Leicester College

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Level 2 Diploma in Aerospace Aviation

Course Overview

If you are interested in aircraft, aviation and engineering, this course provides an excellent introduction to the knowledge and skills used within the aerospace and aviation industries.

 The BTEC Level 2 Diploma in Aerospace and Aviation Engineering (Foundation Knowledge) is designed for students who want to develop a broad understanding of aeronautical engineering while gaining practical and technical engineering skills. You will explore how aircraft are designed, constructed and operated, studying areas including aircraft materials and structures, aerodynamics, engineering science and aircraft electrical and mechanical systems.

 You will study within Leicester College's specialist Engineering facilities and have opportunities to apply your learning through practical activities, engineering software and specialist aeronautical equipment.

 Alongside developing your technical knowledge, the course will help you build important skills such as problem-solving, teamwork, communication and safe working practices.

 This programme provides a strong foundation for students who want to progress to more advanced study in aeronautical or aerospace engineering, including our Level 3 Aeronautical Engineering programme.

What you will learn

The course combines aerospace-specific subjects with the wider engineering knowledge and skills required to progress within the sector.

 You will study seven units covering:

 Aircraft Materials and Airframe Construction – explore the materials, structures and construction methods used within aircraft.
 Human Factors and Performance in Aviation – understand how human performance and behaviour can affect safety and effectiveness within aviation.
 Principles of Aerodynamics and the Theory of Flight – investigate the principles that allow aircraft to generate lift and achieve controlled flight.
 Mathematics and Science for Engineering – develop the mathematical and scientific knowledge required to solve engineering problems.
 Improvement Techniques for Business – understand how engineering organisations improve quality, efficiency and working practices.
 Principles of Aircraft Electrical and Mechanical Systems Assembly and Fitting – develop knowledge and practical understanding of aircraft systems, components and engineering processes.
 Computer Aided Design (CAD) Principles and Applications – develop skills in using industry-relevant CAD techniques to produce engineering drawings and designs.

 Practical activities will allow you to apply the theory you learn and develop confidence using engineering tools, equipment and processes.

Entry Requirements

A minimum of grade 4 in either GCSE English or GCSE mathematics, with at least a grade 3 in the other subject. For example, English grade 4 and mathematics grade 3, or mathematics grade 4 and English grade 3. As the programme includes mathematical, scientific and technical content, students should be prepared to continue developing their English and mathematics skills alongside their engineering studies.

 Applicants progressing from another Leicester College programmes will also be considered based on their previous qualification, attendance, engagement and suitability for the course.

Course Fees

You are expected to obtain personal protective equipment (PPE) to be worn during all practical sessions. During the Induction period, you will be allocated a locker to store your PPE. Basic requirements are steel toe cap safety boots, and plain navy or black overalls (boiler suit style only). You can purchase your PPE from wherever you wish, however during enrolment you will be given details of some local companies who supply many of our students. The cost of the required PPE would be expected to cost between £30 and £45.

 You will require some basic stationery (pens, pencils, ruler, ring binder, page dividers). You will be given a course equipment list during enrolment, detailing specifics.

Course Progession

Successful completion of the course can provide a strong route into further study within Engineering.

 Students who achieve the required standard may progress to the BTEC Level 3 National Diploma in Aeronautical Engineering at Leicester College, providing a clear pathway towards advanced technical study.

 Longer-term progression could include higher education, apprenticeships or employment within aerospace, aviation and the wider engineering sector. Career areas may include aircraft maintenance and engineering, aerospace manufacturing, design, mechanical and electrical systems, CAD and engineering support roles.

What Happens Next

Apply online via the College website, or if your school uses the Positive Steps @16 (PS16) application system please apply through this and speak to your careers advisor if you are unsure. You will need details of your qualifications, a reference, and a personal statement to complete your application. Once your application has been successfully processed, you will be sent a conditional offer and be invited to a Welcome Event/Interview at the College to meet your tutors, learn more about your chosen course of study and tour the facilities. You will then need to confirm your acceptance of the course offered to you.

Course Details

Course Code P01044

Start Date 22/09/2026

Study Hours Full Time

Duration 1 year

Campus Abbey Park Campus

Level 2

Apply Here