DIPLOMA GUIDE



gateway gateway

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Access to HE Diploma (IT and Product Design)



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# About this Access to HE Diploma guide

This qualification specification is intended for tutors, assessors, internal quality assurers, centre quality managers and other staff within Gateway Qualifications recognised centres and/or prospective centres.

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

The specification should be read in conjunction with the Gateway Qualifications Centre Handbook and other publications available on the website which contain more detailed guidance on assessment and verification practice.

In order to offer the qualification/s within this specification you must be a Gateway Qualifications recognised centre and be approved to deliver the qualification/s.

If your centre is not yet recognised and/or not yet approved to deliver the qualification, please contact our Development Team:

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 learner 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 diploma allows learners to undertake study related to IT and product design. Learners will have the opportunity to develop skills which will enable progression to a range of degree level programmes within the sector. Many learners join these types of degrees 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.

Learners will complete mandatory units which cover an introduction to CAD and programming as well as 3D design. They will be able to research an area of interest to them in more depth. They will study a range of optional units covering electronics, mechanics, understanding manufacturing processes, graphic design and software as well as a unit which explores the impact of robotics within the industry and learners will be able to gain an understanding of the importance of UX design.

Ungraded units include units which will support access to higher education whilst supporting study and personal skills.



#### 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 learner 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

#### 6.1 ICT Practitioners

# 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
- Adults who have gone straight into industry (perhaps following apprenticeship routes) who wish to progress to HE.



#### 1.8 Delivery methods

Delivery methods for this diploma can include:

- Face to face
- Blended learning

Work placements would also be beneficial and visits to IT companies or manufacturers would widen opportunities.

Assessment methods include creating programs, exam, controlled assessment, projects e.g. creating programs including developmental notes, data dictionaries, presentations, self-evaluation, SWOT analysis, short answer questions, reports, design diagrams and test plans.

#### 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

Progression routes are into a range of degrees including:

- BSc (H) Computer Science (single honours
- BSc (H) Computer Science and Education with Qualified Teacher Status
- BSc (H) Computing and ICT
- BSc (H) Computer Science and Mathematics
- BSc (H) Software Engineering
- BA (Hons) Product Design and Creative Innovation
- BSc (Hons) Product Design
- BA (Hons) Product Design
- BSc (Hons) Product Design and Innovation
- BSc (Hons) User Experience Design
- BSc (Hons) User Centred Design
- BA in User Experience and User Interface (UX and UI) Design

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. Learner 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.

Learners will probably require a pass in maths and English at GCSE level or a Functional Skills qualification in English and Maths to progress onto a degree course.

Providers may ask learners for GCSEs as a mark of ability at Level 2 as an appropriate entry requirement to a Level 3 course.

#### 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 learner 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 learner and making justifiable and professional judgements about the learner'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.

Learners must complete 12 credits must be taken from the mandatory group. A maximum of 6 credits must be taken from the Research optional group. The remaining 27 credits must be taken from the Optional Graded Academic Units group. Learners must complete 15 credits of ungraded units with 9 credits from the Mandatory ungraded group and 6 credits from the optional ungraded group.



#### **Mandatory Units: Graded Academic Subject Content**

Learners must achieve 12 credits from this group.

Unit Code	Unit Title	Level	Credits	Content	Grade Descriptors	Suggested Assessment methods	Assessment Volume
QU026955	Engineering Design - CAD	3	3	Academic	3, 7	Portfolio of evidence containing: 2D and 3D designs to include printouts/screen shots of completed work with annotation to clearly show the process followed to complete the tasks	750 words, screenshots/printouts
QU026123	Introduction to Programming Implementation	3	3	Academic	3, 7	Creation of programme with developmental notes	Program, 500 words
QU028867	User Experience (UX) 3D Design Project	3	3	Academic	3, 6, 7	Demonstrate comprehensive understanding of 3D design through portfolio evidence to showing creative inspiration, process and chronology.	1000 words and production of 2D and 3D design portfolio
						Controlled assessment	Timed sketching – ideation task – 2 hours controlled assessment



#### **Graded Units: Research**

Learners must achieve 6 credits from this group.

Unit Code	Unit Title	Level	Credits	Content	Grade Descriptors	Sugeested Assessment methods	Assessment Volume
QU011341	IT Project	3	6	Academic	3, 4, 7	Report including:	2000 words
QU026380	Research Project for IT - Methodology	3	6	Academic	2, 3, 4, 5, 7	Research plan Research report Evidence of research carried out	200 words 2500 words 300 words

#### **Optional Graded Academic Units**

Learners must achieve 27 credits from this group.

Unit Code	Unit Title	Level	Credits	Content	Grade Descriptors	Suggested Assessment methods	Assessment Volume
QU027886	Electronics	3	6	Academic	2, 3, 7	2 x controlled assessments  Report	2 x 1 hour open book assessments – 1 written, 1 practical 10000 words
QU027881	Graphic Design	3	3	Academic	3, 7	Demonstrate comprehensive understanding of graphic design through portfolio evidence to showing creative inspiration, process	Design portfolio with 500 word annotations



Unit Code	Unit Title	Level	Credits	Content	Grade Descriptors	Suggested Assessment methods	Assessment Volume
						and chronology. To include evidence of hand rendered and computer techniques. Self-reflection	300 words
QU028475	Introduction to Virtual and Augmented Reality	3	6	Academic	1, 3, 5, 7	Report AR or VR Experience	2000 words 1000 words
QU026125	Mathematics for Computing	3	3	Academic	3,7	Exam	2 hours closed book
QU027888	Mechanics	3	3	Academic	2, 3, 7	Controlled assessment	1.5 hours closed book
QU006341	Program Testing	3	3	Academic	3, 7	Program test design, report	1000 words
QU014306	Relational Database	3	3	Academic	3, 7	Controlled assessment	1.5 hours closed book
QU011300	Software Fundamentals – Object- Oriented Programming	3	3	Academic	3, 6, 7	Creation of program with developmental notes.	Program, 250 words 250 words
QU027890	Understanding Manufacturing Processes	3	6	Academic	1, 5, 7	Test data plan Report Individual Presentation	2000 words 10 minutes & 5 minutes Q&A
QU026152	Understanding Robots and Control Systems	3	3	Academic	3, 4, 5, 7	Report	1500 words
QU025820	Visual Studies 2D	3	6	Academic	3, 7	Demonstrate understanding of 2D design through portfolio evidence to showing creative inspiration, process and chronology	Series of storyboards, report 1000 words including self-reflection



Unit Code	Unit Title	Level	Credits	Content	Grade Descriptors	Suggested Assessment methods	Assessment Volume
QU026145	Website Design and Production	3	6	Academic	2, 3, 5, 7	Project – Plan, design and develop interactive website with a minimum of five pages including development diary. Report	Production of website with minimum of five pages Development Diary – 400-500 words 1500 words

#### **Mandatory Units: Ungraded**

Learners must achieve 9 credits from this group.

