	Exam Presentation with supporting notes	1 hour closed book 10 minutes
QU013859	Mathematics for Science	3	3	A	Exam	1.5 hour open book
QU025280	Optimising Examination Performance	3	3	O	Examination preparation plan Exam paper from another unit Reflective journal	500 words 1-2 hours 800 words
QU010772	Practical Science Skills	3	3	O	Investigation Report Reflection	Practical investigation 750 words 250 words
QU027084	Presenting Information Using ICT	3	3	O	Notes from a range of sources Presentation Presentation lecture notes and handouts	300 words Presentation 200 words
QU032277	Principles of Patient Care	3	3	A	Report	1500 words
QU025796	Professional Interpersonal Behaviours	3	3	O	SWOT Analysis Case Study Reflective Account	250 words 750 words 500 words

Unit Code	Unit Title	Level	Credits	Content	Suggested Assessment methods	Assessment Volume
QU028487	Promoting Wellbeing and Building Resilience	3	3	O	Report	1500 words
QU026344	References and Reliability of Sources	3	3	O	Literature review	1500 words including recognised form of referencing and bibliography
QU031633	Study Skills for Higher Education	3	3	O	Report Summary Samples of notes Study timetable Revision timetable Essay in controlled conditions Presentation	500 words Approx. 150 words 2 x samples of notes To cover 2 weeks To cover 2 weeks 1.5.hour 10 minutes including visual aids and appropriate resources
QU033854	Sustainability Project	3	3	A	Report, including project plan and reflection	1000 words
QU033880	The Fundamentals of Environmental Sustainability	3	3	A	Report	1500 words

3.3 Additional completion requirements

Some HE institutions may have minimum entry requirements of GCSE maths, science and English (grade 4 and above) and there is an expectation of clinical work experience within a radiography department. Learners will need to confirm with their chosen HEI. International learners will also need to contact their HEI to confirm acceptance of their qualifications.

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.gatewayqualifications.org.uk/access-diploma-specification-2020/

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:

https://www.qaa.ac.uk/en/access-to-he/access-to-he-resources#

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.gatewayqualifications.org.uk/principles-for-admission-to-access-to-he-diplomas/
- 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

Learners will need access to laboratories for some of the units.

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

Title:	Health Physics: Medical Applications for Radiography		
Unit Code:	QU032397		
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 Understand methods used to image the human body for medical diagnosis.	1.1 Explain the principles of imaging using a range of imaging techniques. 1.2 Summarise and evaluate the advantages and disadvantages of the imaging methods. 1.3 Carry out a simple experiment modelling the behaviour of X-rays using light. 1.4 Write a scientific report of the experiment.
2 Understand methods of medical treatment using ionising radiation and ultrasound.	2.1 Explain the use of ionising radiation and ultrasound in medical treatment.

3	Understand the hazards to staff and patients associated with medical imaging technologies.	3.1	Describe and quantify the effects of ionising radiation on tissues and organs.
		3.2	Explain the hazards of the strong magnetic fields in the vicinity of an MRI scanner.
		3.3	Summarise key points of legislation relevant to radiation exposure within radiography disciplines.
4	Understand safety procedures and equipment used to monitor and reduce the hazards from ionising radiation.	4.1	Describe and evaluate methods of measuring the radiation dose received by medical staff and patients.
		4.2	Describe and evaluate equipment and procedures used to minimise the hazards from radiation in hospitals.
5	Recognise the benefits of modern imaging techniques in treating injuries and diseases.	5.1	Describe and evaluate the use of a given modern imaging technique in a given treatment.

Access to HE Diploma Unit

Title:	Human Anatomy and Physiology		
Unit Code:	QU031950		
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 Understand the structure and function of the heart and circulatory system.	1.1 Compare the main components of the blood. 1.2 Analyse and determine the basic anatomy of the heart. 1.3 Explain the anatomy of arteries, veins and capillaries. 1.4 Explain the function of the circulatory system with reference to the main blood vessels.
2 Understand the structure and function of the digestive system.	2.1 Analyse the gross anatomy of the digestive system. 2.2 Define, explain and differentiate the overall function of each part of the digestive system. 2.3 Analyse the different types of enzymes found in the digestive system. 2.4 Investigate and analyse one example of enzyme action experimentally.
3 Understand the structure and function of the skeleton.	3.1 Identify and describe the main parts of the skeleton - axial appendicular ribcage, girdles and limbs Only a few common bone names should be introduced. 3.2 Describe, differentiate and analyse the nature of position of the various joints.

