

Course Title:	Engineering (Level 2)
Title of qualification to be gained (if any):	First Certificate & Diploma in Engineering
Awarding Body (if any):	EAL(Excellence Achievement Learning)
Essential materials: Personal Protective equipment (£50 - £100) -the UTC has stock to purchase. Course Book	

Course Aims
The course is geared to provide students with a substantial grounding in all aspects of mechanical/electronic engineering. This qualification has industry standard approval and is supported at EAL with qualified specialists. It fits well with progression towards level 3 and/or apprenticeship.
Course Description
The qualification consists of mandatory units and optional units; the size of the qualification determines the mix of these units. Three units are required for the certificate, six for the diploma.
Entry Requirements (Sixth Form Students only)
Students require a minimum of 3 A*-C GCSE grades or equivalent to be accepted on this course.
Who is the course for?
Engineering is at the heart of HAE UTC and is therefore compulsory.
Main topics covered
Engineering techniques-the basic tools, techniques and materials Engineering environment awareness –how engineering is organised safely Engineering principles –structures and how they are assembled Fitting and assembly techniques-hand skills , assembly and maintenance activities Turning and milling techniques and technology-use of key machine tools Fabrication and welding principles- at least three thermal joining processes Electrical and electronic testing methods-manufacture of circuits and circuit boards Electrical and electronic systems and devices –testing circuits, boards and systems
Learning Outcomes
By the end of the course learners will be able to:
Use tools, engineering techniques and a variety of equipment and machinery whilst working with high grade engineering materials to manufacture high quality products and components-often in an aviation engineering context.
The key part of the learning takes place via hands on practical sessions in nearly all lessons. In addition, discussion, group work and written activities are used alongside the use of the technology for drawing, designing and modelling. Students will have a fully rounded engineering experience.
Students will have regular visits to and from our sponsor organisations.

Students will have the opportunity to organise themselves into teams to tackle real life engineering problems associated with the aviation industry. They will be a part of projects from our sponsors.

How your work will be assessed

Besides ongoing assessments of the learning, students are formally assessed at the end of the first year of the course with an online exam and an individual project. Both of these (assessments) cover all the learning that has taken place in the year; students will receive the level 2 certificate. At the end of the second year further project assessment takes place for students to receive the full Diploma.

Suggested progression routes

The course has a natural progression into the level 3 Diploma in Engineering or an apprenticeship with either one of our sponsors or other local or national engineering organisations

Pre-course reading/preparation

Participation in design and technology and/or engineering related activities and general reading about engineering related topics.