

Engineering Advanced Pre-Apprenticeship

It is well reported that there is currently a shortage of engineers with practical skills within engineering and manufacturing. This course will give you the advanced skills to progress into a range of different engineering disciplines.

Engineering Technicians in the Aerospace, Aviation, Automotive, Maritime Defence and wider Advanced Manufacturing and Engineering Sector are predominantly involved in highly skilled, complex work and must, as a minimum be able to:

- Apply safe systems of working
- Make a technical contribution to either the design, development, quality assurance, manufacture, installation, commissioning, decommissioning, operation or maintenance of products, equipment, systems, processes or services
- Apply proven techniques and procedures to solve engineering/manufacturing problems
- Demonstrate effective interpersonal skills in communicating both technical and non-technical information
- Have a commitment to continued professional development



Engineering Technicians take responsibility for the quality and accuracy of the work they undertake within the limits of their personal authority. They also need to be able to demonstrate a core set of behaviours in order to be competent in their job role, complement wider business strategy and development. This will enable them to support their long-term career development.

In 2016 there were 6,040 Advanced Manufacturing and Engineering enterprises operating in the New Anglia area, which is 10% of all enterprises.

The manufacturing sector is increasingly high tech and across many industries advanced manufacturing principles are now being applied, including in:

- Automotive, trailers and vehicles
- Boatbuilding
- Aerospace
- Bio-economy
- Robotics, automation, ICT equipment
- Health equipment
- Chemicals
- Construction
- Energy, oil and gas
- Offshore and marine
- Agrifood automation

The New Anglia’s LEP sector skills plan predicts that a net requirement for new staff in the sector at 37,000 over the decade from 2014-2024, so the demand for a skilled workforce is high.

By completing this course, you will gain a formal Engineering qualification that is recognised by industry providing you with a pathway to an apprenticeship with one of the many local employers West Suffolk College works with. The course is open to both those progressing from GCSEs and those looking to change or further their careers.

You will learn how to work effectively and practice advanced engineering skills. In addition to the practical skills you will develop, you will also improve your employability through the enhancement of your communication, numeracy and information technology abilities.

Course Content

Engineering Environment	Maths and Science
Additive Manufacturing (3D Printing)	CNC
Electrical and Electronic Principles	Work experience, employability and careers; participation in employer led projects
Engineering Techniques	Essential skills including problem solving, working with others and ICT

Duration and Attendance - 1 Year, starting September

Entry Requirements - Grade 3 (D) in English and Grade 3 (D) mathematics

Further Study - Subject to successful interview and completion of this course, you may progress to further levels of study within engineering in the college, apprenticeship or employment.

Career Opportunities - Completion of this course of study and further courses can provide a stepping stone and lead to modern apprenticeships or employment as a trainee in a wide range of engineering and technology enabled sectors.

Typical job titles - Engineering Technician, Aerospace Technician, Aviation Engineer, Maritime Engineering, Machinist, Mechatronics Engineer and Toolmaker.

Application Process - You will be invited to discuss your application with us an aptitude test and interview will form part of the selection process.