		3.3	Discuss and evaluate the movement brought about at joints. e.g. forearm
4	Understand the structure and function of the respiratory system.	4.1	Describe the gross and microscopic structure of the respiratory system.
		4.2	Describe breathing in terms of changes in volume and pressure.
		4.3	Identify the adaptations of the gas exchange surface.
5	Understand the structure and function of the kidney in excretion.	5.1	Describe the gross and microscopic structure involved in the formation of urine in the kidney.
		5.2	Describe the process involved in the formation of urine in the kidney.
		5.3	Explain the role of ADH in the process of osmoregulation.

Access to HE Diploma Unit

Title:	Physics: Radiation, Waves and Particles		
Unit Code:	QU031631		
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 4 learning outcomes.

LEARNING OUTCOMES	ASSESSMENT CRITERIA
The learner will:	**The learner can:**
1 Know how electrons behave in magnetic and electric fields	1.1 Explain the behaviour of charged particles moving normally to a: a) uniform magnetic field b) uniform electric field 1.2 Solve simple problems involving electrons moving normally to a uniform magnetic and electric fields.
2 Understand waves used in radiography.	2.1 Define amplitude, wavelength and frequency. 2.2 Explain the use of ultrasound in diagnostic medicine, making reference to amplitude, wavelength and frequency.
3 Understand ionising and non ionising radiation.	3.1 Explain the properties of the seven basic types of electromagnetic waves. 3.2 Distinguish between the properties of alpha, beta and gamma radiation.
4 Understand environmental radiation.	4.1 Explain sources of environmental radiation: a) natural sources b) man-made sources. 4.2 Analyse health effects of environmental radiation.

Graded Research Units

Access to HE Diploma Unit

Title:	Research: Extended Writing Project for Radiography		
Unit Code:	QU032216		
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 • 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 an extended writing project.	1.1 Identify and agree an extended writing project located within a knowledge domain relevant to the named Diploma. 1.2 Develop a project brief. 1.3 Identify any ethical, practical or safety issues, explaining how these will be managed/overcome. 1.4 Maintain a record of project progress through all stages of research, development and completion.
2 Be able to conduct research.	2.1 Identify and conduct in-depth research from a wide range of sources.
3 Be able to develop ideas.	3.1 Select appropriate information and/or evidence. 3.2 Analyse findings and develop ideas. 3.3 Produce a body of work which meets the brief and includes complex ideas.
4 Be able to present the project.	4.1 Write coherently in a conventional style, appropriate to the knowledge domain. 4.2 Reference all sources using a recommended style of referencing.

5	Be able to evaluate own writing project.	5.1 5.2	Evaluate own writing in relation to project brief. Identify recommendations for the future.

Access to HE Diploma Unit

Title:	Research: Practical Investigation Project for Radiography		
Unit Code:	QU032218		
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.
3 Know how to present the project.	3.1	Present the body of work in a style appropriate to the knowledge domain with clear conclusions.
	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.

Optional Units: Graded Academic Subject Content

Access to HE Diploma Unit

Title:	Actions of Medicines on the Human Body		
Unit Code:	QU025359		
Unit Level:	Level 3	**Unit Credit:**	3
Grading type:	Graded		
Grade Descriptors:	• GD2-Application of knowledge • GD5-Communication and presentation • GD7-Quality		
Academic subject content/other:	Academic subject content		
Suggested Assessment details:	750 word case study, 1 hour closed book exam		

This unit has 3 learning outcomes.

LEARNING OUTCOMES		ASSESSMENT CRITERIA	
The learner will:		**The learner can:**	
1	Understand the basic principles of how medicines work in the human body.	1.1	Explain, with examples, how medicines act in the body: • agonists • antagonists • drugs acting on enzyme systems • ion channels modulators/blockers
2	Know about the uses and limitations of medicines, including their management in practice.	2.1	Justify reasons for using different routes to administer medicines.
		2.2	Explain common drug-drug and drug-food interactions.
		2.3	Analyse ways of maximising the benefits of treatment and minimising any adverse effects.
3	Be able to use standard pharmacy resources to research answers to pharmaceutical queries.	3.1	Select and use appropriate sources of information to respond to a pharmaceutical query.

