

Access to HE (Science)

Diploma Guide

1. Diploma Background and Aims

Science is a well-established area of business for the Access Validating Agency (AVA). It is consistently one of the most popular choices of Access to HE Diploma after Health-related subjects and providers have been successfully offering Access to HE Science provision for many years. The Access to HE team worked with FE and HE colleagues to develop one AVA Access to HE Diploma in Science that offers a range of cohesive subject areas to support students who wish to progress into Higher Education (HE) programmes, both within provider's own centres and a range of HE institutes locally, regionally and nationally.

The AVA had the support of providers to develop the new Access to HE Diploma (Science) with the Access to HE Diploma Specification to reflect the needs of all providers wishing to adopt the diploma.

The aims of the Access to HE Diploma (Science) are to:

- prepare students who are returning to education for progression to Higher Education and further training in Science related vocational or occupational areas
- 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 their future progression routes
- develop specific Science skills and knowledge to enhance employment prospects
- help students to understand the role of Science in the world at large

2. Course Recognition

The Access to HE Diploma (Science) meets the AVA's policies and priorities for new provision. Skills and Education Group's approach to developing the new Access to HE Diploma (Science) is transparent, systematic and as consistently applied as to all other named Access to HE Diplomas. Skills and Education Group ensures that all Access to HE Diplomas are fit for purpose in providing an appropriate preparation for study in higher education for adults from defined target groups.

Skills and Education Group has worked with curriculum specialists and business development managers to co-ordinate and oversee the development of the Access to HE Diploma (Science). This has involved meetings to agree curriculum content, level, grading descriptors and general rules of combination. A pre-determined timetable of events was drawn up where providers were invited to meetings, or to contribute electronically if unable to attend these events, to meet the agreed deadlines.

3. Diploma and Credit Specification

The QAA Diploma and Credit 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.

www.accesstohe.ac.uk/AboutUs/Publications/Pages/Default.aspx

Skills and Education Group has ensured that the proposals within this document meet the requirements of The Access to Higher Education Diploma and Credit Specification and any other regulatory information about the Access to HE Diploma, and that students who are awarded the Access to HE Diploma (Science) will have completed 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).

4. Target Groups

Skills and Education Group has developed the Access to HE Diploma (Science) specifically for students who wish to develop their academic, study and vocationally related skills and aptitudes to prepare for the application and progression into HE programmes related to Science. This Diploma is aimed at a range of target groups, including people who are returning to education after being employed in similar sectors; people seeking qualifications to enable them to change their career path and students seeking a foundation in a number of subjects related to Science before moving on to higher level study in the UK.

5. Intended Progression Routes

Skills and Education Group has worked with FE and HE experts, employers and specialised recruitment agencies during the development process to agree the units and any Rules of Combination (RoC) so that the Access to HE Diploma (Science) provides a suitable preparation for higher education and future employment. Providers and others wishing to adopt or utilise the Access to HE Diploma (Science) have suggested the following possible progression routes for students:

- Aeronautical and Aerospace Engineering
- Aerospace Engineering
- Architectural Technology
- Chemistry
- Civil Engineering
- Civil & Structural Engineering
- Clinical Technology
- Computer Science
- Diagnostic Radiography
- Masters in Biomedical Science
- Mathematics and Physics
- Mechanical Engineering
- Medicinal and Pharmaceutical Chemistry
- Music Technology
- Nanotechnology
- Nursing
- Nutrition
- Nutrition & Public Health

- Diagnostic Radiography and Imaging
- Dietetics
- Electrical Engineering
- Electronic and Electrical Engineering
- Environmental Biology
- Environmental Chemistry
- Environmental Science
- Forensics and Analytical Science with Industrial Experience
- Pharmaceutical & Chemical Science
- Pharmacy
- Physics
- Physics & Planetary Science
- Physics, Particle Physics & Cosmology
- Physiotherapy
- Radiography
- Science
- Veterinary Science.

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

The award of a Diploma does not provide guaranteed entry to UK higher education programmes.

5.1 Entry Requirements

There are no formal entry requirements for this diploma, however based on the level of study it is suggested that students have the following qualifications upon entry:

English – Level 2 Functional Skills, Grade C/4 GCSE

Mathematics – Level 2 Functional Skills, Grade C/4 GCSE

Many HEI's have the above Level 2 requirements in addition to Level 3 qualification requirements.

Students should always check the entry requirements of the higher education course they intend to apply to before enrolling on an Access to HE diploma.

6. Rules of Combination

6.1 Required achievements for the Access to HE Diploma

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.

Students can achieve up to a maximum of 9 credits at Level 2 and 21 from 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.

6.2 Differentiated Performance

Consideration has been given to the allocation of Grading Descriptors 'to ensure that they provide opportunities for differentiation of performance consistent with the requirements of the grade descriptors'.

6.3 Curriculum, Delivery and Assessment

It is expected that 'information provided about unit content, delivery and assessment methods is sufficient to ensure consistency in the required standards of achievement, whenever and wherever the Diploma is delivered'.

The following assessment methods could be used, but not limited to:

- Essays
- Presentations
- Academic posters
- Case Studies
- Blogs and Vlogs
- Self-help style leaflets/journal articles
- Animated Biteables/Doodly's or some such video software packages
- Reports
- Examinations
- Time constrained activities such as open book tests

6.4 Credit Transfer and Recognition of Prior Learning

Credit Transfer provides a means by which students who have already achieved units of an Access to HE Diploma, either with the same centre/AVA or another, can transfer their credits and grades, if applicable, to a new diploma registration.