Unit Code	Unit Title	Level	Credits	Content	SuggestedAssessment methods	Assessment Volume
QU007486	Application of Number - Presenting and interpreting information	3	3	Other	2 controlled examinations	2 x 60 minutes
QU025532	Preparation for Higher Education	3	3	Other	Research, Application form and Personal Statement, Prepared Q&A	Review of research, course and decision 500 words, application form, Personal Statement 750 words, prepared Q&A 250 words
QU011467	Spreadsheets	3	3	Other	Case study analysis and creation of spreadsheets to meet customer needs, manipulation of data within spreadsheets, create graphs, charts and pivot tables, report	Case study analysis 500 words 750 word report including data from spreadsheets, graphs and charts, pivot table



#### **Optional Units: Ungraded**

Learners must achieve 6 credits from this group.

Unit Code	Unit Title	Level	Credits	Content	Suggested Assessment methods	Assessment Volume
QU026150	Computer Data Protection	3	3	Academic	Structured questions Case study analysis	750 words 750 words
QU025278	Developing Professional Attributes	3	3	Other	SWOT analysis Professional development plan Essay	200 words 300 words 1000 words
QU008279	Introduction to 3D	3	3	Other	Storyboard/portfolio presentation pages	Portfolio presentation pages (concept, fabric/colour page, line up, progress of ideas) documenting the creative process
QU010767	Introduction to the Grammar of English	3	3	Other	Structured questions	1500 words
QU025450	Presenting Information Using ICT	3	3	Other	Notes from a range of sources Presentation Presentation lecture notes and handouts	300 words Presentation 200 words
QU018352	Presentation Skills	3	3	Other	Notes from a range of sources Presentation Presentation lecture notes and handouts	300 words 200 words 1000 words
QU018630	Problem Solving in the Workplace	3	3	Other	Project	1500 words – Analyse and propose solutions to at least two workplace problems including justification for selected solution
QU025796	Professional Interpersonal Skills	3	3	Other	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	Other	Report	1500 words
QU018318	Study Skills	3	3	Other	Study Plan Worksheets Reflective account Assignment planning	300 words 500 words 500 words 250 words
QU025609	Work Placement	3	3	Other	Report	1500 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 GCSE level or a Functional Skills qualification in English and Maths 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, <a href="https://www.accesstohe.ac.uk/AboutUs/Publications/Documents/Access-Diploma-Specification.pdf">https://www.accesstohe.ac.uk/AboutUs/Publications/Documents/Access-Diploma-Specification.pdf</a>



#### 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. Learner 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 learner 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 learner 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 learner 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:

 $\underline{\text{http://www.accesstohe.ac.uk/AboutUs/Publications/Documents/Access-Grading-Scheme-Section-B.pdf}$ 

#### 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 Qualifications as 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.
  <a href="https://www.accesstohe.ac.uk/AboutUs/Publications/Documents/Guidance-admission-of-learners-AHE-07.pdf">https://www.accesstohe.ac.uk/AboutUs/Publications/Documents/Guidance-admission-of-learners-AHE-07.pdf</a>.
- 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

Provides will need to provide learners with access to computer labs, JavaScript (server). Software to facilitate all modules.



#### 5.4 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.

#### 5.5 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:	QU026955	QU026955					
Title:	Engineering Design - CAD						
Unit Level:	Level 3 Unit 3 Credit:						
Grading type:	Graded	Graded					
Grade Descriptors:	<ul><li>GD3- Application of GD7-Quality</li></ul>	CDS Application of skins					
Academic subject content/other:	Academic subject con	tent					
Assessment details:	Portfolio of evidence of	containing:					
	- 2D and 3D designs to include printouts/screen shots of completed work with annotation to clearly show the process followed to complete the tasks.						

LEARNING OUTCOMES	ASSESSMENT CRITERIA		
The learner will:	The learner can:		
Understand 2D design.	<ul> <li>1.1 Produce 2D geometric objects.</li> <li>1.2 Produce 2D objects to given measurements.</li> <li>1.3 Perform editing techniques on 2D objects.</li> <li>1.4 Create a layout plan.</li> </ul>		
2. Understand 3D design.	<ul> <li>2.1 Create symbols and link these to text using Computer-Aided Design.</li> <li>2.2 Create a plan with symbols repeated at least once.</li> <li>2.3 Create 3D objects.</li> <li>2.4 Produce drawing.</li> <li>For example: using layers, classes, sheets.</li> </ul>		



## **Access to HE Diploma Unit**

Unit Code:	QU026123		
Title:	Introduction to Programming Implementation		
Unit Level:	Level 3 Unit 3 Credit:		
Grading type:	Graded		
Grade Descriptors:	<ul><li>GD3- Application of skills</li><li>GD7-Quality</li></ul>		
Academic subject content/other:	Academic subject content		
Assessment details:	Creation of program and development notes - 500 words		

LEARNING OUTCOMES	ASSESSMENT CRITERIA
The learner will:	The learner can:
Be able to use a high level language compiler.	<ul> <li>1.1 Carry out file management activities.</li> <li>1.2 Use editor for creating and editing source programs.</li> <li>1.3 Interpret compilation and run time error messages to take corrective action.</li> </ul>
2 Be able to implement simple programs.	<ul> <li>2.1 Declare and use meaningful variables and constants.</li> <li>2.2 Declare appropriate simple data types.</li> <li>2.3 Use meaningful identifiers.</li> <li>2.4 Write programs including: <ul> <li>arithmetic</li> <li>simple input</li> <li>formatted output statements.</li> </ul> </li> <li>2.5 Make program easier to read and understand by using: spaces blank lines indentation conditional statements.</li> <li>Conditional statements could include: IF – THEN – ELSE – ENDIF</li> </ul>



LEARNING OUTCOMES		ASSESSMENT CRITERIA		
The learner will:		The learner can:		
3	Be able to use program control structures.		Select appropriate relational operators. Use two select statements comments. Use three iteration statements.	
4	Be able to create program documentation.	4.1	appropriate documentation.  Documentation could include pseudocode, data flowcharts, debug and use of test data	



