

Course Level: Level 3

Campus: Leek

Subject Type: Construction & Engineering

Course Overview:

Explore the intricate relationship between design, manufacturing, and engineering, and discover how innovative ideas are transformed into tangible products. This course unveils the complete journey from initial concept to final production, governed by the principles of process and control that ensure quality and efficiency every step of the way.

What's Covered:

Students will develop an understanding of a broad range of issues relevant to the sector, including:

- Working within the Engineering and Manufacturing Sectors
 - an understanding of how materials, conditions, and context influence design processes and products.
- Essential mathematics for engineering and manufacturing
 - a knowledge and understanding of mathematics including standard matrices and determinants and standard trigonometry.
- Materials and their properties
 - understanding material processing techniques and their effects on materials and material quality, the condition of materials, how these are managed, and materials testing methods and techniques.
- Business, commercial and financial awareness
 - basic commercial principles including commercial priorities and markets, customers/clients/partners, and resource allocation.

Entry Requirements:

As a condition of being offered a place on this course, you would be expected to meet the following entry requirements:

- Submit a school report showing your attendance, behaviour and effort details
- Attend the Department Experience Day
- Complete a summer assignment which would be set on Experience Day
- You will need to achieve/have achieved 5 GCSEs at grade 5 or above including Maths and English Language

Assessment Information:

You will be assessed through a combination of exams, coursework, work based observations, an employer project and an end point assessment.

Fees and Financial Support:

This course is free for anyone aged 16 – 18.

College Maintenance Allowance (CMA):

Anyone with a gross household income under £35,000 can receive financial support to cover college related costs such as transport, meals, course equipment and uniform. Bursary support is based on individual circumstances and will be allocated to best suit your individual needs. A range of other financial support is available depending on your personal circumstances. For more details

visit_nscg.ac.uk/finance

Progression:

After completing the course, students will be prepared for a variety of career opportunities in the engineering and manufacturing sectors, such as:

- Aerospace engineering technician
- Electrical engineering technician
- Boat builder
- Engineering construction craft worker
- Mechanical engineering technician
- Non-destructive testing technician
- Materials technician
- Blacksmith
- Welder

How do I find out more?

For further information, please email: info.leek@nscg.ac.uk