The Recognition of Prior Learning (RPL) provides a means by which students who have already achieved some of the requirements for the award of the Access to

HE Diploma, through some means other than study on an Access to HE course, can be awarded the Access to HE Diploma without necessarily being required to undertake units for which equivalent achievement has already been demonstrated.

No more than 30 credits required for the award of the Access to HE Diploma may be awarded through Credit Transfer or RPL.

Students registering onto the Access to HE Diploma (Science) may have undertaken a Level Two 'pre-Access' course. It is expected that providers will have offered students written guidance on Skills and Education Group's application process for RPL of these credits or other credit or work achievement that may allow exemption from some units within the Access to HE Diploma. Students must be advised that RPL cannot be graded.

6.5 Successful Completion Criteria

Skills and Education Group expects that any successful completion criteria that is in addition to the Diploma's rules of combination do not make demands which impacts on achievement.

6.6 Special Requirements

There are no special requirements needed for this Diploma although laboratory facilities, computing environments equipped with PCs and specialist software appropriate to the course may be recommended.

6.7 Supporting Students

Skills and Education Group expects all students will be offered appropriate support during their course of study until they have completed the qualification. Students will be encouraged to use a range of resources to support their progress and to engage with appropriate staff in their organisation for further information and advice. The assessment methodology must be appropriate and rigorous for an individual or groups of students.

For students with particular requirements, Providers should refer to the Access to Fair Assessment Policy and Procedure which can be found in the Provider Handbook.

The Access to Fair Assessment Policy and Procedure section in the Skills and Education Group handbook gives clear guidance on the Reasonable Adjustment and Special Consideration arrangements that can be made to take account of particular needs or learning difficulty, without compromising the achievement of the assessment criteria.

6.8 Credit Accumulation and Recognition of Student Achievement

Students accumulate credit towards the award of the Diploma. In general they do this by achieving units of a particular credit value (3, 6 or 9 credits) through the

process of assessment on the Access to HE Diploma (Science), but may also do this through the processes of credit transfer and RPL.

Student achievement is recognised both through the award of level, credit and grades (as identified on an achievement transcript) and the award of the Diploma (as identified on a certificate), subsequent to the student having satisfied the requirements of the rules of combination of the Access to HE Diploma (Science). The award of the Diploma will, therefore, indicate that a student has successfully met the generic requirements for achievement of an Access to HE Diploma, as well as the particular requirements of the Access to HE Diploma (Science).

Skills and Education Group expects that where the Access to HE Diploma (Science) is intended to lead to further study for a professional qualification, students must be made aware of any additional entry requirements that are needed to study at a Higher Education Institution.

7. Quality Assurance

Skills and Education Group operates robust quality assurance arrangements for the proposed Diploma and maintains the quality and standards of this recognised Access to HE Diploma. Skills and Education Group makes Access to HE awards to students who have met the specified requirements for achievement and performance. Please visit the Skills and Education Group website for the Access to HE Provider Handbook.

7.1 Operation of moderation processes

Skills and Education Group maintains a system of regular external moderation, conducted by appointed external moderators. External moderator training is scheduled during the year in preparation for their visits to allow Skills and Education Group to update external moderators. Where a provider is new to Access to HE, or is running a new Diploma for the first time, or has transferred from another AVA, a 'support visit' is also scheduled.

Skills and Education Group may arrange for support or supplementary visits in the following situations:

Support Visits

- The first run of a new Diploma as a support to the provider. A member of Skills and Education Group's Access to HE team may also accompany the external moderator
- When a provider has transferred from another AVA.

Supplementary Visits

- When a Diploma has undergone substantial quality assurance or curriculum development or is in fragile circumstances. This additional visit usually incurs a chargeable Quality Intervention fee.

Where a provider offers various start points, an external moderator will arrange a first visit and the final moderation and Awards Board at the most appropriate time within the academic year.

7.2 Review of moderation guidance to ensure continued currency

Skills and Education Group routinely reviews and updates its guidance to ensure its continuing currency. Moderation guidance updates are generated from external moderator visits and final moderation reports, external moderator mandatory training events and Skills and Education Group standardisation events. The requirements of the Access to HE Diploma Specification have been incorporated within moderation guidance.

7.3 Moderation Reports

External moderators report regularly to Skills and Education Group on all aspects of course organisation, including registration, content, assessment design and practice (including internal moderation, assessment and grading decisions) - for which they are responsible.

Skills and Education Group operates standard procedures for responding to external moderators' reports, including receiving and responding promptly to individual external moderation reports, providing copies of external moderators' reports to appropriate provider/centre staff, and ensuring that matters raised in reports that require specific action by providers are brought to providers' attention, a clear timescale for action is given, and implementation of actions is confirmed.

Skills and Education Group uses a risk rating approach; the outcomes of external moderator visits contribute to risk ratings for individual Diplomas. Higher level risk rates are likely to instigate sanctions and provider quality assurance teams are required to address all resulting conditions with some urgency.

Skills and Education Group will introduce a Centre Moderation Report that summarises the findings and outcomes for all Diplomas delivered by a Centre.

7.4 Course Monitoring and Review

Skills and Education Group monitors and reviews Access to HE Diplomas delivered by providers on a regular (normally annual) basis. Two visit reports with associated risk rates and supplementary visit reports as appropriate are used to review provision. Skills and Education Group collects and analyses statistical data about Access to HE Diplomas, students and their individual achievement.

7.5 Standardisation

Skills and Education Group takes steps to ensure that equivalent standards and requirements for achievement apply on different Access to HE Diplomas, within Skills and Education Group and across different student cohorts, with reference to

QAA's Access to HE Diploma qualification and credit specifications and grading requirements.