## **Access to HE Diploma Unit**

Unit Code:	QU028867		
Title:	User Experience (UX)3D Design Project		
Unit Level:	Level 3 Unit 6 Credit:		
Grading type:	Graded		
Grade Descriptors:	<ul><li>GD2-Application of knowledge</li><li>GD7-Quality</li></ul>		
Academic subject content/other:	Academic Subject Content		
Assessment details:	Refer to assessment grid		

LEARNING OUTCOMES		ASSESSMENT CRITERIA		
The learner will:		The learner can:		
1	Be able to investigate the inherent qualities and physical properties of a range of media and materials used in 3D design to create an end product that meets the user experience requirements of a specific brief.	<ul> <li>1.1 Identify the qualities and properties of a range of materials used in 3D design.</li> <li>1.2 Explain how the 3D media and materials may be used to create a end product which meets UX desibrief requirements.</li> <li>1.3 Explain construction techniques used when using 3D media.</li> </ul>	an ign	
2	Be able to select appropriate 3D techniques to produce a final outcome to meet the UX design brief requirements.	<ul> <li>2.1 Develop user personas and justify their importance in a user experie design project</li> <li>2.2 Identify materials to be used to produce a specific outcome.</li> <li>2.3 Justify choice of materials to be u to produce a specific outcome.</li> <li>2.4 Select processes and media to be used to produce the specific outcome, justifying choices.</li> </ul>	nce	
3	Be able to develop aesthetic and technical awareness of design.	<ul> <li>3.1 Use primary and secondary resources to research contempora and historical design.</li> <li>3.2 Evaluate the effectiveness of the sources in supporting the development of own design ideas</li> </ul>	·	



LEARNING OUTCOMES	ASSESSMENT CRITERIA		
The learner will:	The learner can:		
	3.3 Examine the role of emotion and social interactions in user experience design.		
4 Be able to develop work in both 2D and 3D to produce a final outcome, utilising a range of sources and materials.	<ul> <li>4.1 Assess a range of sources which can be utilised to develop ideas both in 2D and 3D.</li> <li>4.2 Develop ideas in both 2D and 3D based on the research undertaken.</li> <li>4.3 Produce a final outcome using a variety of materials.</li> </ul>		



# **Graded Research Units**

## **Access to HE Diploma Unit**

Unit Code:	QU011341		
Title:	IT Project		
Unit Level:	Level 3 Unit 6 Credit:		
Grading type:	Graded		
Grade Descriptors:	<ul><li>GD3-Application of skills</li><li>GD4-Use of information</li><li>GD7-Quality</li></ul>		
Academic subject content/other:	Academic Subject Content		
Assessment details:	See assessment grid		

LEARNING OUTCOMES	ASSESSMENT CRITERIA		
The learner will:	The learner can:		
1 Understand a problem in ICT.	<ul><li>1.1 Explain the problem in summary</li><li>1.2 Explain the required results.</li><li>1.3 Analyse the data.</li></ul>		
Understand how to design a solution to the problem.	<ul> <li>2.1 Explain the input and output data.</li> <li>2.2 Devise a data dictionary.</li> <li>2.3 Produce a design for the solution.</li> <li>2.4 Produce suitable design diagrams for the solution.</li> </ul>		
3 Understand how to test the solution.	<ul> <li>3.1 Devise input data to test the solution.</li> <li>3.2 Based on the original problem definition, define the results expected for the test data.</li> <li>3.3 Check the design against the test data/results.</li> </ul>		
Understand how to produce a solution from the design.	<ul><li>4.1 Produce the solution using suitable techniques.</li><li>4.2 Test the solution using the test plan.</li><li>4.3 Document the solution in detail.</li></ul>		



## **Access to HE Diploma Unit**

Unit Code:	QU026380			
Title:	Research Project for IT	Research Project for IT - Methodology		
Unit Level:	Level 3 Unit 6 Credit:			
Grading type:	Graded	Graded		
Grade Descriptors:	<ul> <li>GD2-Application of knowledge</li> <li>GD3-Application of skills</li> <li>GD4-Use of information</li> <li>GD5-Communication and presentation</li> <li>GD7-Quality</li> </ul>			
Academic subject content/other:	Academic subject content			
Assessment details:	Research project: Research plan ~ 200 words Research report 2,500 words Evidence of research carried out ~ 300 words			

LEARNING OUTCOMES	ASSESSMENT CRITERIA		
The learner will:	The learner can:		
Be able to plan a research project.	<ol> <li>Identify and agree a research topic located within a knowledge domain relevant to the named diploma.</li> <li>Produce and explain the aims of the research.</li> <li>Develop, test, evaluate and refine appropriate research methodology.</li> <li>Identify any ethical, practical or safety issues and how these will be managed/overcome.</li> </ol>		
2. Be able to conduct research.	<ul> <li>2.1 Use a valid and appropriate method of investigation.</li> <li>2.2 Identify and conduct detailed research from a wide range of sources.</li> <li>2.3 Review research and relevant theory.</li> </ul>		
3. Be able to interpret research findings.	3.1 Interpret findings and draw appropriate conclusions.		



LEARNING OUTCOMES		ASSESSMENT CRITERIA		
4.	Know how to present research findings.	format to pr 4.3 Summarise a conventio the knowled 4.4 Reference a	use the most appropriate esent results. information coherently in nal style, appropriate to	
5.	Be able to evaluate own research project.	methodolog 5.2 Evaluate fin previous res theory.	he project design and lies. Idings in relation to aims, search and relevant	



# **Optional Graded Academic Units**

## **Access to HE Diploma Unit**

Unit Code:	QU027886		
Title:	Electronics		
Unit Level:	Level 3 Unit 6 Credit:		
Grading type:	Graded		
Grade Descriptors:	<ul><li>GD2-Application of knowledge</li><li>GD3-Application of skills</li><li>GD7-Quality</li></ul>		
Academic subject content/other:	Academic Subject Content		
Assessment details:	Refer to assessment grid		

LEARNING OUTCOMES		ASSE	ESSMENT CRITERIA
The learner will:		The I	earner can:
Understand concepts a appropriate to analogue electronic systems.		1.1	Apply the correct terminology to describe semi conductor n and p type materials
Be able to carry out info searches on manufactur sheets.		2.1	Describe the operation and compare the characteristics of a range of electronic components.
			This may include: p-n junction diode, zener diode, bipolar transistor, unipolar transistor, class A small signal amplifier, transistor models, series voltage regulator, combinational logic gates.
Be able to select appropriate for specified purposes.	oriate devices	3.1	Identify and select components from manufacturers' data sheets to design simple circuits.
			This may include simple d.c. power supply, series voltage regulator, simple transistor switching unit,



LEARNING OUTCOMES	ASSESSMENT CRITERIA
The learner will:	The learner can:
	single stage class A amplifier, simple combinational logic circuits.
Be able to test devices and systems against specifications.	4.1 Construct and test the circuits against the specification.
5 Be able to communicate test results effectively.	5.1 Report on the tests completed using correct terminology and technical terms.