Access to HE Diploma Unit

Title:	Cell Biology and Biochemistry		
Unit Code:	QU019000		
Unit Level:	Level 3	**Unit Credit:**	6
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 5 learning outcomes.

LEARNING OUTCOMES	ASSESSMENT CRITERIA
The learner will:	**The learner can:**
1 Know the structure of eukaryotic cells.	1.1 Explain the structure of eukaryotic cells. Identify from electron micrographs: • the nucleus • cell membrane • endoplasmic reticulum • ribosomes • mitochondria • Golgi body • lysosomes. 1.2 Estimate the size of cells and organelles from microscope study or photographs. 1.3 Explain the levels of organisation in multicellular organisms, including the importance of cell specialisation with reference to a specific tissue. 1.4
2 Understand the functions of cell organelles.	2.1 Explain the links between the functions and structure of: • the nucleus • endoplasmic reticulum • ribosomes • mitochondria • Golgi body • lysosomes.
3 Understand the structure and function of biological molecules.	3.1 With reference to carbohydrates, proteins and lipids

			a) recognise the structure of the molecules b) relate the structure of the molecules to their function c) explain formation and breakdown of polymers.
4	Understand how materials are exchanged across the cell membrane.	4.1	Analyse the movement of substances across the cell membrane by: • diffusion • osmosis • active transport • pinocytosis.
		4.2	Explain how the exchange of materials across the cell membrane is related to its structure.
5	Understand the mode of action of enzymes.	5.1	Explain the structure of enzymes, including how their structure is linked to their function.
		5.2	Explain the concept of activation energy.
		5.3	Evaluate models of enzyme action: a) lock and key b) induced fit.
		5.4	Explain the effect of external factors on enzyme activity.

Access to HE Diploma Unit

Title:	Chemical Basics and Atomic Structure		
Unit Code:	QU006146		
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 5 learning outcomes.

LEARNING OUTCOMES	ASSESSMENT CRITERIA
The learner will:	**The learner can:**
1 Understand different types of substance.	1.1 Use the terms 'element' and 'compound' correctly in context.
2 Understand the particulate nature of matter.	2.1 Use the terms 'atom', 'molecule' and 'ion' correctly in context.
3 Understand and demonstrate the process of chemical change.	3.1 Recognise that chemical changes have occurred from observations and equations. 3.2 Use balanced equations to illustrate chemical change.
4 Know the structure of the nuclear atom.	4.1 Name the three subatomic particles and state their mass and charge. 4.2 Use 'mass number' and 'atomic' number to describe the numbers of particles in an atom. 4.3 Recognise the existence of isotopes. 4.4 Define and use the term 'Relative Atomic Mass'.
5 Be able to derive the electron configuration of atoms.	5.1 Derive the electron configurations in terms of s, p, d orbitals of atoms with atomic numbers 1 to 36.

Access to HE Diploma Unit

Title:	Chemical Bonding, Structure and Quantity		
Unit Code:	QU006148		
Unit Level:	Level 3	**Unit Credit:**	3
Grading type:	Graded		
Grade Descriptors:	• GD1-Understanding the subject • 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 4 learning outcomes.

LEARNING OUTCOMES	ASSESSMENT CRITERIA
The learner will:	**The learner can:**
1 Understand and explain chemical bonding.	1.1 Explain covalent bonding in terms of electron sharing and pairing. 1.2 Explain ionic bonding in terms of electron transfer. 1.3 Explain metallic bonding. 1.4 Draw 'dot & cross' diagrams for covalent and ionic compounds.
2 Understand physical properties of substances and their structures showing an awareness of the existence of intermolecular forces.	2.1 Explain the physical properties of substances in terms of their structures and the types of attractive forces operating in them. 2.2 Explain physical properties in terms of weak intermolecular forces.
3 Be able to apply the concept of quantity.	3.1 Use units of mass, volume and amount as appropriate.
4 Be able to apply and understand the mole concept.	4.1 Convert mass to amount and vice-versa. 4.2 Calculate reacting quantities from chemical equations.