Skills and Education Group holds annual standardisation events that are mandatory for all Access to HE providers. Fines are incurred where an Access to HE Diploma has not been represented at an appropriate event. The agenda for each event is based on recommendations from the Lead Moderator Standardisation Report of the previous year. Study Skills is often a focus, with an emphasis on a different element each year. Grading is also a key feature of all events.

Skills and Education Group also expects that providers hold internal standardisation events. The external moderator is tasked to discuss this activity and outcomes during visits.

7.6 Award of the Access to HE Diploma

Skills and Education Group operates standard specified procedures for the award of Access to HE Diplomas to students that are consistent with the Access to HE Diploma and credit specifications, grading requirements and assessment regulations. The external moderation process ensures that all external moderator decisions to recommend the award of the Access to HE Diploma are made with confidence that all regulations and specification requirements have been met. The formal Awards Board is made up of appropriate personnel in line with Skills and Education Group guidelines and formal decisions to award credit and the Access to HE Diploma are agreed before the Recommendation for the Award of Credit (RAC) is signed by the tutor, the internal moderator and the external moderator for each Diploma. Award Board minutes and copies of the signed RACs are received by Skills and Education Group within one working day of the Awards Board.

The AVA takes immediate action to record and remedy any errors relating to the award or certification of the Access to HE Diploma. Skills and Education Group advises QAA immediately of any major errors in the issuing of Diploma certificates, including providing information on how errors were remedied and how such errors will be avoided in the future.

7.7 Data Systems

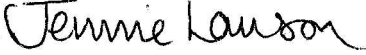
Skills and Education Group has a dedicated and secure data system for Access to HE. All current Diploma, provider and student information is maintained and all student certification is generated from this system.

7.8 Issue and Dispatch of Access to HE Diplomas and Achievement Transcripts

All students who have been awarded the Access to HE Diploma are issued the AVA's Access to HE Diploma certificate which has a standard format. Skills and Education Group operates a service standard that ensures that all unit transcripts and Diploma certificates are forwarded on to providers within 15 working days of the Awards Board. Providers commit to return any unclaimed certificates to the AVA. All certificates are numbered and kept secure.

8. Person authorising development of the Diploma Specification

I confirm that the Diploma meets QAA's qualification requirements and will be quality assured in accordance with this Diploma Specification. All providers delivering this Diploma and external moderators responsible for quality assuring it will have a copy of this Diploma Specification.

Name: (please print)	Jennie Lawson
Signature:	
Date:	2 nd October 2023
Post held:	Director of Access to HE

This agreement will be reviewed by the AVA regularly.

Appendix 1 - Units of Assessment

Grading Descriptors

1	Understanding of the Subject	US	5	Communication and Presentation	CP
2	Application of Knowledge	AK	6	Autonomy / Independence	AI
3	Application of Skills	AS	7	Quality (Mandatory)	QU
4	Use of Information	UI			

Access to HE Diploma (Science) Units

For every unit included in the table, further information is included in the Unit Specification, including learning outcomes and assessment criteria. All units must be set out using the AVA standard format.

Mandatory Unit (3 credits must be selected from this group)

Unit	Unit ID	Level	CV
Study Skills: Academic Writing Skills	YHS243	Three	3

Optional Units

Optional Graded Units (45 credits must be selected from this group)

Unit Title	Unit ID	Level	CV
Biology: Biochemical Molecules	YHS248	Three	3
Biology: Biodiversity	YHS250	Three	3
Biology: Biotechnology	CER021	Three	3
Biology: Body Structure and Function	AAA001	Three	9
Biology: Cell Biology	CER030	Three	6
Biology: Cell Differentiation and Tissues	CER031	Three	3
Biology: Cells	CER032	Three	3
Biology: Cellular Transport	YHS396	Three	3
Biology: Communicable Diseases	CER042	Three	3
Biology: Control and Co-ordination	CER059	Three	6
Biology: Co-ordination	CER060	Three	3
Biology: Defence against Disease	CER071	Three	3
Biology: Digestion and Nutrition	YHS322	Three	3
Biology: DNA and Protein Synthesis	YHS252	Three	3
Biology: Endocrine System	YHR994	Three	3
Biology: Enzymes	CER094	Three	3
Biology: Genetic Inheritance	CER114	Three	3
Biology: Genetics	YHS404	Three	6
Biology: Genetics and Evolution	CER116	Three	6
Biology: Human Cardiovascular System	CER133	Three	3
Biology: Human Circulation and Gas Exchange	CER134	Three	3
Biology: Human Endocrine System	YHS321	Three	3
Biology: Human Gas Exchange System	CER135	Three	3
Biology: Human Growth and Development	YHS406	Three	6
Biology: Human Musculoskeletal System	CER137	Three	3
Biology: Human Physiology	CER138	Three	6
Biology: Human Urinary System	AAA006	Three	3
Biology: Infection and Immunity	CER146	Three	6
Biology: Microbiology	CER183	Three	6
Biology: Molecules of Life	CER184	Three	6

