

### BTEC Certificate in Aerospace Engineering Level 3



#### In a nutshell

During this course you'll develop the foundation knowledge and specific skills required to meet the needs of the modern mechanical/aeronautical engineering industries.

#### This course is for you if...

- ... You want a career in aeronautical engineering
- ... You're hard working
- ... You've a keen interest in engineering

#### What will I be doing?

Whether you want to help usher in a new age of unmanned aircraft, develop the world's most efficient passenger jets, or make future space missions a reality, the career options in the UK's rapidly evolving aerospace sector are unlike any other.

## COURSE INFORMATION LEAFLET

This course has been developed in collaboration with the University of South Wales and you'll have the opportunity to take part in practical workshops at the Aerospace Centre in Treforest.

In Year 1, you'll study:

Subsidiary Diploma in Engineering (60 Credits)

Health and safety in the engineering workplace (10 credits)  
Mechanical principles and applications (10 credits)  
Mathematics for engineering technicians (10 credits)  
Applications of mechanical systems in engineering (10 credits)  
Theory of flight (10 credits)  
Aircraft maintenance practices (10 credits)

Plus 30 additional credits:

Aircraft materials and hardware (15 credits)  
Aircraft workshop principles and practice (15 credits)

In Year 2, you'll study:

Extended Diploma in Aeronautical Engineering (180 Credits)

Engineering project (20 credits)  
Principles and applications of aircraft mechanical science (10 credits)  
Aircraft electrical systems (10 credits)  
Avionic systems (10 credits)  
Aircraft propulsion systems (10 credits)  
Communications for an engineering technician (10 credits)  
Principles and applications of aircraft physical science (10 credits)  
Aircraft computers and electronic systems (10 credits)

You'll be assessed through exams, coursework, portfolio and practical assessment. Upon successful completion, you'll achieve:

Level 3 Subsidiary Diploma in Engineering (Year 1)  
Level 3 Extended Diploma in Aeronautical Engineering (Year 2)

[Skills Activities](#)

[Maths and English](#) (you'll attend classes if you didn't achieve a Grade C or above in these

## COURSE INFORMATION LEAFLET

subjects)

Other relevant qualifications to enhance your skill set

### What is expected of me?

To enrol on this course, you'll need a minimum of 5 GCSEs at Grade C or above, including Mathematics at Grade B and preferably a Science at Grade B.

You need to have a keen interest in engineering, as well as the enthusiasm and drive to develop your practical and analytical skills. Full commitment to attendance is required, as is respect for others, enthusiasm for the subject and self-motivation. There is an expectation that you'll continue your studies and coursework during your own time.

### What comes next?

Study Aeronautical Maintenance or Engineering at university  
Higher Apprenticeship  
Employment

[Find out more about what you can do next in this exciting field of engineering.](#)

### Additional information

You'll need to purchase PPE (Personal Protective Equipment) at a cost of approximately £40.00.