Access to HE Diploma Unit

Title:	Fundamental Concepts and Scientific Method in Biology		
Unit Code:	QU006307		
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 • 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 scientific terminology.	1.1 Explain appropriate scientific terminology accurately.
2 Understand a range of biological processes.	2.1 Explain diffusion and osmosis with reference to a range of examples. 2.2 Analyse the importance of surface area to volume ratio in biology using appropriate examples. 2.3 Explain the concept of negative feedback in biology using two examples.
3 Understand the concept of units and scales in biology.	3.1 Differentiate the scale of measurement in various biological structures. 3.2 Measure, reform and calculate magnifications and sizes from diagrams and micrographs. 3.3 Diagnose various units of measurement and express them in different ways.
4 Know how to tabulate plot and interpret data.	4.1 Apply data in fully labelled tables manually and using basic excel functions.

	4.2	Develop graphs from tabulated data both manually and using excel.
	4.3	Calculate and explain the importance of rates of change.
5 Understand scientific reporting.	5.1	Demonstrate how to record methods and results clearly.
	5.2	Interpret and explain results.
	5.3	Evaluate work (discuss limitations of method, suggest improvements and further experiments).
6 Be able to use a range of apparatus in biological investigations.	6.1	Prepare specimens for and use a light microscope on high power to produce accurate scaled drawings.
	6.2	Demonstrate use of specialised apparatus competently to gain comprehensive data in an experiment.
	6.3	Demonstrate use of common lab apparatus safely and competently in a range of situations.

Access to HE Diploma Unit

Title:	Fundamental Concepts and Scientific Method in Biology		
Unit Code:	QU006307		
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 • 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 scientific terminology.	1.1 Explain appropriate scientific terminology accurately.
2 Understand a range of biological processes.	2.1 Explain diffusion and osmosis with reference to a range of examples. 2.2 Analyse the importance of surface area to volume ratio in biology using appropriate examples. 2.3 Explain the concept of negative feedback in biology using two examples.
3 Understand the concept of units and scales in biology.	3.1 Differentiate the scale of measurement in various biological structures. 3.2 Measure, reform and calculate magnifications and sizes from diagrams and micrographs. 3.3 Diagnose various units of measurement and express them in different ways.
4 Know how to tabulate plot and interpret data.	4.1 Apply data in fully labelled tables manually and using basic excel functions. 4.2 Develop graphs from tabulated data both manually and using excel.

	4.3	Calculate and explain the importance of rates of change.
5 Understand scientific reporting.	5.1	Demonstrate how to record methods and results clearly.
	5.2	Interpret and explain results.
	5.3	Evaluate work (discuss limitations of method, suggest improvements and further experiments).
6 Be able to use a range of apparatus in biological investigations.	6.1	Prepare specimens for and use a light microscope on high power to produce accurate scaled drawings.
	6.2	Demonstrate use of specialised apparatus competently to gain comprehensive data in an experiment.
	6.3	Demonstrate use of common lab apparatus safely and competently in a range of situations.

Access to HE Diploma Unit

Title:	Human Body and Diseases		
Unit Code:	QU032681		
Unit Level:	Level 3	**Unit Credit:**	6
Grading type:	Graded		
Grade Descriptors:	• GD1-Understanding the subject • GD2-Application of knowledge • GD4-Use of information • 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 how the body fights infection.	1.1 Explain the role of antigens and antibodies in the immune system. 1.2 Discuss the principles of vaccination and evaluate evidence relating to risks and the benefits of mass vaccination.
2 Understand how cancer affects the human body.	2.1 Identify sites and analyse potential causes of cancer. 2.2 Analyse how lifestyle choices can impact on the development of cancers.
3 Understand how micro-organisms can affect the human body.	3.1 Explain the structure and function of prokaryotic cells and their organelles. 3.2 Evaluate the evidence for links between the overuse of antibiotics and bacterial resistance to antibiotics. 3.3 Analyse how infection control can help manage the spread of micro-organisms.

Access to HE Diploma Unit

Title:	Introduction to Genetics		
Unit Code:	QU030718		
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 the processes and importance of mitosis and meiosis.	1.1 Explain the stages of mitosis and meiosis. 1.2 Explain the significance of the differences between mitosis and meiosis.
2 Understand the composition, structure and role of nucleic acids in the replication of DNA and the process of protein synthesis.	2.1 Explain the structure and method of replication of DNA. 2.2 Explain the processes of and factors influencing gene expression. 2.3 Explain protein synthesis.
3 Understand the genetic basis of inheritance.	3.1 Analyse how genetic problems involving monohybrid, co-dominant and sex-linked inheritance may be solved. 3.2 Discuss specific examples of chromosome mutations, explaining their significance.