Unit Title	Unit ID	Level	CV
Biology: Nervous System	CER186	Three	3
Biology: Non-Infectious Disease	CER187	Three	3
Biology: Nutrition and Digestion	AAA014	Three	3
Biology: Pathogens and Disease	CER198	Three	9
Biology: Photosynthesis	CER481	Three	3
Biology: Practical Biology Skills	CER208	Three	3
Biology: Respiration in Cells	YHS411	Three	3
Biology: Systems Physiology	CER270	Three	6
Biology: The Cellular Factory	CER274	Three	3
Biology: Urinary System	YHS320	Three	3
Chemistry: Analytical Chemistry	CER430	Three	6
Chemistry: Atoms, Bonds and Structure	CER318	Three	3
Chemistry: Calculations and Patterns in Chemical Reactions	CER436	Three	3
Chemistry: Chemistry and Society	CER326	Three	3
Chemistry: Chemistry for Biologists	CER438	Three	6
Chemistry: Chemistry of Drugs and Medicines	CER439	Three	6
Chemistry: Energy, Equilibria and pH	CER453	Three	6
Chemistry: Enthalpy, Rates and Equilibria	CER456	Three	3
Chemistry: Enthalpy, Rates and Redox	CER457	Three	6
Chemistry: Kinetics, Energetics and Acid-Base Equilibria	CER466	Three	3
Chemistry: Kinetics, Energetics, Equilibria & Acid-Base Equilibria	NEW	Three	6
Chemistry: Moles, Equations and Acids	CER471	Three	3
Chemistry: Organic Chemistry	YHS418	Three	6
Chemistry: Organic Compound Analysis	CER478	Three	3
Chemistry: Organic Compounds Containing Oxygen or Nitrogen	CER373	Three	3
Chemistry: Organic Concepts and Hydrocarbons	CER374	Three	3
Chemistry: Practical Chemistry Skills	YHS246	Three	3
Chemistry: Redox and Periodicity	CER487	Three	3
Chemistry: Transition Elements and Electrochemistry	CER499	Three	3
Computing: Application of Systems and Communications Technology	CER315	Three	3
Computing: Business Information Technology	CER323	Three	6
Computing: Components of Computer Systems	CER327	Three	6
Computing: Computational Methods	CER328	Three	3
Computing: Computer Architecture	CER329	Three	3
Computing: Database Development	YHS229	Three	6
Computing: Digital Imaging and Video Production	CER335	Three	6
Computing: Emerging Technologies	CER339	Three	3
Computing: IT in Organisations	CER152	Three	3
Computing: Multimedia Authoring	CER369	Three	6
Computing: Multimedia Products	CER370	Three	9
Computing: Networks	CER371	Three	3
Computing: Programming Constructs	CER385	Three	6
Computing: Project Development	CER386	Three	6
Computing: Software Development	CER402	Three	6
Computing: Spreadsheet Modelling	CER260	Three	6
Computing: Systems Analysis	YHS230	Three	6

Unit Title	Unit ID	Level	CV
Computing: Web Page Design and Production	CER424	Three	3
Computing: Web Site Design and Production	YHS231	Three	6
Economics: Debates, Theories and Instructions	CER334	Three	3
Economics: Tax, Inflation and the Balance of Payments	CER410	Three	3
Engineering: AC Theory	CER427	Three	9
Engineering: Aerospace Engineering	CER428	Three	3
Engineering: Automotive and Aerospace Engineering	CER432	Three	6
Engineering: Automotive Engineering	CER433	Three	3
Engineering: Control Systems	CER444	Three	3
Engineering: Design Project	CER445	Three	3
Engineering: Electric Motors	CER449	Three	3
Engineering: Electronics	CER452	Three	6
Engineering: Heat Transfer and Chemical Reactors	CER463	Three	6
Engineering: Materials Engineering	CER467	Three	3
Engineering: Solid Mechanics	CER494	Three	6
Environmental Science: Atmospheric Pollution and Sunlight	CER431	Three	3
Environmental Science: Conservation Management	CER441	Three	3
Environmental Science: Ecological Field Techniques	CER446	Three	3
Environmental Science: Ecology and the Environment	CER336	Three	6
Environmental Science: Ecology, Ecosystems and Conservation	CER447	Three	6
Environmental Science: Energy Resources	CER454	Three	3
Environmental Science: Soils	CER493	Three	3
Environmental Science: Water Pollution	CER502	Three	3
Environmental Science: Water Resources	CER503	Three	3
Health Science: Stress and Eating Disorders	CER265	Three	3
Mathematics: Algebra	CER429	Three	6
Mathematics: Algebra and Functions	CER313	Three	3
Mathematics: Algebra, Logarithms, Statistics and Calculus	YHR987	Three	3
Mathematics: Calculus	CER324	Three	3
Mathematics: Calculus and Pure Maths	CER325	Three	6
Mathematics: Continuous Probability Distributions	CER443	Three	3
Mathematics: Coplanar Forces and Moments	CER330	Three	3
Mathematics: Data Handling	CER068	Three	3
Mathematics: Exponentials, Logarithms, Trigonometry and Series	CER343	Three	3
Mathematics: Further Calculus	CER459	Three	6
Mathematics: Further Differentiation	CER111	Three	3
Mathematics: Further Integration	CER112	Three	3
Mathematics: Further Mechanics	CER460	Three	6
Mathematics: Further Statistics	CER461	Three	6
Mathematics: Further Techniques for Algebra and Differentiation	YHS468	Three	3
Mathematics: Further Trigonometry	YHS245	Three	3
Mathematics: Kinematics	CER465	Three	3
Mathematics: Mechanics	CER470	Three	6

