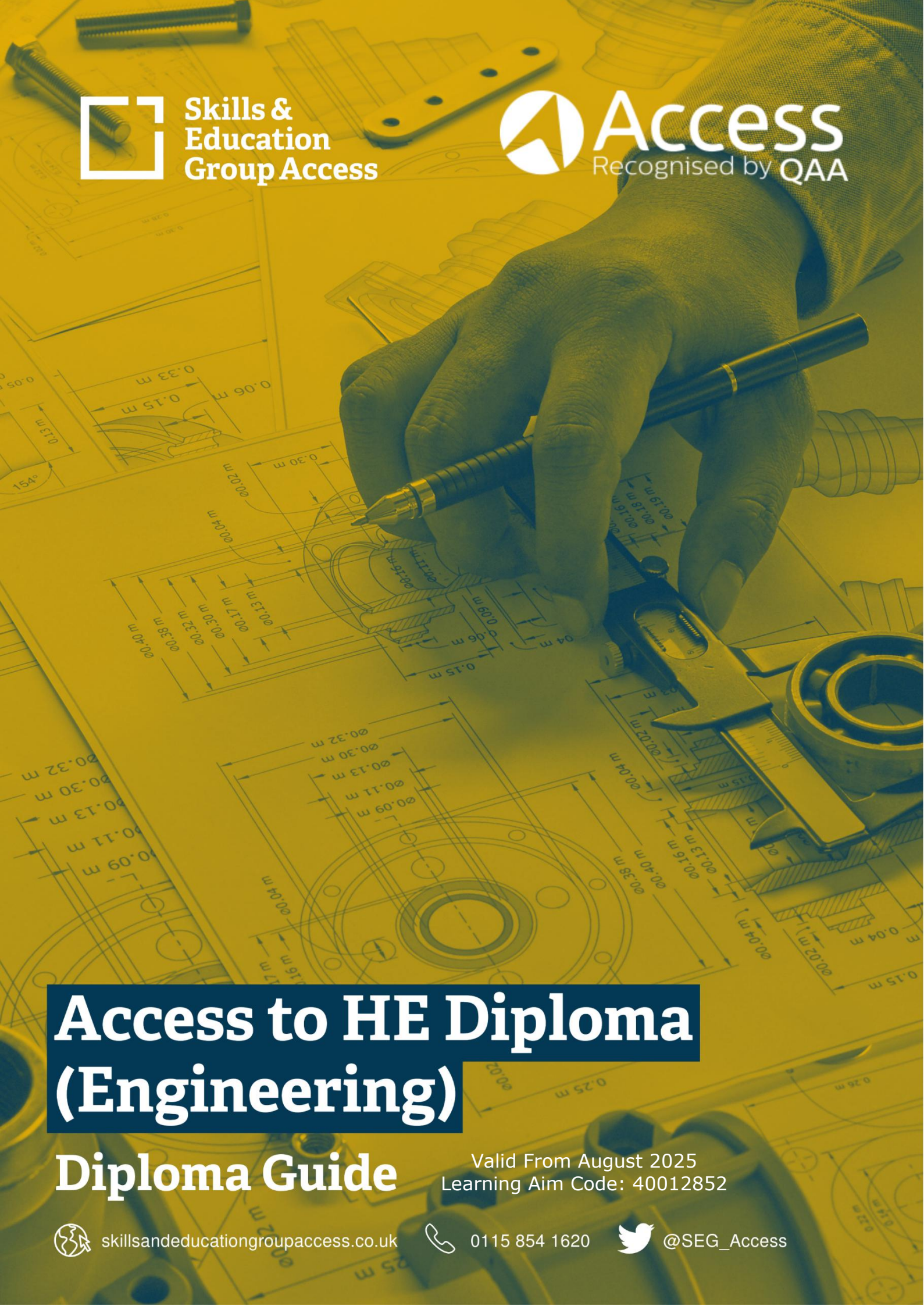
Skills & Education Group Access

Access
Recognised by QAA



Access to HE Diploma (Engineering)

Diploma Guide

Valid From August 2025
Learning Aim Code: 40012852

skillsandeducationgroupaccess.co.uk
0115 854 1620
@SEG_Access

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Access to 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 (Engineering). 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).

