

# Computing, Digital and IT

## Software Developer Level 4 Apprenticeship

### In Brief

#### Start Date / Duration

You may start an apprenticeship at any time. The duration of this apprenticeship is typically 24 months.

#### Entry Requirements

Individual employers will set the selection criteria, but this might include five GCSEs and/or A levels; a Level 3 Apprenticeship; other relevant qualifications and experience; or an aptitude test with a focus on functional maths.

You will need to find an employer to employ you as an apprentice. Please see our [Apprenticeship vacancies](#).

#### You will achieve

You will achieve a Level 4 Software Developer Diploma (Apprenticeship Standard).

### Course Overview

Why not start a successful career as a Software Developer?

This apprenticeship provides the fundamental skills and knowledge of software development and coding. By designing and testing code you will understand concepts and theories that are used in the industry and utilise these skills across a range of languages and paradigms.

You will focus on a number of programming languages (dependent on employer) and Object Oriented, Event Driven and Database programming skills, front and back-end programming and logic, typically work as part of a larger team and build and test simple applications.

As an apprentice, you will also learn to interpret design documentation and specifications and be given the opportunity to work with seasoned professionals and practitioners and supported to learn the trade.

Visit the Institute for Apprenticeships website

[<https://www.instituteforapprenticeships.org/apprenticeship-standards/software-developer/>] for further information regarding the apprenticeship.

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

## Course Content

Love Programming? Looking for your perfect career? Then join us on our new Software Developer Apprenticeship and make an exciting start.

Our Software Developer apprenticeship equips learners with the advanced technical skills they need for their role, developing a core set of technical and academic skills.

Whilst learning how to build, manage and deploy code into enterprise environments, learners will cover the principles of software development, how to write high quality code (logic), develop effective software and build and test applications to engineer the perfect solution.

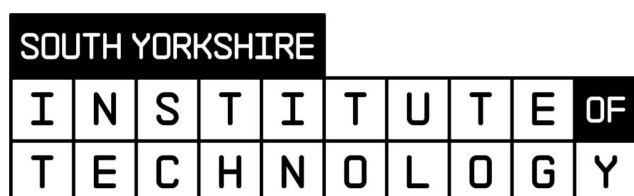
This apprenticeship will therefore cover:

- Logic – writing good quality code (logic) with sound syntax in at least one language
- User interface Design – developing effective user interfaces for at least one channel
- Data Analysis – effectively linking code to databases/data sets
- Testing – testing code and analysing results to correct errors found using either V-model manual testing and/or using unit testing procedures

Learners will also be expected to advance their learning in problem solving – applying structured techniques to problem solving, debugging and resolving issues; design – creating simple data models and software designs to effectively communicate understanding of programs; analysis – create basic analysis artefacts, such as user cases and/or user stories and integrate elements of deployment – by utilise skills to build, manage and deploy code into enterprise environments. To support these activities, learners will therefore cover:

- Software designs and functional/technical specifications
- Company defined ‘coding standards’ or industry good practice for coding
- Testing frameworks and methodologies
- Company, team or client approaches to continuous integration, version and source control
- Respond to the business environment and business issues related to software development
- Operate effectively in their own business’s, their customers’ and the industry’s environments
- Apply the maths required to be a software developer (e.g. algorithms, logic and data structures)
- Follow software development lifecycle(s) – reviewing and appreciating similarities and differences (taking into account positives and negatives of approaches) between agile, rapid and waterfall software development methodologies etc.

We also aim to make our learners professional practitioners and develop skills, attitudes and behaviours commensurate with the competency of this role. This includes applying logical and creative thinking skills, analytical and problem solving skills, developing the ability to work independently and in teams, developing and using initiative and communicating effectively in a variety of situations to a range of internal and external stakeholders.



## How will I be assessed?

On Programme Assessment will include a mixture of:

- Practical demonstrations
- Work based projects
- Written assessments
- Portfolio
- Observations
- End Point Assessment

## What Equipment Will I Need?

You will need to provide your own writing materials and a USB stick.

## Where will I study?

You will study within the workplace and attend classes at Barnsley College SciTech Digital Innovation Hub, Falcon Street, Barnsley, S70 2EY.

## What can I do next?

You can progress onto higher level degree and/or apprenticeship study or apply for a vast array of digital roles that include:

Web Developer, Application Developer, Mobile App Developer, Games Developer, Software Developer.

See what careers are available in the Computing [<https://www.barnsley.ac.uk/app/uploads/2023/10/Computing-careers-2023-24.pdf>] and Games [<https://www.barnsley.ac.uk/app/uploads/2023/10/Games-Design-careers-2023-24.pdf>] sectors. Use our online careers tool, Career Coach [<https://barnsley.lightcastcc.com/?radius=&region=Barnsley>] , to find out what your next steps could be.

## How much does the course cost?

There is no cost to being an apprentice. All costs associated with your apprenticeship, including the cost of training and your salary, will be paid by your employer.

## Financial support

You may be eligible for assistance with expenses such as travel, books, equipment and childcare. For further information please contact the Student Services Team on +44 (0)1226 216 267.

## Extra information

## Contact the Apprenticeship Team

For further information please contact the team on 01226 216166 or email: [apprenticeships@barnsley.ac.uk](mailto:apprenticeships@barnsley.ac.uk) [mailto:[apprenticeships@barnsley.ac.uk](mailto:apprenticeships@barnsley.ac.uk)]

## Want to join Barnsley Sports Academy and the Sports Village?

Barnsley College has a range of sports opportunities for all students to take part in, gain professional training and compete nationally and internationally. We also have a state-of-the-art fitness village, Honeywell Sports Village [<https://www.barnsley.ac.uk/shops-services/honeywell-sports-village/>] where students can make use of our fitness suite, spinning studio and classes for competitive rates. You don't have to be studying sport to get involved in the Sports Academy [<https://www.barnsley.ac.uk/barnsley-sports-academy/>].

## Additional Learning Support

Our Additional Learning Support team can provide you with the support you need. Please contact them on +44 (0)1226 216 769.

## English and Maths

Having good English and Maths qualifications are important for most careers and we want to give you the help you need to succeed.

If you are aged 16 – 19 and don't already have a grade C/4 or above in GCSE English and Maths they will automatically be included in your study programme. If you want to work towards higher grades in English and Maths we can help you do that too.

Need a higher level Maths qualification? We offer a [Level 3 Mathematical Studies \(Core Maths\)](#).

This can be added to your study programme.

If you need any further information, please contact our friendly [Information Team](#).

## Disclaimer

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

**Last updated:** 14th March 2024

### Want to apply?

Visit <https://www.barnsley.ac.uk/apply> to get started  
Call us on **01226 216 123**