Unit Title	Unit ID	Level	CV
Mathematics: Momentum and Energy	CER472	Three	3
Mathematics: Numerical Analysis of Statistical Data	CER189	Three	3
Mathematics: Numerical Methods and Complex Numbers	CER372	Three	3
Mathematics: Statistics	CER262	Three	6
Mathematics: Variable Acceleration, Circular Motion and Simple Harmonic Motion	CER506	Three	3
Mathematics: Vectors and Matrices	CER422	Three	3
Mathematics: Vectors and Numerical Methods	YHS469	Three	3
Physics: Electric Circuits	CER448	Three	3
Physics: Electricity and Electromagnetism	CER338	Three	6
Physics: Electricity, Induction and Electromagnetism	CER450	Three	9
Physics: Electromagnetism	YHS238	Three	3
Physics: Energy Transfer and Fluid Mechanics	CER455	Three	3
Physics: Medical Physics: Radiology and Medical Imaging	YHS482	Three	3
Physics: Medical Physics: Waves ECGs and Radiography	CER181	Three	6
Physics: Newtonian and Rotational Dynamics	CER473	Three	6
Physics: Newtonian Dynamics	CER474	Three	3
Physics: Nuclear Physics	CER475	Three	3
Physics: Particle Physics	CER479	Three	3
Physics: Particle Physics and Nuclear Power	CER480	Three	6
Physics: Radioactivity in Medicine	CER227	Three	3
Physics: Rotational Dynamics	CER491	Three	3
Physics: Thermodynamics	CER418	Three	3
Physics: Thermodynamics and Fluid Mechanics	CER498	Three	6
Physics: Waves and Optics	CER304	Three	3
Psychology: Aggression	YHR986	Three	3
Psychology: Biopsychology: Behaviour and Drugs	YHS240	Three	3
Psychology: Biopsychology: Behaviour and the Brain	CER020	Three	3
Psychology: Child Development	YHS241	Three	3
Psychology: Child Development Early Socialisation	YHS242	Three	3
Psychology: Cognitive Psychology	CER041	Three	3
Psychology: Defining Abnormality and Understanding Psychological Disorders	CER224	Three	6
Psychology: Developmental Psychology	CER076	Three	6
Psychology: Evolutionary Psychology	CER342	Three	3
Psychology: Health Psychology	CER126	Three	6
Psychology: Intelligence	CER148	Three	3
Psychology: Personality Theories	CER201	Three	3
Psychology: Perspectives in Psychology	CER202	Three	3
Psychology: Psychological Disorders and Therapeutic Strategies	CER391	Three	3
Psychology: Psychological Profiling	CER225	Three	3
Psychology: Research Skills	CER235	Three	3
Psychology: Social Interaction	CER400	Three	3
Psychology: Statistics for Psychology	CER263	Three	3
Science: Data Collection and Analysis	CER067	Three	3
Science: Practical Science Skills	CER210	Three	3

Unit Title	Unit ID	Level	CV
Social Policy: Social Policy and the British Welfare State	CER249	Three	6
Sociology: Globalisation and Development	YHS312	Three	6

Optional Ungraded units (12 credits must be selected from this Group)

Unit Title	Unit ID	Level	CV
Biology: Exploring Biochemical Molecules	YHS249	Three	3
Biology: Exploring Cells	CER563	Three	3
Biology: Exploring Cellular Transport	YHS256	Three	3
Biology: Exploring Human Sex and Reproduction	YHS399	Three	3
Biology: Exploring Nutrition and Digestion	YHS402	Three	3
Biology: Exploring Practical Biology Skills	CER566	Three	3
Biology: Fundamentals of Biological Systems	CER109	Three	3
Chemistry: Chemical Reactions	CER437	Three	3
Chemistry: Exploring Atoms, Bonds and Structure	CER567	Three	3
Chemistry: Exploring Chemistry and Society	CER568	Three	3
Engineering: Exploring Electronics	CER611	Three	6
English: Reading	CER485	Two	3
English: Speaking and Listening	CER495	Two	3
English: Writing	CER505	Two	6
Environmental Science: Exploring Conservation Management	CER573	Three	3
Mathematics: Exploring Algebra and Functions	CER574	Three	3
Mathematics: Exploring Calculus and Pure Maths	CER576	Three	6
Mathematics: Exploring Momentum and Energy	CER577	Three	3
Mathematics: Exploring Number and Graphical Representation	CER476	Two	3
Mathematics: Exploring Numerical Analysis of Statistical Data	CER614	Three	3
Mathematics: Mathematics for Nursing and Midwifery	CER468	Two	6
Mathematics: Shape and Space	CER492	Two	3
Physics: Exploring Medical Physics: Radiology and Medical Imaging	YHS237	Three	3
Physics: Exploring Particle Physics	CER571	Three	3
Physics: Exploring Waves and Optics	CER572	Three	3
Psychology: Exploring Social Interaction	CER595	Three	3
Science: Conducting a Science Project	CER578	Three	6
Science: Exploring Laboratory Skills and Experimental Design	CER579	Three	3
Science: Life Processes and Living Things	CER162	Two	3
Science: Materials and their Properties	CER171	Two	3
Study Skills: Advanced Information Technology	CER007	Three	6
Study Skills: Communication Skills	CER045	Three	6
Study Skills: Communications	CER046	Three	3
Study Skills: Databases	CER070	Three	3
Study Skills: Exam Techniques and Practice	CER099	Three	3
Study Skills: Group Processes	CER118	Three	3
Study Skills: Higher Education Toolkit	CER132	Three	6
Study Skills: Information Literacy Skills	CER147	Three	3
Study Skills: Interview Skills and Group Presentations	CER150	Three	3
Study Skills: Numeracy	CER188	Three	3

Unit Title	Unit ID	Level	CV
Study Skills: Organisation and Evaluation of Study	CER194	Two	3
Study Skills: Organisation and Evaluation of Study	CER195	Three	3
Study Skills: Presentation Skills	CER215	Three	3
Study Skills: Reading and Note making	CER228	Three	3
Study Skills: Reflective Practice	CER230	Three	3
Study Skills: Research Skills	CER236	Three	3
Study Skills: Research Skills: Project	CER238	Three	6
Study Skills: Researching and Understanding Opportunities in Higher Education	CER240	Three	3
Study Skills: Spreadsheet Software	CER261	Three	3
Study Skills: Use of Information and Communication Technology	CER293	Three	3
Study Skills: Using IT for Study	CER296	Two	3
Study Skills: Using Word Processing Software	CER613	Two	3
Study Skills: Word Processing	CER306	Three	3
Study Skills: Work Experience	CER307	Three	6

