



For **new** or **existing** staff

Cyber Security Degree Apprenticeship Level 6

Delivered by Gloucestershire College and UWE Bristol

This apprenticeship Standard is suitable for a cyber security technical professional operating in business or technology/engineering functions across a range of sectors including critical national infrastructure (such as energy, transport, water, finance), public and private, large and small. They will usually operate considerably autonomously, and may lead teams which research, analyse, model, assess and manage cyber security risks; design, develop, justify, manage and operate secure solutions; and detect and respond to incidents. They work in accordance with applicable laws, regulations, standards and ethics.

Delivery model and duration:

Workplace assessment and college block delivery (average 1 week per month)

Duration: 36 months plus up to six months for End Point Assessment

Ideal for:

- Cyber Risk Manager
- Cyber Risk Analyst
- Cyber Research Analyst
- Cyber Incident Manager
- Cyber Security Engineer
- Cyber Security Design Engineer

The apprenticeship will cover the following core areas:

- Foundations of cyber security
- Network foundations
- Information management
- Computer architecture
- Operating system principles
- Algorithm and program design
- Malware, threats and defensive programming
- Risk assessment
- Security assurance
- Legal, regulatory, compliance and standards

Benefits to business:

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

Qualification:
Cyber Security Technical Professional Integrated Degree Level 6

Completers may want to progress to
Digital and Technology Solutions Specialist Integrated Degree Level 7

Entry Criteria:

- 5 GCSEs including English and maths grade 9 - 4 or A* - C and 3 A Levels including maths

Benefits for learners:

- Achieve an honours degree from UWE Bristol
- Develop skills that will increase your career potential
- Get support from industry experienced staff
- Be recognised for entry to the Institute of Information Security Professionals membership at Associate level



Why work with Gloucestershire College

We will work in partnership with you to help you achieve your business objectives by providing exceptional apprenticeship programmes, a comprehensive range of staff training and skills development courses and access to an unrivalled resource of motivated and work ready employees.

☎ 01452 563400

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End Point Assessment

The End Point Assessment will test the entire Standard (skills, knowledge and behaviours) and be undertaken as follows:

- **Portfolio of evidence** – produced towards the end of the apprenticeship, containing evidence from real work projects which have been completed during the apprenticeship. The portfolio will inform the technical discussion
- **Practical test** – four exercises to assess skills, knowledge and behaviour, in a controlled environment over 48 hours
- **Employer reference** – confirming the apprentice has met the standards
- **Technical discussion** - to elicit sufficient evidence against the knowledge, skills and behaviours to inform whether the minimum standard has been achieved
- Completion and achievement of all the modules in the BSc Cyber Security Technical Professional Degree
- Passes at Level 2 English and Maths (If not already achieved)

Two independent assessors (from a University) 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.

Components

- BSc (Hons) Cyber Security Technical Professional degree

Year	Overview
Year 1	Covers hardware, operating systems and architecture, networking, programming and cyber threats.
Year 2	Covers mathematics and algorithms, malware analysis and reverse engineering, cryptography, operating system security, embedded systems security and information systems security.
Year 3	Covers security assurance, ethical hacking and penetration testing, security case development, cybersecurity professionalism, reflective practice and a significant project.
Year 4	Completion of workplace projects and portfolio preparation. End point assessment.
Years 1 - 4 Employment	For the duration of the apprenticeship, technical competencies will be assessed in the workplace. These will include: building networks and digital systems, writing programs, analysing malware, identifying threats, undertaking risk assessments, designing secure systems and managing intrusion responses.

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