Access to HE Diploma Unit

Title:	Physical Science - Environmental Health and Medical Physics		
Unit Code:	QU025706		
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 Explain x-rays and alpha, beta and gamma radiation. 3.3 Discuss the commercial and medical uses of radiation.

Access to HE Diploma Unit

Title:	Physics and the Senses		
Unit Code:	QU031627		
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 Know the nature of electromagnetic radiation including light.	1.1 Explain differences between the way that sound and light are transmitted. 1.2 Explain the relationship between the frequency, wavelength and speed of a wave. 1.3 Use the relationship between the frequency, wavelength and speed of a wave to solve problems for sound and light. 1.4 Explain refraction and reflection of light and sound. 1.5 Solve problems using Snell's Law.
2 Understand how the eye works.	2.1 Explain the purpose and functions of parts of the eye. 2.2 Explain the physics systems in the eye related to a) refraction of light b) transduction of light. 2.3 Interpret data relating to the trichromatic theory and use this to explain colour vision.
3 Understand the role of the ear in hearing.	3.1 Describe how the parts of the human ear propagate sound. 3.2 Explain how sound is conducted within the ear.

Access to HE Diploma Unit

Title:	Quantitative Methods - Algebra and Graphs		
Unit Code:	QU007432		
Unit Level:	Level 3	**Unit Credit:**	3
Grading type:	Graded		
Grade Descriptors:	• GD3-Application of skills • GD5-Communication and presentation • 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:**
1.1 Understand how to calculate with basic algebraic expressions.	1.1 Perform the correct procedure in solving problems when dealing with addition, subtraction, multiplication and division with algebraic expressions and fractions. 1.2 Use brackets correctly in the extraction of common factors for complex expression. 1.3 Perform change of subject of complex formulas.
2 Understand how to create and solve equations from given information.	2.1 Justify solving simultaneous equations from given problems. 2.2 Solve linear equations graphically and inequalities correctly and accurately. 2.3 Solve quadratic equations graphically and algebraically.
3 Understand linear graphs through examples.	3.1 Construct and interpret algebraic graphs and understand and derive the meaning of m and c in the equation to a straight line (y=mx+c).

Access to HE Diploma Unit

Title:	Quantitative Methods - Statistics		
Unit Code:	QU007442		
Unit Level:	Level 3	**Unit Credit:**	3
Grading type:	Graded		
Grade Descriptors:	• GD3-Application of skills • GD4-Use of information • GD5-Communication and presentation • 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 organise and present data.	1.1 Identify data as qualitative, quantitative, discrete or continuous. 1.2 Select the dominant features of data and suggest plausible interpretations. 1.3 Construct suitable charts and diagrams including histograms and line graphs with suitable scales, state the advantages and disadvantages of a wide range of diagrams.
2 Know how to calculate and use averages.	2.1 Calculate the mean, median and mode of grouped data. 2.2 Choose an appropriate average and justify the choice (e.g. Exam marks - mean; Exam grades - median; qualitative data - mode.
3 Know how to calculate and use measures of spread.	3.1 Calculate standard deviation of raw data and grouped data. 3.2 Use mean and standard deviation to compare different data sets.
4 Be able to use bivariate data.	4.1 Calculate a coefficient of correlation (e.g. Spearman or Product moment). 4.2 Make statements about the possible causal relationship between variables with strong correlation.

5	Be able to calculate probability.	5.1 Calculate the probability of combined events. 5.2 Construct tree diagrams and use them to solve problems involving combined events. 5.3 Identify events which are independent or mutually exclusive.

Access to HE Diploma Unit

Title:	Technology within Radiography		
Unit Code:	QU032683		
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 the fundamental concepts of electricity.	1.1 Explain the relationship between current, voltage and resistance. 1.2 Calculate the electrical resistance of various components. 1.3 Explain how electricity is generated.' 1.4 Evaluate how electrical concepts are put to use in a given medical device or procedure.
2 Understand the source of light and the source distance relationship.	2.1 Explain the inverse square law.
3 Undertand how technology is developing within radiography.	3.1 Evaluate how technological advances have impacted on radiography. 3.2 Analyse how artificial intelligence could further develop practice within both diagnostic and therapeutic radiography.

Access to HE Diploma Unit

Title:	The Endocrine System		
Unit Code:	QU017109		
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 5 learning outcomes.