Appendix 2 - Inclusion and exclusion rules of combination

Barred Unit 1	ID 1	CV	Barred Unit 2	ID2	CV
Biology: Biochemical Molecules	YHS248	3	Biology: Exploring Biochemical Molecules	YHS249	3
Biology: Body Structure and Function	AAA001	9	Biology: Human Cardiovascular System	CER133	3
Biology: Body Structure and Function	AAA001	9	Biology: Human Circulation and Gas Exchange	CER134	3
Biology: Cell Biology	CER030	6	Biology: Cells	CER032	3
Biology: Cell Biology	CER030	6	Biology: Cellular Transport	YHS396	3
Biology: Cell Biology	CER030	6	Biology: Exploring Cellular Transport	YHS256	3
Biology: Cell Biology	CER030	6	Biology: The Cellular Factory	CER274	3
Biology: Cell Differentiation and Tissues	CER031	3	Biology: Fundamentals of Biological Systems	CER109	3
Biology: Cells	CER032	3	Biology: Exploring Cells	CER563	3
Biology: Cells	CER032	3	Biology: Fundamentals of Biological Systems	CER109	3
Biology: Cells	CER032	3	Biology: Genetics	YHS404	6
Biology: Cells	CER032	3	Biology: Genetics and Evolution	CER116	6
Biology: Cells	CER032	3	Biology: The Cellular Factory	CER274	3
Biology: Communicable Diseases	CER042	3	Biology: Infection and Immunity	CER146	6
Biology: Control and Co-ordination	CER059	6	Biology: Co-ordination	CER060	3
Biology: Control and Co-ordination	CER059	6	Biology: Human Musculoskeletal System	CER137	3
Biology: Control and Co-ordination	CER059	6	Biology: Nervous System	CER186	3
Biology: Co-ordination	CER060	3	Biology: Nervous System	CER186	3
Biology: Defence against Disease	CER071	3	Biology: Infection and Immunity	CER146	6

Barred Unit 1	ID 1	CV	Barred Unit 2	ID2	CV
Biology: Defence against Disease	CER071	3	Biology: Pathogens and Disease	CER198	9
Biology: Digestion and Nutrition	YHS322	3	Biology: Exploring Nutrition and Digestion	YHS402	3
Biology: DNA and Protein Synthesis	YHS252	3	Biology: Genetics	YHS404	6
Biology: Endocrine System	YHR994	3	Biology: Human Endocrine System	YHS321	3
Biology: Exploring Cells	CER563	3	Biology: Genetics	YHS404	6
Biology: Exploring Cellular Transport	YHS256	3	Biology: Cellular Transport	YHS396	3
Biology: Exploring Practical Biology Skills	CER566	3	Science: Exploring Laboratory Skills and Experimental Design	CER579	3
Biology: Fundamentals of Biological Systems	CER109	3	Biology: Exploring Cells	CER563	3
Biology: Genetic Inheritance	CER114	3	Biology: Genetics	YHS404	6
Biology: Genetic Inheritance	CER114	3	Biology: Genetics and Evolution	CER116	6
Biology: Genetics and Evolution	CER116	6	Biology: Genetics	YHS404	6
Biology: Human Cardiovascular System	CER133	3	Biology: Human Circulation and Gas Exchange	CER134	3
Biology: Human Circulation and Gas Exchange	CER134	3	Biology: Human Gas Exchange System	CER135	3
Biology: Human Circulation and Gas Exchange	CER134	3	Biology: Systems Physiology	CER270	6
Biology: Human Urinary System	AAA006	3	Biology: Urinary System	YHS320	3
Biology: Molecules of Life	CER184	6	Biology: Photosynthesis	CER481	3
Biology: Molecules of Life	CER184	6	Biology: Respiration in Cells	YHS411	3
Biology: Non-Infectious Disease	CER187	3	Biology: Pathogens and Disease	CER198	9
Biology: Nutrition and Digestion	AAA014	3	Biology: Digestion and Nutrition	YHS322	3
Biology: Nutrition and Digestion	AAA014	3	Biology: Exploring Nutrition and Digestion	YHS402	3
Biology: Nutrition and Digestion	AAA014	3	Biology: Systems Physiology	CER270	6
Biology: Practical Biology Skills	CER208	3	Biology: Exploring Practical Biology Skills	CER566	3
Biology: Practical Biology Skills	CER208	3	Science: Exploring Laboratory Skills and Experimental Design	CER579	3
Biology: Practical Biology Skills	CER208	3	Science: Practical Science Skills	CER210	3
Biology: The Cellular Factory	CER274	3	Biology: Cellular Transport	YHS396	3
Biology: The Cellular Factory	CER274	3	Biology: Exploring Cells	CER563	3