## **Access to HE Diploma Unit**

Unit Code:	QU027881	QU027881		
Title:	Graphic Design	Graphic Design		
Unit Level:	Level 3	Unit Credit:	3	
Grading type:	Graded			
Grade Descriptors:	GD3-Application	<ul> <li>GD2-Application of knowledge</li> <li>GD3-Application of skills</li> <li>GD6-Autonomy/Independence</li> <li>GD7-Quality</li> </ul>		
Academic subject content/other:	Academic Subject Co	Academic Subject Content		
Assessment details:	design through portfo inspiration, process, a hand rendered and co	Demonstrate comprehensive understanding of graphic design through portfolio evidence to showing creative inspiration, process, and chronology. To include evidence of hand rendered and computer techniques. Design portfolio with 500 words annotations. 300 word self-reflection.		

LEARNING OUTCOMES	ASSESSMENT CRITERIA
The learner will:	The learner can:
Understand the scope of research from primary and secondary sources for a graphic design project.	<ul><li>1.1 Carry out research for a graphic design project using a range of sources.</li><li>1.2 Analyse and reference the work of other graphic designers to inform own ideas.</li></ul>
Be able to research and develop ideas relevant to graphic design.	<ul><li>2.1 Produce innovative thumbnail sketches and visuals.</li><li>2.2 Use a computer to insert text on images.</li></ul>
3 Be able to realise experimental ideas to achieve a final outcome/s.	<ul> <li>3.1 Produce graphic outcome/s relevant to research and development that employs use of: <ul> <li>hand-rendered techniques</li> <li>computer based techniques.</li> </ul> </li> <li>3.2 Explore own personal themes to produce further creative outcomes.</li> <li>3.3 Record variations in techniques which have affected own outcomes.</li> </ul>



LEARNING OUTCOMES	ASSESSMENT CRITERIA		
The learner will:	The learner can:		
4 Be able to critique own work.	4.1 Critically evaluate the graphic design outcomes produced in terms of reflecting current practices.		



## **Access to HE Diploma Unit**

Unit Code:	QU028475		
Title:	Introduction to Virtual and Augmented Reality		
Unit Level:	Level 3	Unit Credit:	6
Grading type:	Graded		
Grade Descriptors:	<ul> <li>GD1-Understanding the subject</li> <li>GD3-Application of skills</li> <li>GD5-Communication and presentation</li> <li>GD7-Quality</li> </ul>		
Academic subject content/other:	Academic Subject Cor	ntent	
Assessment details:	Report ~ 2000 word re AR or VR Experience		

LEA	ARNING OUTCOMES	ASSESSMENT CRITERIA	
The	learner will:	The learner can:	
1.	Understand the purposes of Virtual Reality (VR) and Augmented Reality (AR)	<ul> <li>1.1 Explain the purposes of VR and AR for games, entertainment and in industry.</li> <li>1.2 Evaluate the current and possible future uses of VR and AR technology and how it may impact society.</li> </ul>	у
2	Analyse the features, functions and components of Virtual and Augmented Reality	<ul> <li>2.1 Identify and explain the hardware components of VR and AR.</li> <li>2.2 Analyse the technological functions of VR and AR.</li> <li>2.3 Describe the software used for the development of VR and AR.</li> <li>2.4 Compare the functionality of different VR and AR headsets.</li> </ul>	nt
3	Design, create and evaluate prototype Virtual and Augmented Reality experiences	<ul> <li>3.1 Design a prototype VR or AR application.</li> <li>3.2 Implement a prototype VR or AR application.</li> <li>3.3 Test a prototype VR or AR application.</li> <li>3.4 Evaluate a prototype VR or AR application.</li> </ul>	



Unit Code:	QU026125	
Title:	Mathematics for Computing	
Unit Level:	Level 3 Unit 3 Credit:	
Grading type:	Graded	
Grade Descriptors:	<ul><li>GD3-Application of skills</li><li>GD7-Quality</li></ul>	
Academic subject content/other:	Academic Subject Content	
Assessment details:	Exam - 2 hours closed book	

LEARNING OUTCOMES	ASSESSMENT CRITERIA
The learner will:	The learner can:
Know how to represent denary integers in different formats.	<ul> <li>1.1 Convert denary numbers into Binary Coded Decimal format and vice versa.</li> <li>1.2 Convert denary numbers into hexadecimal and vice versa.</li> <li>1.3 Convert integer into Sign and Magnitude format and store them as 8-bit or 16-bit numbers.</li> <li>1.4 Convert integers into One's Complement and Two's Complement format.</li> <li>1.5 Determine whether an overflow occurs for a given format.</li> </ul>
Know how to perform arithmetic on integers in binary.	<ul> <li>2.1 Perform simple arithmetic operations using: <ul> <li>(a) binary addition of unsigned integers</li> <li>(b) binary subtraction of unsigned integers</li> <li>(c) binary multiplication of unsigned integers</li> <li>(d) binary division of unsigned integers</li> <li>(e) binary addition of signed integers</li> <li>(f) binary subtraction of signed integers</li> </ul> </li> </ul>



LEARNING OUTCOMES	ASSESSMENT CRITERIA	
The learner will:	The learner can:	
	<ul> <li>2.2. Explain the effect of word length on the allowable numbers on unsigned and signed formats.</li> <li>2.3 Explain what the ASCII representation of data is.</li> <li>2.4 Explain how to convert Hex to ASCII code.</li> </ul>	
Know how to represent integers and numbers with fractional parts in different formats.	<ul> <li>3.1 Convert into binary and vice versa: <ul> <li>simple fractions</li> <li>decimals.</li> </ul> </li> <li>3.2 Use floating point notation to store a decimal number as a 16-bit number.</li> <li>3.3 Calculate the degree of accuracy given: <ul> <li>a 1-bit sign</li> <li>10-bit mantissa</li> <li>a 5-bit exponent.</li> </ul> </li> <li>3.4 Describe the limitations of representing real numbers in a computer system and how errors occur.</li> </ul>	



Unit Code:	QU027888		
Title:	Mechanics	Mechanics	
Unit Level:	Level 3	Level 3 Unit 3 Credit:	
Grading type:	Graded	Graded	
Grade Descriptors:		GD3- Application of skills	
Academic subject content/other:	Academic Subject Content		
Assessment details:	Refer to assessment of	Refer to assessment grid	

LEA	ARNING OUTCOMES	ASSES	SSMENT CRITERIA
The	e learner will:	The learner can:	
1	Know the difference between scalar and vector quantities.	1.2 E	Contrast scalar and vector quantities. Explain the difference between mass and weight. Carry out addition of vectors.
2	Know the Principle of Moments.	2.2 l	Define moment of a force about a point. Use the Principles of Moments to solve problems.
3	Be able to solve problems related to velocity and acceleration.	3.2	Explain the relationship between velocity and acceleration. Solve problems involving speed, distance and acceleration.
4	Be able to apply Newton's Law of Motion.	4.2 S	Use the equation of motion to solve problems. Solve problems involving the equation F = ma.
5	Be able to solve problems involving the concept of work, energy and power.	5.2	Solve problems involving work, energy and power. Apply the concepts of potential and kinetic energy to solve problems.