LC 50a: 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.

LC 50c: 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
(Engineering)	4 - Engineering and Manufacturing Technologies	4.1 - Engineering

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

The Access to HE Diploma (Engineering) provides students with a comprehensive understanding of engineering principles, mathematics, and scientific concepts. This course prepares students for Higher Education and careers in various engineering fields, such as mechanical, electrical, aerospace, and automotive engineering. Students will acquire essential knowledge, specific skills, and transferable skills necessary for success in these areas.

A. Key Knowledge:

1. Fundamental Engineering Concepts:

- Understanding of AC theory, electronics, and solid mechanics.
- Knowledge of electricity, electromagnetism, electric circuits, and electric motors.
- Insights into thermodynamics, fluid mechanics, and heat transfer.

2. Mathematics for Engineering:

- Proficiency in algebra, pure maths, calculus, and further calculus.
- Understanding of mechanics, further mechanics, and engineering calculus.
- Knowledge of algebraic and trigonometric techniques applied to engineering.

3. Physics and Chemistry:

- Exploration of Newtonian and rotational dynamics, waves and optics, and energy and motion in mechanical science.
- Understanding the principles of mechanical engineering, arrangement and trends in the periodic table, and hydrocarbons.
- Understanding the structure of the atom, molarity, and chemical change.

4. Specialised Engineering Fields:

- Knowledge of aerospace engineering and automotive engineering.
- Understanding of control systems, emerging technologies, and materials engineering.
- Understanding engineering design, including CAD (Computer-Aided Design).

B. Subject-Specific Skills:

1. Technical and Analytical Skills:

- Skills in designing and conducting engineering projects.
- Competence in using CAD software for engineering design.
- Proficiency in analysing and applying mathematical principles to engineering problems.

2. Practical Engineering Skills:

- Ability to work with electric circuits, electromagnetism, and control systems.
- Skills in thermodynamics, fluid mechanics, and heat transfer applications.
- Developing competency in materials engineering and understanding the properties and uses of different materials.

3. Specialised Engineering Applications:

- Skills in aerospace and automotive engineering practices.
- Understanding of electronics and its applications in engineering.
- Proficiency in the principles and practices of mechanical engineering.

C. Transferable Skills:

1. Academic and Research Skills:

- Enhanced academic writing, research skills, and information literacy.
- Development of reading, note-making, and planning and writing assignments.
- Experience in conducting design projects and understanding opportunities in Higher Education.

2. Communication and Organisational Skills:

- Improved communication skills for presenting engineering concepts and designs.
- Skills in using algebra and mathematical principles in problem-solving.
- Development of numeracy skills and their application in engineering contexts.

3. Professional and Ethical Skills:

- Understanding of safe and ethical use of generative artificial intelligence.
- Awareness of professional practices and ethical considerations in engineering.
- Skills applying engineering principles in real-world scenarios.

Intended Progression Routes

LC 61a and 61b: 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 (Engineering), subject to the course entry requirements and application process.

- Aerospace/ Aeronautical Engineering
- Architectural Engineering
- Automotive Engineering
- Chemical Engineering
- Civil Engineering
- Electrical Engineering
- Electromechanical Engineering
- Electronics
- Materials Engineering
- Mechanical Engineering

- Mechanical Engineering and Composites
- Mechatronics
- Petroleum Engineering
- Structural Engineering
- Sustainable and Energy Engineering.

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).

LC 50g: 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 (Engineering)	
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 (Engineering)

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**

ADDITIONAL IMPORTANT INFORMATION:
Providers must take extra care with their unit selection from those listed below. Providers should be mindful that most, if not all, receiving Higher Education Institutions (HEIs), expect students to have taken units which have a specific mathematical and engineering focus. As always, providers **must** ensure that students check with their HEIs of choice that the units taken in the Diploma will provide them with the opportunity to be considered for progression to their intended HE destination.