Barred Unit 1	ID 1	CV	Barred Unit 2	ID2	CV
Biology: The Cellular Factory	CER274	3	Biology: Exploring Cellular Transport	YHS256	3
Biology: The Cellular Factory	CER274	3	Biology: Genetics	YHS404	6
Chemistry: Analytical Chemistry	CER430	6	Chemistry: Organic Compound Analysis	CER478	3
Chemistry: Atoms, Bonds and Structure	CER318	3	Chemistry: Chemistry for Biologists	CER438	6
Chemistry: Atoms, Bonds and Structure	CER318	3	Chemistry: Exploring Atoms, Bonds and Structure	CER567	3
Chemistry: Chemistry and Society	CER326	3	Chemistry: Exploring Chemistry and Society	CER568	3
Chemistry: Chemistry for Biologists	CER438	6	Chemistry: Exploring Atoms, Bonds and Structure	CER567	3
Chemistry: Energy, Equilibria and pH	CER453	6	Chemistry: Enthalpy, Rates and Equilibria	CER456	3
Chemistry: Energy, Equilibria and pH	CER453	6	Chemistry: Kinetics, Energetics and Acid-Base Equilibria	CER466	3
Chemistry: Kinetics, Energetics, Equilibria & Acid-Base Equilibria	NEW	6	Chemistry: Energy, Equilibria and pH	CER453	6
Chemistry: Kinetics, Energetics, Equilibria & Acid-Base Equilibria	NEW	6	Chemistry: Enthalpy, Rates and Redox	CER457	6
Chemistry: Enthalpy, Rates and Equilibria	CER456	3	Chemistry: Enthalpy, Rates and Redox	CER457	6
Chemistry: Organic Concepts and Hydrocarbons	CER374	3	Chemistry: Organic Chemistry	YHS418	6
Computing: Digital Imaging and Video Production	CER335	6	Computing: Multimedia Products	CER370	9
Computing: Multimedia Authoring	CER369	6	Computing: Multimedia Products	CER370	9
Engineering: Aerospace Engineering	CER428	3	Engineering: Automotive and Aerospace Engineering	CER432	6
Engineering: Automotive and Aerospace Engineering	CER432	6	Engineering: Automotive Engineering	CER433	3
Engineering: Electronics	CER452	6	Engineering: Exploring Electronics	CER601	6
Environmental Science: Conservation Management	CER441	3	Environmental Science: Exploring Conservation Management	CER573	3
Mathematics: Algebra	CER429	6	Mathematics: Exploring Algebra and Functions	CER574	3
Mathematics: Calculus	CER324	3	Mathematics: Calculus and Pure Maths	CER325	6
Mathematics: Calculus	CER324	3	Mathematics: Exploring Calculus and Pure Maths	CER576	6
Mathematics: Calculus and Pure Maths	CER325	6	Mathematics: Algebra	CER429	6
Mathematics: Calculus and Pure Maths	CER325	6	Mathematics: Exploring Calculus and Pure Maths	CER576	6
Mathematics: Calculus and Pure Maths	CER325	6	Mathematics: Exponentials, Logarithms, Trigonometry and Series	CER343	3

Barred Unit 1	ID 1	CV	Barred Unit 2	ID2	CV
Mathematics: Continuous Probability Distributions	CER443	3	Mathematics: Further Statistics	CER461	6
Mathematics: Coplanar Forces and Moments	CER330	3	Mathematics: Mechanics	CER470	6
Mathematics: Data Handling	CER068	3	Psychology: Statistics for Psychology	CER263	3
Mathematics: Exponentials, Logarithms, Trigonometry and Series	CER343	3	Mathematics: Algebra	CER429	6
Mathematics: Exponentials, Logarithms, Trigonometry and Series	CER343	3	Mathematics: Exploring Calculus and Pure Maths	CER576	6
Mathematics: Further Differentiation	CER111	3	Mathematics: Further Calculus	CER459	6
Mathematics: Further Integration	CER112	3	Mathematics: Further Calculus	CER459	6
Mathematics: Further Mechanics	CER460	6	Mathematics: Exploring Momentum and Energy	CER577	3
Mathematics: Further Mechanics	CER460	6	Mathematics: Momentum and Energy	CER472	3
Mathematics: Further Mechanics	CER460	6	Mathematics: Variable Acceleration, Circular Motion and Simple Harmonic Motion	CER506	3
Mathematics: Kinematics	CER465	3	Mathematics: Mechanics	CER470	6
Mathematics: Mathematics for Nursing and Midwifery	CER468	6	Mathematics: Exploring Number and Graphical Representation	CER476	3
Mathematics: Momentum and Energy	CER472	3	Mathematics: Exploring Momentum and Energy	CER577	3
Mathematics: Numerical Analysis of Statistical Data	CER189	3	Psychology: Statistics	CER262	6
Mathematics: Numerical Analysis of Statistical Data	CER189	3	Psychology: Statistics for Psychology	CER263	3
Physics: Electric Circuits	CER448	3	Physics: Electricity, Induction and Electromagnetism	CER450	9
Physics: Electricity and Electromagnetism	CER338	6	Physics: Electric Circuits	CER448	3
Physics: Electricity and Electromagnetism	CER338	6	Physics: Electricity, Induction and Electromagnetism	CER450	9
Physics: Electricity and Electromagnetism	CER338	6	Physics: Electromagnetism	YHS238	3
Physics: Electricity, Induction and Electromagnetism	CER450	9	Physics: Electromagnetism	YHS238	3
Physics: Energy Transfer and Fluid Mechanics	CER455	3	Physics: Thermodynamics and Fluid Mechanics	CER498	6
Physics: Newtonian and Rotational Dynamics	CER473	6	Physics: Newtonian Dynamics	CER474	3
Physics: Newtonian and Rotational Dynamics	CER473	6	Physics: Rotational Dynamics	CER491	3
Physics: Particle Physics	CER479	3	Physics: Exploring Particle Physics	CER571	3
Physics: Particle Physics	CER479	3	Physics: Particle Physics and Nuclear Power	CER480	6
Physics: Particle Physics and Nuclear Power	CER480	6	Physics: Exploring Particle Physics	CER571	3
Physics: Thermodynamics	CER418	3	Physics: Thermodynamics and Fluid Mechanics	CER498	6