Unit Code:	QU006341		
Title:	Program Testing		
Unit Level:	Level 3 Unit 3 Credit:		
Grading type:	Graded		
Grade Descriptors:	<ul><li>GD3- Application of skills</li><li>GD7-Quality</li></ul>		
Academic subject content/other:	Academic Subject Content		
Assessment details:	Refer to assessment grid		

LEARNING OUTCOMES	ASSESSMENT CRITERIA		
The learner will:	The learner can:		
1 Understand test plans.	<ul><li>1.1 Design appropriate test data to fully test the program.</li><li>1.2 Produce comprehensive test plans to fully test the program specification.</li></ul>		
Be able to implement testing of a program.	<ul><li>2.1 Perform test plans accurately and record results.</li><li>2.2 Modify and reassess the code in light of test results.</li></ul>		
Be able to produce test documentation.	3.1 Include all test documents as part of the system documentation to show all parts of the program being fully tested.		



Unit Code:	QU014306		
Title:	Relational Database		
Unit Level:	Level 3 Unit 3 Credit:		
Grading type:	Graded		
Grade Descriptors:	<ul><li>GD3- Application of skills</li><li>GD7-Quality</li></ul>		
Academic subject content/other:	Academic Subject Content		
Assessment details:	Refer to assessment grid		

LEARNING OUTCOMES	ASSESSMENT CRITERIA		
The learner will:	The learner can:		
Be able to identify the data structure to hold information in a database.	<ul><li>1.1 Create tables and establish relationships between them.</li><li>1.2 Design a data entry form.</li></ul>		
Be able to process information in a database.	<ul> <li>2.1 Create queries to combine data from multiple tables.</li> <li>2.2 Perform calculations based on information in queries.</li> <li>2.3 Display information from tables on a form.</li> </ul>		
Be able to present database information in reports.	3.1 Create menu and sub-menu reports for a database and attach actions to them.		



Unit Code:	QU011300		
Title:	Software Fundamenta	Software Fundamentals - Object-Oriented Programming	
Unit Level:	Level 3	Level 3 Unit 3 Credit:	
Grading type:	Graded	Graded	
Grade Descriptors:	<ul><li>GD3- Application of skills</li><li>GD6-Autonomy/Independence</li><li>GD7-Quality</li></ul>		
Academic subject content/other:	Academic subject content		
Assessment details:	Refer to assessment grid		

LEARNING O	UTCOMES	ASSE	ESSMENT CRITERIA
The learner v	vill:	The learner can:	
1. Know how oriented p	v to design an object- orogram.	1.1	class and inherited classes required for a specified application.
	v to create and compile an ented program.	2.1 2.2 2.3 2.4	inherited classes containing both data and methods to documentation standards.  Explain objects appropriate to a specified applications.  Develop executable code which the computer can run using language translation software.
3. Understa	nd how to test object- program.	3.1	Design a comprehensive test data plan and calculate expected results to test such program.  Analyse the result of testing the program with expected results to



LEARNING OUTCOMES	ASSESSMENT CRITERIA
The learner will:	The learner can:
	determine whether program meets specification.  3.3 Explain appropriate action carried out to correct programs errors.



Unit Code:	QU027890			
Title:	Understanding Manufa	Understanding Manufacturing Processes		
Unit Level:	Level 3	Level 3 Unit 6 Credit:		
Grading type:	Graded			
Grade Descriptors:	<ul> <li>GD1-Understanding the subject</li> <li>GD5- Communication and presentation</li> <li>GD7-Quality</li> </ul>			
Academic subject content/other:	Academic Subject Content			
Assessment details:	Report ~ 2000 words Individual presentation ~ 10 minutes plus 5 minutes Q&A			

LEARNING OUTCOMES	ASSESSMENT CRITERIA		
The learner will:	The learner can:		
Understand legislation and guidelines related to the manufacturing industry.	Summarise legislation and guidelines related to the manufacturing industry.		
Know about the environment and equipment required to manufacture products.	<ul> <li>2.1 Explain the importance of basic environmental and personal hygiene in the manufacturing industry.</li> <li>2.2 Analyse the consequences of contamination on manufactured products.</li> <li>2.3 Explain the difference between sterile and non-sterile manufacturing, with reference to the different methods used.</li> <li>2.4 Explain processes used in manufacturing: <ul> <li>automated manufacture methods</li> <li>assembly robotics methods.</li> </ul> </li> </ul>		
Understand how products are manufactured.	<ul> <li>3.1 Explain how manufacturing processes mould and fabricate materials into components for product and packaging design.</li> <li>3.2 Explain how 3D printing can be used in the manufacturing process.</li> </ul>		



LEARNING OUTCOMES	ASSESSMENT CRITERIA
The learner will:	The learner can:
	<ul> <li>3.3 Analyse the impact of the sustainability agenda on manufacturing processes.</li> <li>3.4 Summarise the documentation required when manufacturing a range of products, including labelling and packaging.</li> <li>Minimum three different types of</li> </ul>
	product.  3.5 Analyse methods of waste disposal in the manufacturing process, including hazardous waste.
4 Understand the principles of quality assurance and quality control required in the manufacturing industry.	<ul> <li>4.1 Explain the difference between quality control and quality assurance in a manufacturing environment.</li> <li>4.2 Explain how manufactured products are tested.</li> </ul>



Unit Code:	QU026152	
Title:	Understanding Robots and Control Systems	
Unit Level:	Level 3 Unit 3 Credit:	
Grading type:	Graded	
Grade Descriptors:	<ul> <li>GD1-Understanding the subject</li> <li>GD2-Application of knowledge</li> <li>GD7-Quality</li> </ul>	
Academic subject content/other:	Academic subject content	
Assessment details:	Report 1500 words	

LEARNING OUTCOMES	ASSESSMENT CRITERIA		
The learner will:	The learner can:		
Understand different types of robotic devices and their control systems	<ul> <li>1.1 Compare and contrast different types of robotic devices, explaining their uses.</li> <li>1.2 Explain how different sensors are used to control a robot.</li> <li>1.3 Analyse the strengths and weaknesses of using a robot to complete routine tasks: <ul> <li>in the home</li> <li>in manufacturing industry</li> <li>in medical applications</li> <li>agricultural environments.</li> </ul> </li> </ul>		
Understand legal and ethical issues related to the use of robots.	<ul> <li>2.1 Identify legislation and guidance which is relevant to the development and use of robots and control systems.</li> <li>2.2 Discuss ethical issues which should be considered in the development and use of robots and control systems.</li> </ul>		
Understand how to design and create a robot and control system.	3.1 Describe equipment required to create a robot and control system.		