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
Emerging Technologies	CJ1/3/AA/01G	Three	3
Pure Maths	RB1/3/AA/03G	Three	3
Algebra and Functions	RB3/3/AA/01G	Three	3
Trigonometric Functions, Ratios and Rules	RB4/3/AA/02G	Three	3
Calculus	RB5/3/AA/01G	Three	3
Waves and Optics	RC1/3/AA/04G	Three	3
Electric Circuits	RC5/3/AA/01G	Three	3
Electromagnetism	RC5/3/AA/04G	Three	3
Arrangement and Trends in the Periodic Table	RD1/3/AA/11G	Three	3
Molarity and Chemical Change	RD1/3/AA/12G	Three	3
Hydrocarbons, Alkenes and Alkanes	RD4/3/AA/05G	Three	3
Engineering Design - CAD	VF3/3/AA/01G	Three	3
Materials Engineering	XA1/3/AA/01G	Three	3
Control Systems	XA1/3/AA/02G	Three	3
Electric Motors	XJ4/3/AA/01G	Three	3
Aerospace Engineering	XP1/3/AA/01G	Three	3
Automotive Engineering	XR1/3/AA/01G	Three	3

Unit Title	National Code	Level	CV
Algebra	RB3/3/AA/02G	Three	6
Engineering Calculus	RB5/3/AA/03G	Three	6
Further Calculus	RB5/3/AA/04G	Three	6
Algebraic and Trigonometric Techniques in Engineering	RB9/3/AA/01G	Three	6
Mathematical Principles Applied to Engineering	RB9/3/AA/02G	Three	6
Newtonian and Rotational Dynamics	RC1/3/AA/05G	Three	6
Solid Mechanics	RC2/3/AA/01G	Three	6
Further Mechanics	RC2/3/AA/02G	Three	6
Mechanics	RC2/3/AA/03G	Three	6
Thermodynamics and Fluid Mechanics	RC4/3/AA/02G	Three	6
Electricity and Electromagnetism	RC5/3/AA/02G	Three	6
Heat Transfer and Chemical Reactors	XA1/3/AA/03G	Three	6
Energy and Motion in Mechanical Science	XA1/3/AA/04G	Three	6
Principles of Mechanical Engineering	XH1/3/AA/01G	Three	6
Electronics	XL1/3/AA/02G	Three	6
AC Theory	XL1/3/AA/01G	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
Presentation Skills	HC7/3/AA/18U	Three	3
Numeracy	HD4/3/AA/01U	Three	3
Algebra and Functions	RB3/3/AA/01U	Three	3
Using Algebra	RB3/3/AA/02U	Three	3
The Structure of the Atom	RD3/3/AA/02U	Three	3
Conducting a Design Project	VF3/3/AA/01U	Three	3
Materials Engineering	XA1/3/AA/01U	Three	3
Aerospace Engineering	XP1/3/AA/01U	Three	3
Automotive Engineering	XR1/3/AA/01U	Three	3
Higher Education Toolkit	HC7/3/AA/19U	Three	6
Electronics	XL1/3/AA/01U	Three	6

Inclusion and Exclusion Rules of Combination

Barred Unit 1	ID 1	CV	Barred Unit 2	ID2	CV
Materials Engineering	XA1/3/AA/01G	3	Materials Engineering	XA1/3/AA/01U	3
Higher Education Toolkit	HC7/3/AA/19U	6	Presentation Skills	HC7/3/AA/18U	3
Electricity and Electromagnetism	RC5/3/AA/02G	6	Electric Circuits	RC5/3/AA/01G	3

Barred Unit 1	ID 1	CV	Barred Unit 2	ID2	CV
Electricity and Electromagnetism	RC5/3/AA/02G	6	Electromagnetism	RC5/3/AA/04G	3
Aerospace Engineering	XP1/3/AA/01G	3	Aerospace Engineering	XP1/3/AA/01U	3
Automotive Engineering	XR1/3/AA/01G	3	Automotive Engineering	XR1/3/AA/01U	3
Electronics	XL1/3/AA/02G	6	Electronics	XL1/3/AA/01U	6
Algebra and Functions	RB3/3/AA/01G	3	Algebra and Functions	RB3/3/AA/01U	3