BSc (Hons) Digital & Technology Solutions

Degree Apprenticeship Overview for Employers

2017-2018

About this Apprenticeship

Standard: Digital & Technology Solutions Professional

Level: 6 (BSc (Hons))

Funding: Levy Funded through Digital Account and Co-Investment available for non-levy paying organisations

Specialisms

Module packages are available to enable Apprentices to be specialised in either:

Software Engineering
The primary role of a software engineer is to be able 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 they 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. They will typically be working as part of a larger collaborative team and will have responsibility for significant elements of software projects.

Network Engineering
The primary role of a network engineer is to design, install, maintain and support communication networks within an organisation or between organisations. They need to maintain high levels of network performance and availability for their users, such as staff, clients, customers and suppliers. They will understand network configuration, cloud, network administration and monitoring tools, and be able to give technical advice and guidance. As part of their role they need to be proficient in technology solutions as they will analyse system requirements to ensure the network and its services operate to desired levels. They will need to understand the data traffic and transmission across the network and they have a major role to play in ensuring network security.

Cyber Security Analyst
A cyber security analyst is responsible for the implementation, maintenance and support of the security controls that protect an organisation's systems and data assets from threats and hazards. They ensure that security technologies and practices are operating in accordance with the organisation's policies and standards to provide continued protection. They require a broad understanding of network infrastructure, software and data to identify where threat and hazard can occur. They are responsible for performing periodic vulnerability assessments to evaluate the organisation's ongoing security posture and will provide visibility to management of the main risks and control status on

an ongoing basis. They respond to security incidents and implement resolution activities across the organisation.

Duration

This is 4 year programme with an integrated End-Point-Assessment.

Academic Award

Apprentices will qualify with an undergraduate degree: BSc (Hons) Digital & Technology Solutions.

Course Description

This Degree Apprenticeship is for employers who require skilled IT staff, either because they are a business operating in the Tech / Computing / Development industries or simply because they are reliant on a large IT infrastructure.

Digital and Technology Solutions Professionals implement technology solutions that enable businesses to develop new products and services and to increase an organisations productivity using digital technologies.

Teaching Schedule

This apprenticeship is delivered via 'Blended Learning' which is a combination of online distance-learning and in-person teaching and learning. The in-person teaching is delivered in 3 week-long 'blocks', on our Cambridge campus, at the start of each academic term.

Dates for current academic year 2017-18 are as follows:

11-15 September 2017

15-19 January 2018

14-18 May 2018

Employer Commitments

Employers commit to supporting apprentices with:

- o   A supervisor / Mentor for the duration of Apprenticeship
- o   Enabling the Apprentice to spend 20% of their working hours to committed to their studies through 'Off-the-Job' learning.
- o   Access to suitable experiences and opportunities to enable them to complete the portfolio of evidence required by the assessment plan.
- o   Taking regular updates from the university on the progress of the apprentice on the academic programme.

Apprentice Mentor

The ideal mentor for this apprenticeship is somewhat dependent on the type of apprentice you are supporting. However, the mentor should be able to support the apprentice to reconcile and relate the academic teaching and learning they access, through the taught part of the programme (online and in person), to their role within your organisation. The key responsibilities of the mentor are;

- Supporting the apprentice in the workplace through the duration of the study
- Identifying and exploring opportunities to apply the learning gained from academic study within the organisation and gain the Knowledge, Skills and Behaviours to evidence the standard
- Helping the mentee to identify goals and establish a sense of direction
- Provide review and feedback to apprentice
- Participate where possible in formal progress review meetings with ARU and the apprentice
- Sign off activities are recorded on the e-portfolio and provide feedback on apprentice performance
- Ensure that the apprentice is progressing well in the application of learning and will intervene/ involve the university when needed.

Academic Entry Requirements

The minimum academic entry requirement is 96 UCAS Tariff points this is equivalent to:

- 3 A levels at grade CCC with at least one grade coming from a STEM (Science, Technology, Engineering or Maths) subject
- BTEC National Diploma MMM (3 Merits)
- Access to HE Qualification
- All appropriate and equivalent, UK and international, Level 3 qualifications will be considered

In addition applicants will need to have 5 GCSEs at grades C / 4 or above (or equivalent) including English and Maths.

If English is not your first language you will be expected to demonstrate a certificated level of proficiency of at least IELTS 6.0 (Academic level- with no individual score being lower than 5.5) or equivalent English Language qualification, as recognised by Anglia Ruskin University.

Advanced Entry

Apprentices who already have relevant Higher level qualifications (HNC/D, Foundation Degree etc.) may be considered for advanced entry to the course. These applications will be considered on a case-by-case basis and may require an interview.

Assessment

The assessment of the Degree Apprenticeship is constituted of three main elements:

1. Successful completion of the academic modules, which may take the form of; essays, exams, project work, practical activities and poster displays.

2. Maintenance and completion of an 'e-portfolio' through which apprentices gather and present a range of materials used to evidence that they have the skills required by the Apprenticeship Standard.
3. End-Point-Assessment (EPA), as an 'integrated' Degree Apprenticeship the EPA is the apprentice's Undergraduate Major Project (sometimes known as a Dissertation).

Cost

This Degree Apprenticeship is in funding band 15 and costs £27,000.

Levy-paying employers will be billed monthly from their 'Digital Account' with the Apprenticeship Service. 20% of this figure is held back as a 'completion payment' and will be billed when the apprentice undertakes their EPA.

Non-levy paying employers will pay their 10% 'Co-investment' contribution on an annual basis, Anglia Ruskin University will secure the rest of the funding from the Skills Funding Agency.

Course Dates for 2018-19 (tbc)

Commencement and Teaching Block I: 10/09/18

Teaching Block II: 14/01/19

Teaching Block III: 13/05/19

Appendix 1

BSc (Hons) Digital and Technology Solutions Degree Apprenticeship
Structure Diagram

Year	Level	Trimester	Credits	Software Engineer	Cyber Security	Network Engineer
1	4	Tri 1	30	Fundamentals of Software Development		
1	4	Tri 2	30	Computer and Network Technologies		
1	4	Tri 3	30	Workplace Skills and Learning		
2	4	Tri 1	15	Fundamentals of Web Development		
2	4	Tri 1	15	Enterprise Analytics		
2	4	Tri 2	30	Object Oriented Data Design		
2	4	Tri 2	30		Network Switching and Routing	Network Switching and Routing
2	5	Tri 3	30	Digital Technology Solutions Design Project		
3	5	Tri 1	30	Digital Security and Malware		
3	5	Tri 2	30	Object Oriented Software Development		
3	5	Tri 2	15		Cloud Based Application Development and Security	Cloud Based Application Development and Security
3	5	Tri 2	15		Information Security Management and Governance	Information Security Management and Governance
3	6	Tri 3	30	Professional Issues and Entrepreneurship in IT		
4	6	Tri 1	30	Database Application Programming		
4	6	Tri 1	30		Ethical Hacking, Network Security & Incident Response	
4	6	Tri 1	30			Network and IT Infrastructures

4	6	Tri 2-3	60	Apprenticeship Final Project