Working together to transform lives

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HNC in Manufacturing Engineering (HTQ)

Subject Area	Engineering
Course Type	Higher Education
Study Level	Level 4
Delivery Mode	Full-time
Duration	1 Academic Year
Start Date	September 2026
Course Code	PFHN064

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This course is approved by

Course Summary

The HNC in Manufacturing Engineering provides a solid grounding in the principles and practices used across the manufacturing sector. The course is designed for learners who want to develop their technical skills, understand modern engineering processes, and progress into higher study or industry roles.
Throughout the programme, students build their confidence in design, problem‑solving, digital engineering tools and production techniques. The course also introduces the latest developments in advanced manufacturing, preparing learners for the evolving demands of the engineering workplace.

What You Will Learn

You will have sound knowledge of the basic concepts of manufacturing engineering and be competent in a range of subject-specific skills as well as in general skills and qualities

relevant to these key areas of engineering.

The course will equip you with the skills, knowledge and understanding you need to achieve high performance in the engineering and manufacturing environment. This involves developing your abilities and confidence to work across different engineering functions and to lead, manage, respond to change and tackle a range of complex engineering situations.

Modules

Learners will study a range of units that reflect current industry practice:

- Engineering Design – An introduction to the engineering design process, including drawings, requirements and specifications.
- Engineering Maths – Mathematical methods used to support engineering activities and technical decision□making.
- Managing a Professional Engineering Project (Pearson□set) – Planning, delivering and evaluating a substantial project that reflects real engineering practice.
- Production Engineering for Manufacture – Manufacturing methods, materials, tools and production systems.
- Quality and Process Improvement – Approaches to quality assurance, process control and continuous improvement.
- Computer Aided Design and Manufacture (CAD/CAM) – Skills in using CAD software and understanding its links to manufacturing processes.
- Industry 4.0 – An introduction to digital and “smart” technologies shaping modern industry.
- Industrial Robots – Robotics principles, programming and applications within automated environments.

Entry Requirements

Applicants should meet one of the following:
Level 3 Qualification in Engineering, plusMinimum 80 UCAS pointsGCSE Maths Grade 4GCSE English Grade 3
or
A minimum of 80 UCAS points, including at least one Level 3 qualification in Maths, Physics or Computer Science, plus:GCSE Maths Grade 4GCSE English Grade 3 (or equivalent)
or
Level 3 Qualification in Engineering along with industry experience.

Work Experience

Although this course does not directly offer work experience, there are opportunities for you to undertake a work placement or work experience during your time studying on this course.

Progression

Progression Opportunities

- After completing the HNC, learners can progress to:
- HND in Manufacturing Engineering
- Engineering and manufacturing roles within industry
- Higher level apprenticeships
- Further specialist study