

# Engineering

## HN Flex Engineering - Engineering Design (Unit 4001)

### In Brief

#### Start Date / Duration

This course is planning to start in September and will take 15 weeks to complete. Days and times tbc.

#### Entry Requirements

You must have GCSE grades at 4/C or above (or equivalent) in Maths and English.

You will also need one of the following

- A BTEC Level 3 qualification in an engineering or construction subject
- A-Level or Access to Higher Education qualifications
- Relevant industry work experience

Equivalent international qualifications for the above will also be accepted.

#### You will achieve

On completion of the Pearson HN Flex unit, you will gain 15 credits towards the Higher National Certificate in Engineering for England.

### Course Overview

HN Flex modules are ideal for those looking to enhance their skills without committing to a full qualification. This course includes a 15-credit unit within the Engineering HNC, progressing towards a Higher Technical Qualification upon completion of both HNC and HND. It provides insight into a cutting-edge programme for upskilling in engineering careers, introducing methodical steps used by engineers to create functional products.

## Course Content

Design can turn an idea into something useful and a problem into a solution. Engineers need a sound understanding of the design process, and this unit will increase your knowledge and skills. Among topics studied in this unit, you will explore critical path analysis, market analysis, design project management, safety and risk, calculations, drawings and concepts, and ergonomics.

By the end of the unit you will be able to:

- Plan a design solution and prepare an engineering design specification in response to a design brief.
- Create possible technical solutions to address design specifications.
- Prepare an industry-standard engineering technical design report.
- Present to an audience a design solution.

Logo for the Institute of Technology logo [<https://www.barnsley.ac.uk/syiot/>]

## How will I be assessed?

There will be a range of assessment methods used through practical application, which may include practical sessions, essays, reports, presentations and projects.

## What Equipment Will I Need?

All equipment will be provided.

## Where will I study?

Science, Technology, Engineering and Maths (STEM) Centre  
Old Mill Lane  
Barnsley  
S70 2LA

## What can I do next?

You can study another HN Flex unit (HN Flex Engineering – Engineering Maths (Unit 4002) | Barnsley College [<https://www.barnsley.ac.uk/course/hn-flex-engineering-engineering-maths-unit-4002/>] ), or progress on to the full HNC Engineering for England course.

[<https://www.barnsley.ac.uk/course/engineering-for-england-higher-national-certificate-hnc-htq-full-time/>]

## How much does the course cost?

Each individual unit costs ??750

## Extra information

## Contact the Information Unit

For further information please contact our friendly Information Team on +44 (0)1226 216 123 or email [info@barnsley.ac.uk](mailto:info@barnsley.ac.uk) [mailto:info@barnsley.ac.uk]

## Disclaimer

Please note we reserve the right to change details without notice. We apologise for any inconvenience this may cause.

**Last updated:** 19th December 2024

### Want to apply?

Visit <https://www.barnsley.ac.uk/apply> to get started

Call us on **01226 216 123**