LEARNING OUTCOMES	ASSESSMENT CRITERIA	
The learner will:	The learner can:	
	<ul><li>3.2 Evaluate design tools which can be used to design a robot and control system.</li><li>3.3 Explain the importance of creating a test plan for the robot and control system.</li></ul>	



Unit Code:	QU025820	QU025820	
Title:	Visual Studies 2D	Visual Studies 2D	
Unit Level:	Level 3	Level 3 Unit 6 Credit:	
Grading type:	Graded	Graded	
Grade Descriptors:	<ul><li>GD3-Application</li><li>GD7-Quality</li></ul>	ODS-Application of skills	
Academic subject content/other:	Academic Subject Co	Academic Subject Content	
Assessment details:	Refer to assessment	Refer to assessment grid	

LEARNING OUTCOMES		ASSESSMENT CRITERIA		
The learner will:		The learner can:		
1.	Be able to apply the formal elements of visual language in a practical context.	1.1	line, form, tone, surface, scale, composition, pattern and perspective.	
2.	Understand colour theory and the creative use of colour.	2.1 2.2 2.3	non-conventional colour combinations.	
3.	Know the potential of selected media to support design ideas.	3.1	Experiment with a wide range of media to produce design ideas. Use analysis of results to produce innovative outcomes.	
4.	Know how to use visual studies techniques to develop creative ideas.	4.1	Develop a visually fluent body of work which shows development of ideas and use of 2D experimentation to achieve creative outcomes.	



LEARNING OUTCOMES		ASSESSMENT CRITERIA		
The learner will:		The learner can:		
5.	Be able to apply health and safety procedures relating to working in a studio environment.	5.1	Work safely in the studio environment, with regard to all health and safety procedures, including the handling of equipment and hazardous materials.	
6.	Be able to display work.	6.1 6.2 6.3	approaches to be used.	
7.	Be able to critically evaluate own work.	7.1 7.2	Critically reflect on own work, using feedback from others. Evaluate outcomes for 2D visual studies.	



Unit Code:	QU026145		
Title:	Website Design and Production		
Unit Level:	Level 3 Unit 6 Credit:		
Grading type:	Graded		
Grade Descriptors:	<ul><li>GD3-Application of skills</li><li>GD6-Autonomy/Independence</li><li>GD7-Quality</li></ul>		
Academic subject content/other:	Academic Subject Content		
Assessment details:	development and mair	Academic poster x 2 (400 words each), plan, design, development and maintenance of web page including development diary (750 - 1000 words)	

LEA	RNING OUTCOMES	ASSESSMENT CRITERIA		
The learner will:		The learner can:		
1.	Understand the elements of a web page.	<ul> <li>1.1 Describe elements of an existing web page, including text, graphics, homepage, navigation bar, lines and hyperlinks.</li> <li>1.2 Explain different formats of graphic images and sound files, giving examples of how they are used.</li> <li>1.3 Analyse elements of complex web pages including: <ul> <li>a) backgrounds</li> <li>b) tables</li> <li>c) links to sound files.</li> </ul> </li> </ul>		
2	Understand HTML tags.	<ul> <li>2.1 Analyse how text is displayed on a web page including: <ul> <li>layout</li> <li>fonts</li> <li>colour.</li> </ul> </li> <li>2.2 Identify basic HTML tags in a web page's source code.</li> <li>2.3 Produce a test page, using a simple text editor and HTML tags, which incorporates: <ul> <li>a heading,</li> </ul> </li> </ul>		



LE	ARNING OUTCOMES	ASSESSMENT CRITERIA
The	e learner will:	The learner can:
		<ol> <li>horizontal rule</li> <li>un-numbered list</li> <li>graphic image</li> <li>a hyperlink</li> <li>a homepage.</li> <li>Use a web browser to test web page and modify as required.</li> <li>Identify HTML tags associated with tables, backgrounds and sound files in a web page's source code.</li> <li>Explain the effects of HTML tags on the appearance and performance of the web page when viewed with a browser.</li> </ol>
3	Know how to use HTML resources.	<ul> <li>3.1 Carry out a search for sites relating to HTML and web page creation.</li> <li>3.2 Identify sites which: <ul> <li>relate to HTML specification</li> <li>enable you to download HTML utilities.</li> </ul> </li> <li>3.3 Explain existing HTML standards.</li> <li>3.4 Analyse current developments and trends relating to HTML standards.</li> </ul>
4	Know how to prepare information to put on the web.	<ul><li>4.1 Prepare text, hyperlinks and graphics to be included on the web page.</li><li>4.2 Explain the relationship and links between web pages.</li></ul>
5	Be able to design and produce linked web pages.	<ul> <li>5.1 Plan the layout of the web pages.</li> <li>5.2 Produce functional web pages to the design specification.</li> <li>5.3. Create hyperlinks to navigate between multiple web pages and external websites</li> </ul>
6	Be able to maintain and update linked web pages.	<ul> <li>6.1 Update web pages and web page elements by:</li> <li>editing</li> <li>adding web pages to homepage</li> <li>deleting web pages</li> <li>writing and editing code</li> </ul>



LEARNING OUTCOMES	ASSESSMENT CRITERIA	
The learner will:	The learner can:	
	using text fonts and colour.	



