Skills & Education Group Access

Access Recognised by QAA

Access to HE Diploma (Science)

Diploma Guide

Valid From August 2025
Learning Aim Code: 40012906

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Access to HE Diploma Background and Aims

The Access to Higher Education Diploma is a full Level 3 UK qualification. It is regulated by the Quality Assurance Agency for Higher Education (QAA) which licenses Access Validating Agencies (AVAs) to accredit and award the Access to Higher Education Diploma in the UK.

Access to Higher Education Diplomas enable students to acquire the knowledge and skills necessary to progress to higher education. They are key to widening participation from groups traditionally underrepresented at higher education institutions and are therefore aimed particularly, though not exclusively, at adults without traditional qualifications.

The aims of the Access to HE Diploma are to:

- prepare students who are returning to education for progression to Higher Education, further training in a related vocational or occupational area
- help students develop the skills and knowledge they need to achieve on their chosen HE course or career pathway
- familiarise students with the teaching and learning methodologies and assessment strategies found in Higher Education Institutions (HEIs)
- help students to gain confidence in their abilities, to review and monitor their own progress and to become independent students
- develop students' research, planning, analytical and evaluation skills
- enable students to make informed choices about future progression routes.

Diploma development

Skills and Education Group Access has worked with curriculum specialists and higher education colleagues to develop the Access to HE Diploma (Science). Every Diploma is validated by the AVA through a robust and rigorous peer panel process which then recommends approval to the AVA's Access to HE Committee. By taking into consideration the views of Further and Higher Education practitioners, the AVA ensures that the Diploma meets all QAA requirements and that it enables students to complete a planned, balanced and coherent programme of study, through which they have been able to acquire a subject knowledge and develop academic skills which are relevant to the intended progression route(s).

C1 (34.1): This QAA recognised Access to HE Diploma is validated for delivery within the UK by a provider with a main base in the UK (including the Channel Islands and the Isle of Man) only.

C1 (34.2): Only students with a UK address (including BFO) can be registered for an Access to HE Diploma.

Diploma Specification

The QAA Diploma Specification states that the Access to HE Diploma is a:

- unitised qualification, based on units of assessment which are structured in accordance with the Access to HE unit specification
- credit-based qualification, operated in accordance with the terms of the Access to HE credit specification
- graded qualification, as determined by the Access to HE Grading Scheme.

About this qualification

AVA Diploma Access to HE Diploma	Main Classification (Sector Subject Area)	Sub-Classification
(Science)	2. Science and Mathematics	2.1. Science

This Diploma specification is valid from: 01/08/2025
Diploma revalidation date: 31/07/2026

The Access to HE Diploma (Science) provides students with a comprehensive foundation in various scientific disciplines, including biology, chemistry, physics, and mathematics. This course is specifically designed to prepare students for higher education leading to careers in science-related fields such as biomedical science, environmental science, pharmacy, and engineering. Students will gain essential knowledge, subject-specific skills, and transferable skills necessary for success in both academic and professional scientific environments.

A. Key Knowledge:

1. Biological Sciences:

- Understand the structure and function of cells, cellular processes, and systems physiology.
- Knowledge of genetics, evolution, and biochemical molecules, including DNA and protein synthesis, and their roles in biotechnology and medicine.
- Understanding human physiology, covering systems such as endocrine, circulatory, muscular, and nervous systems

2. Chemistry:

- Understanding fundamental and advanced chemical concepts, including organic chemistry, chemical reactions, and the chemistry of drugs and medicines
- Understanding thermodynamics, kinetics, energetics, and equilibria as they apply to chemical and biological systems

3. Physics and Mathematics:

- Understanding key physics principles such as Newtonian dynamics, electromagnetism, and particle physics, and their applications in medical contexts
- Development of mathematical skills in algebra, calculus, statistics, and numerical analysis necessary for scientific research

B. Subject-Specific Skills:

1. Laboratory and Practical Skills:

- Proficiency in practical laboratory techniques, conducting experiments, and analysing data.
- Application of safety procedures and ethical guidelines in scientific research.

