SOFTWARE DEVELOPMENT TECHNICIAN
APPRENTICESHIP LEVEL 3

bcs The Chartered Institute for IT — Approved Centre

For new or existing staff

This apprenticeship standard is a great route to build the skills, knowledge and behaviours required to begin a career in software development. A Software Development Technician typically works as part of a software development team, building simple software components such as web, mobile or desktop applications. Learners will obtain an appreciation of the concepts, approaches and techniques of software programming, and the ability to apply these to simple components used by teams within their organisation and their customer base.

Qualification

BCS Software Development Context and Methodologies Module

BCS Programming Module
This apprenticeship is recognised for entry onto the Register of IT Technicians upon confirming an appropriate SFIA level 3 Professional competence.

Completers may want to progress to Software Developer L4 / Software Tester L4

Delivery model and duration:
Workplace and college block delivery

Duration: Up to 18 months

Ideal for:
- Junior Web Developer
- Junior Application Developer
- Junior Mobile App Developer
- Junior Software Developer

The apprenticeship will cover the following core areas:

- Logic and writing code
- Security principles
- Development support
- Communication
- Data: linking to database types and embed data queries within their code
- Testing and analysing code to identify errors, designing manual tests and understand expected results
- Analysing data to ensure they know and can meet the customers' requirements
- Development lifecycle
- Quality: can identify and follow standards and good practice

Benefits to business:
- Develop the skills your business needs
- Get qualified and motivated staff
- Future proof your business
- Professional qualifications for your staff

Entry Criteria:
- GCSEs in English and maths grade 9 - 4 or A*- C

Benefits for learners:
- Gaining industry recognised professional qualifications
- Developing skills that will increase your career potential
- Industry Support from industry experienced staff working with the British Computing Society
- Working with the British Computing Society & Becoming a BCS member

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GC Gloucestershire College

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End Point Assessment

The end point assessment is completed in the last few months of the apprenticeship. It is based on:

- Portfolio of evidence: produced towards the end of the apprenticeship, containing evidence from real work projects which have been completed during the apprenticeship, usually towards the end, and which, taken together, cover the totality of the standard, and which is assessed as part of the end point assessment

- Synoptic project: giving the apprentice the opportunity to undertake a business related project over a one week period away from the day to day workplace

- Employer reference

- Interview: exploring what has been produced in the portfolio and the project as well as looking at how it has been produced

- An independent assessor (from the BCS) will assess each element of the end point assessment and will then decide whether to award successful apprentices with a pass, a merit or a distinction

Unit	Overview
Software Development Context and Methodologies	The apprentices should be able to demonstrate knowledge and understanding of software development and its underlying architecture, its principles and techniques. This module focuses on software development context and methodologies, with the key topics as follows: • Appreciate the business context and marketing environment for software development. • Recognise that there are different methodologies that can be used for software development. • Understand roles within the software development team. • Understand the structure of software applications and the particular context for multiple development platforms. • Appreciate all stages of the software development lifecycle. • How software testing contributes in the production of software and systems to a known quality. • Understand the role of configuration management and version control systems and how to apply them.
Programming	The apprentice will learn and apply the fundamental principles and concepts of software development including abstraction, logic, algorithms and data representation. They will learn how to write code to solve problems and how to debug the resulting program.