Programme Specification

Digital and Technology Solutions (Software Engineer) {Apprenticeship-GlosColl} [GlosColl]

Version: 2025-26, v2.0, Validated

Contents

Section 1: Key Programme Details

Part A: Programme Information

Programme title: Digital and Technology Solutions (Software Engineer) {Apprenticeship-GlosColl} [GlosColl]

Highest award: BSc (Hons) Digital and Technology Solutions (Software Engineer)

Interim award: BSc Digital and Technology Solutions

Interim award: DipHE Digital and Technology Solutions

Interim award: CertHE Digital and Technology Solutions

Awarding institution: UWE Bristol

Affiliated institutions: Gloucestershire College

Teaching institutions: Gloucestershire College

Study abroad: No

Year abroad: No

Sandwich year: No

Credit recognition: No

School responsible for the programme: CATE School of Computing and Creative Technologies, College of Arts, Technology and Environment

Professional, statutory or regulatory bodies: Not applicable

Apprenticeship: ST0119

Modes of delivery: Full-time

Entry requirements: The recommended entry requirements are to include three 'A' levels at grade C or above, preferably maths and other related subjects such as IT and science, or other relevant qualifications such as a related BTEC extended diploma at MMM or a pass at a related apprenticeship such as the software developer apprenticeship. Additionally, Level 2 English and Maths at Grade 4/C or above

Please visit the website for up-to-date entry requirements.

For implementation from: 01 September 2023

Programme code: I99H13

Section 2: Programme Overview, Aims and Learning Outcomes

Part A: Programme Overview, Aims and Learning Outcomes

Overview: The BSc(Hons) Digital and Technology Solutions Degree Apprenticeship has been developed in partnership with employers, and in accordance with the Digital and Technology Solutions Professional standard (ST0119).

A Digital and Technology Solutions Professional provides technology enabled solutions to internal and/or external customers, in a range of areas including software, business and systems analysis, cyber security, data analysis and network infrastructure. They implement technology solutions that enable businesses to develop new products and services and to increase an organisation's productivity using digital technologies. They are confident, competent and capable independent Technology Solutions Professionals, able to operate in a range of related roles.

As part of this programme, four key pathways have been designed, ensuring students have access to specialist roles, as identified by employers. This is the programme specification for Software Engineer.

Within the Software Engineer specialist pathway you will be expected to design, build and test high-quality software solutions. The software engineer role is broader and with higher levels of responsibility than a software developer as you need to apply engineering principles to all stages of the software development process, from requirements, analysis and design, development and data requirements whilst ensuring security robustness is built in. You will typically be working as part of a

larger collaborative team and will have responsibility for significant elements of software projects.

Features of the programme:

Educational Aims: The Digital and Technology Solutions Degree Apprenticeship provides a comprehensive programme of flexible learning to Honours degree level and was created through a collaboration between employers and the participating Universities. The degree apprenticeship is outcomes focused and will be delivered and assessed as a three-year integrated programme. It is centred on an employer defined specification (including the apprenticeship standard), but can be augmented to meet the needs of individual employers. The apprenticeship aims to grow practical technology skills and occupational competence developed in the employer context together with the project, interpersonal and business skills required to operate successfully as a Digital and Technology Solutions Professional.

Programme Learning Outcomes:

On successful completion of this programme graduates will achieve the following learning outcomes.

Programme Learning Outcomes

PO1. Critically analyse a business domain to identify opportunities for improvement, information requirements, analysing technical requirements to select and specify appropriate technology solutions, and to model data solutions using conceptual data modelling techniques.

PO2. Design, build and test high-quality software solutions, applying engineering principles to all stages of the software development process, from requirements, analysis and design, development and data requirements.

PO3. Apply organisational theory and follow a systematic methodology for initiating, planning, executing, controlling, and closing technology solutions projects using industry standard processes, methods, techniques and tools to execute and manage project, communicating effectively with a range of stakeholders.

PO4. Plan, design and manage computer networks with an overall focus on the services and capabilities that network infrastructure solutions enable in an organisational context, analysing and assessing network security risks and their resolution, providing recommendations

PO5. Conduct, analyse and present effective research using engaging, well-structured approaches, to select and specify appropriate technology solutions, including the analyse of ethical and legal implications, and resulting recommendations

PO6. Devise and engage in continuous professional development, evaluating opportunities to further develop knowledge and skills as a Digital and Technology Solutions Professional

PO7. Manage the undertaking, completion and analysis of software engineering business issues, creating an over-arching software solution design.

PO8. Manage the build, implementation and testing of software solutions

PO9. Work closely with key stakeholders to ensure the software solution is understood and correctly used.

Assessment strategy: The types of assessments used throughout the programme will enable students to develop, utilise and demonstrate a range of academic skills and transferable skills. The range of assessment types will ensure that students are required to complete work in several different formats, and this requires intellectual dexterity. It also ensures that all students receive equitable treatment, as no student will be unduly advantaged or disadvantaged due to excessive repetition of format.

Several assignments will require students to apply academic theory into practice, enabling students to demonstrate key knowledge, skills and behaviours in the workplace.

The type of assessments include: essays; practicals, work-based assessments and reports; research; practical examinations; presentations; personal reflections; portfolios. As part of the programme design process, module leaders have identified the most appropriate assessment approach which best suits the nature of the module and aligns to the learning outcomes of the module.