2. Scientific Research and Analysis:

- Competence in scientific research methodologies, including data collection, statistical analysis, and report writing.
- Ability to synthesise scientific information and present findings effectively.

3. Advanced Understanding of Scientific Concepts:

- Application of complex scientific principles in real-world scenarios, such as understanding the chemical basis of diseases, pollution, and drugs.
- Knowledge of medical physics concepts like radiography and their practical applications in healthcare.

C. Transferable Skills:

1. Research and Academic Skills:

- Development of strong research skills, critical reading, and academic writing proficiencies.
- Information technology skills and the ability to effectively use technology in research and presentations.

2. Analytical and Problem-Solving Skills:

- Enhanced analytical thinking and problem-solving capabilities in scientific contexts.
- Proficiency in using mathematical models and computational tools to solve complex scientific problems.

3. Communication and Professional Skills:

- Improved communication skills necessary for conveying complex scientific information clearly and effectively.
- Understanding the importance of professionalism and teamwork in multidisciplinary environments.

Intended Progression Routes

D2.1 (52.2):: Access to HE Diplomas are intended to provide a preparation for study in UK higher education, but the award of a Diploma does not provide guaranteed entry to UK higher education programmes.

The following progression routes were agreed at the point of validation as being appropriate choices for students who achieve the Access to HE Diploma (Science), subject to the course entry requirements and application process.

Aeronautical and Aerospace Engineering	Masters in Biomedical Science
Aerospace Engineering	Mathematics and Physics
Architectural Technology	Mechanical Engineering
Chemistry	Medicinal and Pharmaceutical Chemistry
Civil Engineering	Music Technology
Civil & Structural Engineering	Nanotechnology
Clinical Technology	Nursing
Computer Science	Nutrition
Diagnostic Radiography	Nutrition & Public Health
Diagnostic Radiography and Imaging	Pharmaceutical & Chemical Science
Dietetics	Pharmacy
Electrical Engineering	Physics
Electronic and Electrical Engineering	Physics & Planetary Science
Environmental Biology	Physics, Particle Physics & Cosmology
Environmental Chemistry	Physiotherapy
Environmental Science	Radiography
Forensics and Analytical Science with Industrial Experience	Science
	Veterinary Science.

It is essential that providers delivering this Diploma consult receiving HEIs themselves to ensure that suitable and relevant progression opportunities are sound. Evidence of HEI consultation and progression possibilities will be identified in the provider's Programme Submission Document.

Access to HE Diploma provider assessment strategy advice

QAA states that the Access to HE Diploma provides *'HE progression opportunities for adults who, because of social, educational or individual circumstances may have achieved few, if any, prior qualifications'. They also state that, 'Students who are awarded the Diploma will have completed a planned, balanced and coherent programme of study, through which they have been able to acquire subject knowledge and develop academic skills which are relevant to the intended progression route(s)'*. Therefore all approved providers need to develop diploma assessment strategies which outline what assessment activities the students will undertake, how they will be used and why they have been chosen in order to achieve the learning aims:

1. **What** is the aim of the diploma assessment strategy?
2. **How** will it be achieved?
3. **Why** has this approach been chosen?

Assessment design:
Access to HE Diplomas should be assessed using innovative and contemporaneous methods, tailored to prepare students studying at Level 3 for study at Higher Education. Assessment design should be holistic, ensuring students can demonstrate attained knowledge, skills and behaviours in and across units and assessments should reflect those likely to be encountered on Higher Education courses in the same field of study. Specific assessment guidance should be provided for each unit to ensure consistency and fairness across all student achievements.

In addition, providers must ensure that assessment methods are chosen which afford students opportunities to demonstrate the requirements of the three Grading Standards; Knowledge and Understanding, Subject Specific Skills and Transferable Skills.

Assessment design should comply with the requirements of the QAA Grading Scheme (2024) and also be aligned to the principles of assessment: Validity, Authenticity, Reliability, Currency and Sufficiency (VARCS).