# **Mandatory Units: Ungraded**

#### **Access to HE Diploma Unit**

Unit Code:	QU007486		
Title:	Application of Number Information	Application of Number - Interpreting and Presenting Information	
Unit Level:	Level 3	Level 3 Unit 3 Credit:	
Grading type:	Ungraded		
Academic subject content/other:	Academic Subject Content		
Assessment details:	2 x controlled assessments - 2 x 1 hour assessments		

LEARNING OUTCOMES	ASSESSMENT CRITERIA
The learner will:	The learner can:
Know how to obtain and interpret mathematical and statistical information.	<ul> <li>1.1 Within a complex task, identify and evaluate possible sources of data, e.g. rate of change, trends, probabilities.</li> <li>1.2 Justify the choice of data collection procedures giving reasons for choosing a particular sample and methods used.</li> <li>1.3 Evaluate actual or possible sources of error in collecting and recording data.</li> <li>1.4 Choose and justify the chosen methods of recording data.</li> <li>1.5 Interpret the main characteristics of the data in relation to the task.</li> </ul>
Be able to present mathematical and statistical data.	<ul> <li>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.</li> <li>2.2 Use correct axes, scales and conversions.</li> <li>2.3 Justify choice and use of presentation techniques and</li> </ul>



LEARNING OUTCOMES	ASSESSMENT CRITERIA
The learner will:	The learner can:
	methods for the original purpose of the task.



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

LEARNING OUTCOMES	ASSESSMENT CRITERIA		
The learner will:	The learner can:		
Understand how to identify opportunities for Higher Education.	<ul> <li>1.1 Use information sources to research Higher Education courses.</li> <li>1.2 Analyse processes and procedures necessary to gain entry to Higher Education.</li> <li>1.3 Analyse information on Higher Education courses and make appropriate realistic choices.</li> </ul>		
Understand the process of completing a Higher Education application form.	<ul> <li>2.1 Complete an application form with excellent attention to detail, meeting a given deadline.</li> <li>2.2 Summarise and evaluate personal experiences, achievement and goals, communicating these clearly in a personal statement.</li> </ul>		
Understand preparation required for the interview process.	<ul> <li>3.1 Conduct further personal research into courses at relevant institutions in preparation for an interview.</li> <li>3.2 Prepare provisional answers to anticipated questions, making excellent use of previous experience and recent study.</li> </ul>		
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:	
	<ul> <li>4.2 Explain likely practical problems and barriers in moving to higher education and seek strategies for overcoming these.</li> <li>4.3 Analyse the nature of study in Higher Education.</li> </ul>	



Unit Code:	QU011467		
Title:	Spreadsheets		
Unit Level:	Level 3 Unit 3 Credit:		
Grading type:	Ungraded		
Academic subject content/other:	Other		
Assessment details:	Please refer to assessment grid.		

LE	ARNING OUTCOMES	ASSE	ESSMENT CRITERIA	
The	e learner will:	The learner can:		
1	Know how to design and store a spreadsheet.	1.1 1.2 1.3	a user's requirements. Create and store the spreadsheet.	
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 4.2	Use suitable formatting options for displaying text and numeric values. 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 6.2	11 1 3 1 71	



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.



# **Optional Units: Ungraded**

#### **Access to HE Diploma Unit**

Unit Code:	QU026150		
Title:	Computer Data Protect	ction	
Unit Level:	Level 3 Unit 3 Credit:		3
Grading type:	Ungraded		
Academic subject content/other:	Academic subject content		
Assessment details:	Structured questions ~ 750 words Case study analysis ~ 750 words		

LE	ARNING OUTCOMES	ASSESSMENT CRITERIA
The	e learner will:	The learner can:
1	Understand current UK legislation relating to the use and protection of data.	<ul> <li>1.1 Explain the purpose of legislation related to data protection.</li> <li>1.2 Evaluate current legislation relating to the use and protection of data when using computers.</li> <li>1.3 Analyse examples of the application of current data protection legislation.</li> </ul>
2	Understand the need for control of data to ensure that it is accurate and secure.	<ul><li>2.1 Evaluate the need for control of data to ensure that it is accurate and secure.</li><li>2.2 Use examples to examine when data should or should not be controlled.</li></ul>



Unit Code:	QU025278	QU025278		
Title:	Developing Profe	Developing Professional Attributes		
Unit Level:	Level 3	Level 3 Unit 3 Credit:		
Grading type:	Ungraded	Ungraded		
Academic subject content/other:	Other	Other		
Assessment details:	Professional deve	SWOT analysis ~ 200 words Professional development plan ~ 300 words Essay ~ 1,000 words		

LEARNING OUTCOMES		ASSESSMENT CRITERIA		
The learner will:		The learner can:		
1	Understand the difference between positive and negative professional attributes.	1.1 1.2	Evaluate both positive and negative professional attributes. Link positive attributes to the role of a professional.	
2	Be able to reflect on own professional attributes and areas for development.	2.1 2.2 2.3	Produce SWOT analysis of own professional attributes. Evaluate SWOT analysis. Produce an individual professional development plan linked to the SWOT analysis.	
3	Understand which attributes are considered important by employers in a specific sector and are valued in the workplace.	3.1	Analyse which professional attributes are valued highly by employers within a specific sector.  Analyse why these professional attributes are important in a sector specific workplace.	
4	Understand the link between professional attributes and emotional intelligence.	4.1	Analyse the links between professional attributes and emotional intelligence.	



Unit Code:	QU008279		
Title:	Introduction to 3D		
Unit Level:	Level 3 Unit 3 Credit:		
Grading type:	Ungraded		
Academic subject content/other:	Academic Subject Content		
Assessment details:	Refer to assessment grid		

LEARNING OUTCOMES		ASSESSMENT CRITERIA		
The	learner will:	The learner can:		
1.	Be able to develop ideas in 2D and 3D.	1.1	Evaluate a range of sources and apply a variety of materials and methods.	
2.	Be able to demonstrate competence in a range of media and techniques in 3D.	2.1	Use appropriate formats for investigations that provide evidence of problem solving.	
3.	Be able to explore a wide range of research and experimentation selecting appropriate sources and construction techniques.	3.1	Make use of 3D media and processes, explaining a choice of materials and construction techniques.	
4.	Be able to identify influences, historical and contemporary, on own practice.	4.1	Undertake sketchbook research using both primary and secondary resources, reflecting a critical understanding of media and materials and including a record of exhibitions.	



Unit Code:	QU010767		
Title:	Introduction to the Gra	Introduction to the Grammar of English	
Unit Level:	Level 3 Unit 3 Credit:		3
Grading type:	Ungraded		
Academic subject content/other:	Academic Subject Content		
Assessment details:	Refer to assessment grid		

LEARNING OUTCOMES		ASSESSMENT CRITERIA		
The learner will:		The learner can:		
1	Understand what is meant by grammar.	1.1	used in the study of language.	
2	Understand word classes.	2.1	according to form, function and meaning.	
3	Understand phrase classes.	3.1	of structure and function.	
4	Understand clause components in sentence structure.	4.1	straightforward example of a compound and complex sentence.	
5	Understand function classes in straightforward sentence structures.	5.1 5.2	straightforward sentence.	