In accordance with the apprenticeship standard, the programme has been designed

with an integrated end point assessment (EPA) that students will undertake once they have achieved 330 credits. The EPA contains assessment methods stipulated by the standard.

Student support: Students on this programme will have access to the full support facilities at both Gloucestershire College and UWE. Both institutions provide a student support service to help students make the most of their study time. Student services are able to answer questions about the courses, the facilities and to signpost to other specialist support including mental health, wellbeing and students with a specific learning difference.

Student services also offer financial advice and provide access to financial assistance. In addition to general student services, Gloucestershire College provides training co-ordinators who support the student in the workplace . Members of the academic team are available during published office hours and during teaching time to provide direct support with specific academic issues. In addition, an assessor from Gloucestershire College will visit the students in their workplace. The purpose of this visit is to review the student's academic and workplace competency progress, offer support and provide feedback on achievements so far.

Students on this programme have a unique opportunity to pursue an integrated degree at the end of which they will have both a higher education qualification and four years of cutting edge digital technology solutions work experience. Where appropriate, teaching and learning will take place in block-release mode in Gloucestershire College's brand new IT rooms as well as within the workplace. Students will have access to specialist facilities at Gloucester College.

Part B: Programme Structure

Year 1

The student must take 120 credits from the modules in Year 1.

Year 1 Compulsory Modules
The student must take 120 credits from the modules in Compulsory modules.

Module Code	Module Title	Credit
UFC4ER-15-1	Fundamentals of Project Management 2025-26	15
UFCFSM-15-1	Business Security 2025-26	15
UFCE4N-15-1	Computer Networks and Protocols 2025-26	15
UFC4EP-15-1	Database Development 2025-26	15
UFCFQM-30-1	Fundamentals of Software Development 2025-26	30
UFC4EQ-30-1	Professional Practice I 2025-26	30

Year 2
The student must take 120 credits from the modules in Year 2.

Year 2 Compulsory Modules
The student must take 120 credits from the modules in Compulsory modules.

Module Code	Module Title	Credit
UFCE4T-15-2	Internet of Things 2026-27	15
UMMDVX-15-2	Project Change Control and Quality Management 2026-27	15
UFCFME-30-2	Object Oriented Software Design and Development 2026-27	30
UFC4ES-30-2	Professional Practice II 2026-27	30
UFCF8R-30-2	Webapp Development 2026-27	30

Year 3
The student must take 90 credits from the modules in Year 3.

Year 3 Compulsory Modules
The student must take 60 credits from the modules in Compulsory Modules.

Module Code	Module Title	Credit
UFCFCR-30-3	Collaborative Software Development Project 2027-28	30
UFCFEN-15-3	Cloud Computing Platforms 2027-28	15
UFCE4U-15-3	Professional Practice III 2027-28	15

Year 3 Optional Modules
The student must take 30 credits of optional modules.

Module Code	Module Title	Credit
UFCFSC-30-3	Advanced Web Development and Platforms 2027-28	30
UFCE57-30-3	Artificial Intelligence 2027-28	30
UFCE56-30-3	Coding for Machine Learning and Data Science 2027-28	30

Year 4
Note – Prior to enrolling on UFCFHN-30-3 Digital and Technology Solutions End-Point Assessment apprentices must achieve 330 credits, including all compulsory modules and all optional modules for their chosen specialism.

Year 4 Compulsory Modules
The student must take 30 credits from the modules in Compulsory Modules.

Module Code	Module Title	Credit
UFCFHN-30-3	Digital and Technology Solutions End-Point Assessment 2028-29	30

Part C: Higher Education Achievement Record (HEAR) Synopsis

Designed in partnership with employers, this integrated Degree Apprenticeship programme provides graduates with the skills and capabilities required by UK business for the specification, design, delivery and operation of ICT systems, services and solutions in a range of business contexts and application domains.

It develops technically competent individuals who think and communicate effectively and who can conduct inquiry, solve problems, undertake critical analysis and deliver effective software systems solutions in a constantly changing business context.

It provides a solid foundation for lifelong learning, emphasising the development of knowledge, skills and professional values essential to the practice of systems development.

Part D: External Reference Points and Benchmarks

Part E: Regulations

Approved variants to University Academic Regulations and Procedures:

The following are relevant to the End-Point Assessment module -UFCFHN-30-3 Digital and Technology Solutions End-Point Assessment:

Regulations D5 (Module types) and D6 (Requirements to pass a module):
- This module has two assessment tasks, each with a mark expressed as a grade (Distinction/Pass/Fail), not as a percentage.
- The overall module outcome will be graded as Distinction/Merit/Pass/Fail in line with the Digital and Technology Solutions Professional assessment plan.

Regulations D7 (Failure of a Module) and D8 (Retaking a Module):
- IfATE regulations state that the apprentice's employer will need to agree that a resit or retake is an appropriate course of action. UWE's regulations need to align with this.
- For the purposes of the apprenticeship outcome only, a resit or retake will be

capped at a Merit, unless the university determines there are exceptional circumstances requiring a resit or retake. There is no capping of this module for the degree outcome.

Regulation D12 (Requirements for the Award of an Undergraduate Degree):
- The End-Point Assessment module grade will count towards the overall degree classification.