C1.1 (34.4), C2 (38-42), E2 (75,76), E4.1 (80.1, 80.2, 80.3): Tutor/Assessor qualifications and experience specifically required for delivery and assessment of this diploma:
Generally, and as a minimum, it is expected that provider staff teaching on the Diploma have the required professional competence and skills necessary for the mode(s) of delivery to be used, and the level of subject expertise necessary to teach and assess the units available on the Diploma.

Rules of Combination

Where options are available within a single set of rules of combination, which allow alternative requirements for the achievement of a named Diploma, the alternatives permitted by the options are consistent, in terms of academic challenge and demand, and will require equivalent standards for achievement, whenever and wherever it is delivered.

Access to HE Diploma (Science)	
Credit Value of the Diploma:	**60**
Students must achieve all the units within the Diploma.	
All Diplomas are 60 credits, irrespective of the place, subject or mode of study. Of the 60 credits 45 must be from graded units concerned with academic subject content, with the remaining 15 credits to be achieved from ungraded units. In addition, all students must study a minimum of **ten 3 credit units** and at least **one 9 or 6 credit unit up to a maximum of 30 credits**, which may or may not be graded.	
Students can achieve up to a maximum of 30 credits at Level 3 through credit transfer and the award of credit through the recognition of prior learning.	
Students undertaking any Access to HE Diploma, whatever their mode of study, must be: **a)** registered and certificated for units to a maximum value of 60 credits **b)** registered for units to the value of 60 credits no later than 84 days from the start date of their Access to HE course, or before the student makes a formal application to a higher education course through UCAS or any other application process, whichever date occurs first.	

Appendix 1 - Units of Assessment – Access to HE Diploma (Science)

For every unit included in the table, further information is included in the Unit Specifications, including learning outcomes and assessment criteria.

Grading Standards (Applied to all graded units)

1	**Knowledge and Understanding of the Subject**	**KU**
2	**Subject Specific Skills**	**SS**
3	**Transferable Skills**	**TS**

There are no mandatory units. Students must study a minimum of TEN, 3 credit units and at least ONE 6 or 9 credit unit up to a maximum of 30 credits.

Optional Units.

Graded Units. Choose 45 credits from:

Unit Title	National Code	Level	CV
Practical Science Skills	RA1/3/AA/01G	Three	3
Further Integration	RB1/3/AA/01G	Three	3
Algebra, Logarithms, Statistics and Calculus	RB1/3/AA/04G	Three	3
Exponentials, Logarithms, Trigonometry and Series	RB1/3/AA/05G	Three	3
Further Techniques for Algebra and Differentiation	RB1/3/AA/06G	Three	3
Kinematics	RB1/3/AA/07G	Three	3
Vectors and Numerical Methods	RB1/3/AA/08G	Three	3
Algebra and Functions	RB3/3/AA/01G	Three	3
Further Trigonometry	RB4/3/AA/01G	Three	3
Calculus	RB5/3/AA/01G	Three	3
Further Differentiation	RB5/3/AA/02G	Three	3
Numerical Analysis of Statistical Data	RB7/3/AA/01G	Three	3
Newtonian Dynamics	RC1/3/AA/01G	Three	3
Rotational Dynamics	RC1/3/AA/02G	Three	3
Waves and Optics	RC1/3/AA/04G	Three	3
Thermodynamics	RC4/3/AA/01G	Three	3
Electric Circuits	RC5/3/AA/01G	Three	3
The Properties and Applications of the Electromagnetic Spectrum	RC5/3/AA/03G	Three	3
Particle Physics	RC6/3/AA/02G	Three	3
Radioactivity in Medicine	RC8/3/AA/03G	Three	3
Moles, Equations and Acids	RD1/3/AA/04G	Three	3

