

# Engineering

## HN Flex Engineering - Engineering Maths (Unit 4002)

### 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 be gain 15 credits towards the Higher National Certificate in Engineering for England.

### Course Overview

HN Flex modules are a great option for anyone who wishes to increase their skills and knowledge without committing to studying for an entire qualification. In this course you will complete a 15-credit unit within the Engineering HNC, which can lead towards a Higher Technical Qualification on complete of both the HNC and HND.

This single unit offers an insight to a cutting-edge programme aimed at those who are eager to upskill and follow a career in various job roles within the Engineering sector. Through this unit you will be develop your skills in mathematical principles and theories, which underpin the engineering curriculum.

This course is delivered as part of the South Yorkshire Institute of Technology (SYIoT).  
[<https://www.barnsley.ac.uk/syiot/>]

## Course Content

Through this unit you will be introduced to mathematical methods and statistical techniques in order to analyse and solve problems within an engineering context. On completion you will be able to use mathematical methods in a variety of engineering examples, interpreting data and analysing to solve engineering problems.

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

- Identify mathematical methods used in engineering examples
- Investigate applications of statistical techniques in order to interpret and present data
- Solve problems using analytical methods
- Examine how differential and integral calculus can be used to solve engineering problems.

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 Design (Unit 4001) | Barnsley College [<https://www.barnsley.ac.uk/course/hn-flex-engineering-engineering-design-unit-4001/>]), 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:** 8th October 2024

### Want to apply?

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

Call us on **01226 216 123**