LEARNING OUTCOMES	ASSESSMENT CRITERIA
The learner will:	**The learner can:**
1 Know the structure of the endocrine system.	1.1 Describe the positions of the main endocrine organs of the body.
2 Know the main features of hormone action.	2.1 Explain the difference in action between two main classes of hormones. 2.2 Compare and contrast the action of hormones with neurones.
3 Understand the action of the pituitary gland.	3.1 Explain how the pituitary gland regulates other glands. 3.2 Describe the link between the pituitary and the nervous system.
4 Understand the action of the adrenal gland.	4.1 Explain the circumstances under which adrenaline is produced. 4.2 Describe some of the hormones of the adrenal gland and their effects. 4.3 Describe the role the adrenal gland plays in maintaining homeostasis.
5 Understand the role of hormones in the control of blood sugar levels.	5.1 Explain the role of insulin and glucagon in the control of blood glucose.

Access to HE Diploma Unit

Title:	The Human Skeleton and Muscles		
Unit Code:	QU019004		
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 the function of the human skeletal system.	1.1 Explain the structure of the human skeleton, including how this relates to its functions. 1.2 Explain different types of joints, exploring the importance of their properties. 1.3 Explain the structure of a synovial joint, including the roles of the component parts. 1.4 Explain the properties and functions of tendons, ligaments and cartilage.
2 Understand the function of the human muscular system.	2.1 Explain and critically compare the properties of different types of muscle, exploring the sliding filament hypothesis of muscle contraction. 2.2 Explain how antagonistic muscles bring about extension and flexion of either the elbow joint or the knee joint.
3 Understand the importance of maintaining the health of the muscular and skeletal systems.	3.1 Analyse the effects on the muscular and skeletal systems of: a) poor lifting techniques b) bad posture. 3.2 Evaluate the effects of skeletal disease on the healthy functioning of the skeletal system.

Mandatory Units: Ungraded

Access to HE Diploma Unit

Title:	Preparation for Higher Education		
Unit Code:	QU025532		
Unit Level:	Level 3	**Unit Credit:**	3
Grading type:	Ungraded		
Grade Descriptors:	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.
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.
		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.

Indicative Content: Preparation for Higher Education
Learning Outcome 1: This can also include Higher and Degree Apprenticeships.
Learning Outcome 2: N/A
Learning Outcome 3: N/A
Learning Outcome 4: N/A

Optional Units: Ungraded

Access to HE Diploma Unit

Title:	Academic Reading Skills		
Unit Code:	QU018346		
Unit Level:	Level 3	**Unit Credit:**	3
Grading type:	Ungraded		
Grade Descriptors:	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

Title:	Academic Writing Skills		
Unit Code:	QU025276		
Unit Level:	Level 3	**Unit Credit:**	3
Grading type:	Ungraded		
Grade Descriptors:	Ungraded		
Academic subject content/other:	Other		
Suggested Assessment details:	Notes from a range of sources (300 words), essay plan (200 words), essay (1,000 words)		

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

Title:	Communication - Speaking and Listening		
Unit Code:	QU007560		
Unit Level:	Level 3	**Unit Credit:**	3
Grading type:	Ungraded		
Grade Descriptors:	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 sensitively or inviting others to contribute their views. 2.4 Respond appropriately to questions.

Access to HE Diploma Unit

Title:	Inclusivity and Disability		
Unit Code:	QU032674		
Unit Level:	Level 3	**Unit Credit:**	3
Grading type:	Ungraded		
Grade Descriptors:	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 definitions of disability and everyday use of terminology related to disability.	1.1 Summarise definitions of disability and everyday use of terminology related to disability. 1.2 Compare medical and social models of disability.
2 Understand theoretical approaches and assumptions that underpin definitions of disability.	2.1 Evaluate the theoretical approaches and assumptions that underpin definitions of disability.
3 Understand features of disability according to social class, gender, age and ethnicity.	3.1 Evaluate features of disability according to social class, gender, age and ethnicity.
4 Understand legislation designed to support those with disability.	4.1 Summarise legislation on disability.

Access to HE Diploma Unit

Title:	Mathematics for Science		
Unit Code:	QU013859		
Unit Level:	Level 3	**Unit Credit:**	3
Grading type:	Ungraded		
Grade Descriptors:	Ungraded		
Academic subject content/other:	Academic Subject Content		
Suggested Assessment details:	Exam - 1.5 hours open book		

This unit has 5 learning outcomes.

