Working together to transform lives

Enquiries
Email: hello@bradfordcollege.ac.uk
Telephone: 01274 088 088

T Level in Engineering: Design & Development & Mechanical Specialism



Subject Area	Engineering
Course Type	School Leavers
Study Level	Level 3
Delivery Mode	Full-time
Duration	2 Academic Years
Start Date	September 2027
Course Code	PA000093

View on **bradfordcollege.ac.uk**

Course Summary

Are you ready to turn ideas into reality?
This T Level is your gateway to the world of engineering and product development. Designed with leading employers, this course blends classroom learning with real-world experience, giving you the skills to design, test, and create innovative products. You'll explore engineering principles, design techniques, and manufacturing processes, understanding how products go from concept to production. With hands-on projects and industry placements, you'll be prepared for a future in engineering, whether that's a job, an apprenticeship, or further study.
Why choose a T Level?

- Industry-Focused – Developed with top engineering companies, this course teaches the skills that employers want.
- Hands-On Experience – Gain valuable practical skills with industry placements, working on real engineering projects.
- Outstanding Facilities – Use industry-standard software, 3D printers, and advanced manufacturing tools to bring your designs to life.

- Key Engineering Skills – Study topics like CAD (Computer-Aided Design), prototyping, and materials science.

Is this course for me?

- Do you enjoy problem-solving and creating new ideas?
- Are you interested in how products are designed, tested, and manufactured?
- Are you considering a career in engineering, manufacturing, or product development?

In your second year you will be able to choose between electrical or manufacturing as your specialism.

Shape the world around you with this engineering course—apply today and kickstart your future.

What You Will Learn

Skills you'll develop:

- Engineering & Manufacturing Foundations – Understand the fundamental concepts and roles within the engineering and manufacturing sectors.
- Core Engineering Principles – Demonstrate knowledge of engineering principles and materials used in design and development.
- Computer-Aided Design (CAD) & Prototyping – Develop skills in digital design and hands-on model creation to solve real-world problems.
- Manufacturing & Quality Control – Explore different production processes and how to ensure high-quality outcomes.
- Project Management & Teamwork – Build leadership, planning, and collaboration skills essential for engineering success.
- Hands-On Engineering Project – Put everything into practice by designing, testing, and producing a final product.

Modules

Core Modules:

- Commercial awareness
- Engineering and design practices
- Engineering drawings and graphical language
- Materials and their properties

- Mathematics for engineering and manufacturing
- Maintenance, installation and repair practices
- Science for engineering and manufacturing
- Choose your specialism in either electrical or manufacturing in your second year

Entry Requirements

5 GCSEs grade 4-9, including Maths and English Language at a grade 5 or above.

Work Experience

From classroom to workshop, gain work experience that matters!

T Level students must complete a 45-day industry placement, where you'll dive into the world of work and gain the skills employers are looking for. You will:

- Get hands-on and work on real projects.
- Boost your confidence and learn how to plan tasks, meet deadlines, and make smart decisions.
- Collaborate with professionals and see how great ideas come to life when people work together.
- Understand how to maintain a safe and productive work environment.
- Be part of a workplace that values diversity and promotes equality.

With this industry placement, you'll have hands-on experience to showcase on your CV, demonstrating your industry skills to employers.

Progression

After completing this T Level, you'll be ready to pursue:

- Higher Apprenticeships in Product Design & Development, Manufacturing Engineering, or Mechanical Engineering.
- University Degrees in Engineering Design, Manufacturing & Production, or Industrial Design.
- Roles such as CAD Technician, Product Design Engineer, or Manufacturing Technician.

Disclaimer: Our prospectus, college documents and website are simply here to offer a guide. We accept no liability for any inaccurate statements and are not responsible for any negative outcomes if you rely on an inaccurate statement.

We reserve the right to withdraw any programmes or service at any time.