Barred Unit 1	ID 1	CV	Barred Unit 2	ID2	CV
Physics: Waves and Optics	CER304	3	Physics: Exploring Waves and Optics	CER572	3
Psychology: Defining Abnormality and Understanding Psychological Disorders	CER224	6	Psychology: Psychological Disorders and Therapeutic Strategies	CER391	3
Psychology: Developmental Psychology	CER076	6	Psychology: Child Development	YHS241	3
Psychology: Developmental Psychology	CER076	6	Psychology: Child Development Early Socialisation	YHS242	3
Psychology: Social Interaction	CER400	3	Psychology: Exploring Social Interaction	CER595	3
Psychology: Statistics for Psychology	CER263	3	Mathematics: Continuous Probability Distributions	CER443	3
Psychology: Statistics for Psychology	CER263	3	Mathematics: Exploring Numerical Analysis of Statistical Data	CER614	3
Psychology: Statistics for Psychology	CER263	3	Mathematics: Further Statistics	CER461	6
Science: Practical Science Skills	CER210	3	Biology: Exploring Practical Biology Skills	CER566	3
Study Skills: Advanced Information Technology	CER007	6	Study Skills: Spreadsheet Software	CER261	3
Study Skills: Advanced Information Technology	CER007	6	Study Skills: Use of Information and Communication Technology	CER293	3
Study Skills: Communication Skills	CER045	6	Study Skills: Communications	CER046	3
Study Skills: Group Processes	CER118	3	Study Skills: Interview Skills and Group Presentations	CER150	3
Study Skills: Higher Education Toolkit	CER132	6	Study Skills: Interview Skills and Group Presentations	CER150	3

DIPLOMA UNITS AVAILABLE ON PEARL (all units are Level 3 and are mandatory)

Please select one of the following pathways:

Biophysical Science pathway

Ungraded Units	User ID	Credit Value
Biology: Exploring Cellular Structure and Activity	YHS558	6
Study Skills: Writing and Studying Academic Texts	YHS561	3
Study Skills: Planning and Writing an Assignment	YHS560	3
Mathematics: Exploring Trigonometric Functions, Ratios and Rules	YHS677	3
Graded Units	User ID	Credit Value
Physics: The Properties, Principles and Applications of the Electromagnetic Spectrum	YHS686	3
Biology: Cell Division and Genetic Variation	YHS550	3
Physics: Characteristics of Radioactivity	YHS682	3
Biology: Introduction to Human Reproduction	YHS580	3
Physics: The Physics of Medical Imaging	YHS685	3
Biology: The Role of Human Nervous System and Endocrine System in Homeostasis	YHS584	3
Physics: The Major Laws of Physics	YHS684	6
Biology: Immunity and Disease Defence	YHS662	3
Biology: Health and Disease	YHS660	3
Physics: Human Experience of Optics and Sound	YHS683	3
Biology: Interaction of the Human Muscular and Skeletal Systems	YHS578	3
Biology: Human Digestive System and Dietary Needs	YHS661	3
Physics: Principles of Mechanical Engineering	YHS785	6

Biochemical Science pathway

Ungraded Units	User ID	Credit Value
Biology: Exploring Cellular Structure and Activity	YHS558	6
Study Skills: Writing and Studying Academic Texts	YHS561	3
Study Skills: Planning and Writing an Assignment	YHS560	3
Mathematics: Exploring Trigonometric Functions, Ratios and Rules	YHS677	3
Graded Units	User ID	Credit Value
Biology: Cell Division and Genetic Variation	YHS550	3
Biology: Introduction to Human Reproduction	YHS580	3
Biology: The Role of Human Nervous System and Endocrine System in Homeostasis	YHS584	3
Biology: Immunity and Disease Defence	YHS662	3
Biology: Health and Disease	YHS660	3
Biology: Interaction of the Human Muscular and Skeletal Systems	YHS578	3
Biology: Human Digestive System and Dietary Needs	YHS661	3
Chemistry: The Structure of the Atom	YHS687	3
Chemistry: Arrangement and Trends in the Periodic Table	YHS552	3
Chemistry: Atomic Structure, Electronic Structures and Bonds	YHS553	3
Chemistry: The Structure and Bonding of Molecules	YHS556	3
Chemistry: Hydrocarbons, Alkanes and Alkenes	YHS554	3
Chemistry: Molarity and Chemical Change	YHS555	3
Biology: Cellular and Subcellular Metabolism	YHS551	3
Mathematics: Calculus For Scientists	YHS676	3

Medicine and Health Science pathway

Ungraded Units	User ID	Credit Value
Biology: Exploring Cellular Structure and Activity	YHS558	6
Study Skills: Writing and Studying Academic Texts	YHS561	3
Study Skills: Planning and Writing an Assignment	YHS560	3
Mathematics: Exploring Trigonometric Functions, Ratios and Rules	YHS677	3
Graded Units	User ID	Credit Value
Biology: Cell Division and Genetic Variation	YHS550	3
Biology: The Role of Human Nervous System and Endocrine System in Homeostasis	YHS584	3
Biology: Immunity and Disease Defence	YHS662	3
Biology: Interaction of the Human Muscular and Skeletal Systems	YHS578	3
Chemistry: The Structure of the Atom	YHS687	3
Chemistry: Atomic Structure, Electronic Structures and Bonds	YHS553	3
Physics: The Physics of Medical Imaging	YHS685	3
Chemistry: Hydrocarbons, Alkanes and Alkenes	YHS554	3
Physics: The Major Laws of Physics	YHS684	6
Chemistry: Molarity and Chemical Change	YHS555	3
Physics: Human Experience of Optics and Sound	YHS683	3
Biology: Cellular and Subcellular Metabolism	YHS551	3
Chemistry: Arrangement and Trends in the Periodic Table	YHS552	3
Physics: The Properties, Principles and Applications of the Electromagnetic Spectrum	YHS686	3