LEARNING OUTCOMES	ASSESSMENT CRITERIA
The learner will:	**The learner can:**
1. Understand how to perform calculations with integers, decimals and fractions.	1.1 Make calculations involving integers, decimals and fractions with or without a calculator. 1.2 Give answers to calculations correct to a specified number of decimal places or significant figures. Using accuracy appropriate to the nature of the data.
2. Understand how to perform calculations with percentages.	2.1 With and without a calculator, convert between percentages, decimals and fractions. 2.2 Express one quantity as a percentage of another. 2.3 Find a percentage of a quantity. 2.4 Calculate percentage increase and decrease; direct and inverse problems.
3. Understand how to use standard form, indices and roots.	3.1 Make conversions between ordinary numbers and standard form. 3.2 Use the exponential key and interpret calculator displays. 3.3 Make calculations involving indices and roots. 3.4 Apply index laws to simplify expressions involving powers and roots.

4.	Understand how to evaluate formulae.	4.1	Evaluate formulae by substitution using the full range of functions on a scientific calculator.
5.	Understand how to calculate area and volume.	5.1	Calculate the surface area of plane geometric figures and the volume of complex geometric figures.

Access to HE Diploma Unit

Title:	Optimising Examination Performance		
Unit Code:	QU025280		
Unit Level:	Level 3	**Unit Credit:**	3
Grading type:	Ungraded		
Grade Descriptors:	Ungraded		
Academic subject content/other:	Other		
Suggested Assessment details:	Examination preparation plan (500 words), examination paper from another unit (1-2 hours), reflective journal (800 words).		

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

Title:	Practical Science Skills		
Unit Code:	QU010772		
Unit Level:	Level 3	**Unit Credit:**	3
Grading type:	Ungraded		
Grade Descriptors:	Ungraded		
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 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

Title:	Presenting Information Using ICT		
Unit Code:	QU027084		
Unit Level:	Level 3	**Unit Credit:**	3
Grading type:	Ungraded		
Grade Descriptors:	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.

	3.3	Save information in a structured format so it can be found easily and justify choice.

Indicative Content: Presenting Information Using ICT
Learning Outcome 1: N/A
Learning Outcome 2: N/A
Learning Outcome 3: E.g. embedding a chart produced in a spreadsheet into a document or presentation.

Access to HE Diploma Unit

Title:	Principles of Patient Care		
Unit Code:	QU032277		
Unit Level:	Level 3	**Unit Credit:**	3
Grading type:	Ungraded		
Grade Descriptors:	Ungraded		
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 Understand the values and principles set out within a professional code of conduct.	1.1 Explain the principles of good practice based on the values identified within your professional code upon which interactions within your role are based. *This includes the promotion of equality, diversity and inclusive practices, confidentiality, safeguarding and effective communication. Also consider the NHS Values.* 1.2 Explain the impact of these principles of good practice on the patient, in particular in terms of patient empowerment.
2 Understand and maintain confidentiality of information.	2.1 Identify key points in legislation/charters relating to confidentiality. *This should include reference to the current data protection legislation* 2.2 Evaluate the effectiveness of methods of giving and receiving information required by your role. 2.3 Evaluate the effectiveness of methods of storing information required by your role.
3 Understand and promote anti-discriminatory practice.	3.1 Explain own contribution to promoting anti-discriminatory practice. 3.2 Explain how individuals' perspectives are taken into account when providing services.

4	Understand and support individual rights and choice in own setting.	4.1 4.2	Differentiate between personal rights and choices and legal rights. Explain factors which potentially affect patients' rights. *This can include abuse, risks, nature of patient group and socio-economic and cultural factors.*
5	Understand the importance of the individual's personal beliefs.	5.1	Identify ways in which beliefs and preferences may affect the care delivered.