LEARNING OUTCOMES	ASSESSMENT CRITERIA		
The learner will:	The learner can:		
6 Understand the grammatical structures in a text.	6.1 Analyse text in terms of one of the following: form classes, function classes and clause structure.		



Unit Code:	QU018352			
Title:	Presentation Skill	ls		
Unit Level:	Level 3	Unit Credit:	3	
Grading type:	Ungraded			
Academic subject content/other:	Other	Other		
Assessment details:	Timed presentation	on		

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



Unit Code:	QU027084		
Title:	Presenting Information Using ICT		
Unit Level:	Level 3 Unit 3 Credit:		
Grading type:	Ungraded		
Academic subject content/other:	Other		
Assessment details:	Notes from a range of sources Presentation (word processed, spreadsheet, presentation) Presentation lecture notes and handouts ~ 300 words Presentation ~ 200 words		

LEARNING OUTCOMES		ESSMENT CRITERIA
The learner will:	The I	learner can:
Understand ways of using present information.	ICT to 1.1 1.2 1.3 1.4	different types of information. Analyse examples of information presented with clear layout and style.
Be able to use a range of I software applications to printed information.		Present text information for a given purpose using a variety of features in word processing software.  Present information for a given purpose using a variety of features in spreadsheet software.  Present information for a given purpose using a variety of features in presentation software.
Be able to integrate ICT so present information.	oftware to 3.1	Plan how to present integrated information using a range of ICT formats.  Range should include presentation, spreadsheet and word processing software.



LEARNING OUTCOMES	ASSESSMENT CRITERIA
The learner will:	The learner can:
	<ul><li>3.2 Present information to meet a specific brief.</li><li>3.3 Save information in a structured format so it can be found easily and justify choice.</li></ul>
E.g. embedding a chart produced in	a spreadsheet into a document or presentation.



Unit Code:	QU018630	QU018630		
Title:	Problem Solving in	Problem Solving in the Workplace		
Unit Level:	Level 3	Level 3 Unit 3 Credit:		
Grading type:	Ungraded	Ungraded		
Academic subject content/other:	Other	Other		
Assessment details:	Refer to assessme	Refer to assessment grid.		

LEARNING OUTCOMES		ASSESSMENT CRITERIA		
The learner will:		The learner can:		
1	Understand factors that may influence problem solving in the workplace.	1.1	Analyse factors which influence the choice of solution for problems.	
2	Know how to solve problems in the workplace.	2.1 2.2 2.3	taken to solve the workplace problems.	
3	Be able to apply solutions to workplace problems.	3.1 3.2	Select preferred solution to workplace problems. Justify the choice of solution.	



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

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 not skills used in a range of co within a given profession.		
2	Understand the importance of an awareness of cultural diversity for a given profession.	2.1 Evaluate the importance of awareness of cultural diversions a range of contexts given profession.	rsity	
3	Be able to evaluate own interpersonal skills, analysing strengths and areas to develop.	<ul><li>3.1 Evaluate own interpersonal analysing strengths and ar develop.</li><li>3.2 Evaluate ways of addressing to develop.</li></ul>	eas to	



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

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



Unit Code:	QU018318		
Title:	Study Skills		
Unit Level:	Level 3	Unit Credit:	3
Grading type:	Ungraded		
Academic subject content/other:	Other		
Assessment details:	Refer to assessment grid.		

LEARNING OUTCOMES	ASSESSMENT CRITERIA		
The learner will:	The learner can:		
Know how to manage and organise study time.	<ul> <li>1.1 Know how to manage and organise study time.</li> <li>1.2 Where necessary, prioritise and reschedule study plan explaining changes.</li> <li>1.3 Prioritise and meet assignment deadlines, negotiating new deadlines if needed.</li> <li>1.4 Devise a strategy for organising coursework.</li> </ul>		
Know how to participate in learning activities.	<ul><li>2.1 Know how to participate in learning activities.</li><li>2.2 Participate appropriately in classroom activities.</li></ul>		
3 Understand assignment requirements.	<ul> <li>3.1 Analyse assignment effectively identifying aims and objectives.</li> <li>3.2 Determine suitable format for assignment, effectively explaining decisions made.</li> </ul>		
4. Understand learning preferences.	<ul><li>4.1 Analyse different methods of learning.</li><li>4.2 Analyse methods of identifying own learning preferences.</li></ul>		



LEARNING OUTCOMES	ASSESSMENT CRITERIA		
The learner will:	The learner can:		
5 Be able to retrieve information from a range of sources.	<ul> <li>5.1 Retrieve information from a range of written texts using a range of reading skills.</li> <li>5.2 Scan source material, critically evaluating information, selecting accurate and detailed notes to suit purpose.</li> <li>5.3 Demonstrate the use of a recognised referencing system for retrieved information.</li> </ul>		



Unit Code:	QU025609	QU025609		
Title:	Work Placement	Work Placement		
Unit Level:	Level 3	Level 3 Unit 3 Credit:		
Grading type:	Ungraded			
Academic subject content/other:	Other			
Assessment details:	1500 word report			

LEARNING OUTCOMES		ASSESSMENT CRITERIA		
The learner will:		The learner can:		
1	Be able to analyse own work placement role within a work setting.	1.1	Evaluate own work placement role within the work setting.	
2	Understand the structure of the wider organisation.	2.1	Analyse the structure of the wider organisation.	
3	Be able to demonstrate how work experience relates to own course of study.		Evaluate how work experience relates to own course of study. Reflect on self-development over the period of the placement.	



Unit Code:	QU026155	QU026155		
Title:	Writing reports	Writing reports		
Unit Level:	Level 3	Level 3 Unit 3 Credit:		
Grading type:	Ungraded	Ungraded		
Academic subject content/other:	Other	Other		
Assessment details:		Report plan Presentation of report plan ~ 2-3 minutes Report ~ 1000 words		

LEARNING OUTCOMES		ASSESSMENT CRITERIA	
The learner will:		The learner can:	
	erstand the significance of the title in determining the content.	1.1 1.2	question or task.
	ole to plan and present the plan report	2.1 2.2	•
3 Be at	ole to structure a report.		out how the subject will be dealt with in the report.
4 Be at	ole to write in an appropriate style.	4.1	objective manner.
-	the conventions for owledging sources.	5.1	Acknowledge the work of other authors both during the report and in a list of references.



LEARNING OUTCOMES	ASSESSMENT CRITERIA	
The learner will:	The learner can:	
	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

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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