Unit Title	National Code	Level	CV
Calculations and Patterns in Chemical Reactions	RD1/3/AA/06G	Three	3
Enthalpy, Rates and Equilibria	RD1/3/AA/07G	Three	3
Kinetics, Energetics and Acid-Base Equilibria	RD1/3/AA/08G	Three	3
Chemistry of Pollution	RD1/3/AA/10G	Three	3
Redox and Periodicity	RD1/3/AA/15G	Three	3
Atoms, Bonds and Structure	RD3/3/AA/01G	Three	3
Transition Elements and Electrochemistry	RD3/3/AA/02G	Three	3
Organic Compounds Containing Oxygen or Nitrogen	RD4/3/AA/02G	Three	3
Organic Concepts and Hydrocarbons	RD4/3/AA/03G	Three	3
Organic Compound Analysis	RD4/3/AA/04G	Three	3
DNA and Protein Synthesis	RH3/3/AA/08G	Three	3
Genetic Inheritance	RH3/3/AA/09G	Three	3
Practical Biology Skills	RH3/3/AA/10G	Three	3
Biodiversity	RH3/3/AA/12G	Three	3
Cellular Transport	RH3/3/AA/27G	Three	3
Photosynthesis	RH3/3/AA/14G	Three	3
Respiration in Cells	RH3/3/AA/15G	Three	3
Cell Division and Genetics	RH3/3/AA/18G	Three	3
Cells	RH3/3/AA/24G	Three	3
The Cellular Factory	RH3/3/AA/25G	Three	3
Human Musculoskeletal System	RH4/3/AA/04G	Three	3
The Cause and Control of Disease	RH4/3/AA/10G	Three	3
Nervous System	RH4/3/AA/14G	Three	3
Endocrine System	RH4/3/AA/26G	Three	3
Nutrition and Digestion	RH4/3/AA/30G	Three	3
Communicable Diseases	RH4/3/AA/34G	Three	3
Human Circulation and Gas Exchange	RH4/3/AA/35G	Three	3
Biochemical Molecules	RH5/3/AA/01G	Three	3
Enzymes	RH5/3/AA/02G	Three	3
Physics for Chemical and Biological Sciences	RA1/3/AA/02G	Three	6
The Laws of Physics	RC1/3/AA/03G	Three	6
Electricity and Electromagnetism	RC5/3/AA/02G	Three	6
Particle Physics and Nuclear Power	RC6/3/AA/01G	Three	6
Medical Physics: Waves ECGs and Radiography	RC8/3/AA/01G	Three	6
Kinetics, Energetics, Equilibria & Acid-Base Equilibria	RD1/3/AA/09G	Three	6
Organic Chemistry	RD4/3/AA/01G	Three	6
Chemistry of Drugs and Medicines	RD6/3/AA/01G	Three	6
Cell Biology	RH3/3/AA/20G	Three	6
Molecules of Life	RH3/3/AA/23G	Three	6

Unit Title	National Code	Level	CV
Systems Physiology	RH4/3/AA/18G	Three	6
Infection and Immunity	RH4/3/AA/29G	Three	6
Human Physiology	RH4/3/AA/33G	Three	6
Genetics and Evolution	RH3/3/AA/21G	Three	9

Ungraded Units. Choose 15 credits from:

Unit Title	National Code	Level	CV
The Safe and Ethical Use of Generative Artificial Intelligence	CK5/3/AA/01U	Three	3
Academic Writing Skills	HC7/3/AA/01U	Three	3
Reading and Note Making	HC7/3/AA/02U	Three	3
Information Literacy Skills	HC7/3/AA/06U	Three	3
Research Skills	HC7/3/AA/17U	Three	3
Presentation Skills	HC7/3/AA/18U	Three	3
Numeracy	HD4/3/AA/01U	Three	3
Momentum and Energy	RB1/3/AA/02U	Three	3
Algebra and Functions	RB3/3/AA/01U	Three	3
Waves and Optics	RC1/3/AA/01U	Three	3
Particle Physics	RC6/3/AA/01U	Three	3
Chemical Reactions	RD1/3/AA/01U	Three	3
Chemistry and Society	RD1/3/AA/04U	Three	3
Redox and Periodicity	RD1/3/AA/05U	Three	3
Atoms, Bonds and Structure	RD3/3/AA/01U	Three	3
Practical Biology Skills	RH3/3/AA/06U	Three	3
Cells	RH3/3/AA/08U	Three	3
Cellular Transport	RH3/3/AA/09U	Three	3
Fundamentals of Biological Systems	RH3/3/AA/10U	Three	3
Conducting a Science Project	RA1/3/AA/01U	Three	6
The Structure and Function of Cells	RH3/3/AA/01U	Three	6