Access to HE Diploma Unit

Title:	Professional Interpersonal Skills		
Unit Code:	QU025796		
Unit Level:	Level 3	**Unit Credit:**	3
Grading type:	Ungraded		
Grade Descriptors:	Ungraded		
Academic subject content/other:	Academic subject content		
Suggested Assessment details:	SWOT analysis - 250 words, case study - 750 words, reflective account - 500 words		

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

Title:	Promoting Wellbeing and Building Resilience		
Unit Code:	QU028487		
Unit Level:	Level 3	**Unit Credit:**	3
Grading type:	Ungraded		
Grade Descriptors:	Ungraded		
Academic subject content/other:	Other		
Suggested Assessment details:	1500 word report		

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

Title:	References and Reliability of Sources		
Unit Code:	QU026344		
Unit Level:	Level 3	**Unit Credit:**	3
Grading type:	Ungraded		
Grade Descriptors:	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

Title:	Study Skills for Higher Education		
Unit Code:	QU031633		
Unit Level:	Level 3	**Unit Credit:**	3
Grading type:	Ungraded		
Grade Descriptors:	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 manage and organise own study time.	1.1 Produce a personal schedule of study to accommodate own time constraints. 1.2 Devise a strategy for prioritising and organising coursework to meet deadlines.
2 Know how to prepare for exams effectively	2.1 Prepare a revision timetable for exams 2.2 Evaluate strategies to support effective revision based on own learning preferences.
3 Be able to retrieve information from reliable sources.	3.1 Retrieve information from a range of reliable written sources using a range of reading skills. 3.2 Scan source material, evaluating information to create accurate and detailed notes to suit purpose. 3.3 Demonstrate the use of a recognised referencing system for retrieved information.
4 Present information using a range of approaches.	4.1 Present information using different formats for academic purposes. *This must include academic speaking.*

Access to HE Diploma Unit

Title:	Sustainability Project		
Unit Code:	QU033854		
Unit Level:	Level 3	**Unit Credit:**	3
Grading type:	Ungraded		
Grade Descriptors:	Ungraded		
Academic subject content/other:	Academic subject content		
Suggested Assessment details:	Report, including project plan and reflection – 1,000 words		

This unit has 3 learning outcomes.

LEARNING OUTCOMES	ASSESSMENT CRITERIA
The learner will:	**The learner can:**
1. Be able to plan a project to promote sustainability within a specific sector.	1.1 Identify a project to promote sustainability within a chosen sector, justifying your choice. 1.2 Produce a project plan for own project including: • Aims and objectives • Time scales • Methods • Resources required • Any health and safety considerations.
2. Be able to carry out a sustainability project.	2.1 Carry out a sustainability project. 2.2 Produce a report on the findings of the sustainability project.
3. Be able to review the success of a sustainability project.	3.1 Evaluate the extent to which the project has met the aim and objectives.

	3.2	Evaluate the extent to which the project has met the aim and objectives.

Access to HE Diploma Unit

Title:	The Fundamentals of Environmental Sustainability		
Unit Code:	QU033880		
Unit Level:	Level 3	**Unit Credit:**	3
Grading type:	Ungraded		
Grade Descriptors:	Ungraded		
Academic subject content/other:	Academic subject content		
Suggested Assessment details:	Report – 1500 words		

This unit has 4 learning outcomes.

LEARNING OUTCOMES	ASSESSMENT CRITERIA
The learner will:	**The learner can:**
1. Know the importance of sustainability within a specific sector.	1.1 Explain what is meant by sustainability. 1.2 Explain the importance of supporting environmental sustainability within a chosen sector.
2. Know how environmental sustainability can be supported within the chosen sector.	2.1 Describe environmental issues relevant to a chosen sector. 2.2 Describe the impact of the chosen sector on the environment. 2.3 Explain how these environmental issues could be minimised within a chosen sector. 2.4 Analyse factors to consider when working towards environmental sustainability in a chosen sector.

3. Know how the 3 Rs of sustainability can be applied within the chosen sector.	3.1 Explain the 3 Rs of sustainability. 3.2 Analyse ways that a chosen sector can implement the 3 Rs of sustainability.
4. Understand the importance of waste management within the chosen sector.	4.1 Explain the importance of having a waste management strategy within a chosen sector. 4.2 Explain environmental hazards or risks that could be caused by poor waste management within a chosen sector.

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:

Website: www.gatewayqualifications.org.uk

Tel: 01206 911211

Email: enquiries@gatewayqualifications.org.uk

8. Gateway Qualifications

Gateway Qualifications, a not for profit registered charity, is an Awarding Organisation and authorised Access Validating Agency based in Colchester. We work with learning providers and industry experts to design and develop qualifications that benefit the learner and the employer.

We support flexible, responsive and quality assured learning opportunities whether it's in the classroom, at work, in the community or through distance learning.

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enquiries@gatewayqualifications.org.uk
www.gatewayqualifications.org.uk
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