Inclusive and Exclusive Rules of Combination

Barred Unit 1	ID 1	CV	Barred Unit 2	ID2	CV
Communicable Diseases	RH4/3/AA/34G	3	Infection and Immunity	RH4/3/AA/29G	6
Cells	RH3/3/AA/24G	3	Fundamentals of Biological Systems	RH3/3/AA/10U	3
Cells	RH3/3/AA/24G	3	Cells	RH3/3/AA/08U	3
Cells	RH3/3/AA/08U	3	Fundamentals of Biological Systems	RH3/3/AA/10U	3

Barred Unit 1	ID 1	CV	Barred Unit 2	ID2	CV
The Cellular Factory	RH3/3/AA/25G	3	Cellular Transport	RH3/3/AA/13G	3
Cell Biology	RH3/3/AA/20G	6	Cells	RH3/3/AA/24G	3
Cellular Transport	RH3/3/AA/13G	3	Cells	RH3/3/AA/24G	3
The Structure and Function of Cells	RH3/3/AA/01U	6	The Cellular Factory	RH3/3/AA/25G	3
The Structure and Function of Cells	RH3/3/AA/01U	6	Cells	RH3/3/AA/24G	3
The Structure and Function of Cells	RH3/3/AA/01U	6	Cells	RH3/3/AA/08U	3
Genetic Inheritance	RH3/3/AA/09G	3	Genetics and Evolution	RH3/3/AA/21G	9
Molecules of Life	RH3/3/AA/23G	6	Photosynthesis	RH3/3/AA/14G	3
Molecules of Life	RH3/3/AA/23G	6	Respiration in Cells	RH3/3/AA/15G	3
Molecules of Life	RH3/3/AA/23G	6	Cell Biology	RH3/3/AA/20G	6
Practical Science Skills	RA1/3/AA/01G	3	Practical Biology Skills	RH1/3/AA/10G	3
Practical Science Skills	RA1/3/AA/01G	3	Practical Biology Skills	RH3/3/AA/06U	3
Nutrition and Digestion	RH4/3/AA/30G	3	Systems Physiology	RH4/3/AA/18G	6
Organic Chemistry	RD4/3/AA/01G	6	Organic Compounds Containing Oxygen or Nitrogen	RD4/3/AA/02G	3
Organic Chemistry	RD4/3/AA/01G	6	Organic Concepts and Hydrocarbons	RD4/3/AA/03G	3
Electricity and Electromagnetism	RC5/3/AA/02G	6	Electric Circuits	RC5/3/AA/01G	3
Kinetics, Energetics, Equilibria & Acid-Base Equilibria	RD1/3/AA/09G	6	Enthalpy, Rates and Equilibria	RD1/3/AA/07G	3
Kinetics, Energetics, Equilibria & Acid-Base Equilibria	RD1/3/AA/09G	6	Kinetics, Energetics and Acid-Base Equilibria	RD1/3/AA/08G	3
Atoms, Bonds and Structure	RD3/3/AA/01G	3	Atoms, Bonds and Structure	RD3/3/AA/01U	3
Redox and Periodicity	RD1/3/AA/05G	3	Redox and Periodicity	RD1/3/AA/03U	3
Waves and Optics	RC1/3/AA/04G	3	Waves and Optics	RC1/3/AA/01U	3
Particle Physics	RC6/3/AA/02G	3	Particle Physics	RC6/3/AA/01U	3

Barred Unit 1	ID 1	CV	Barred Unit 2	ID2	CV
Particle Physics and Nuclear Power	RC6/3/AA/01G	6	Particle Physics	RC6/3/AA/01U	3
Particle Physics	RC6/3/AA/02G	3	Particle Physics and Nuclear Power	RC6/3/AA/01G	6