Department of Computer Science and Information Systems

BSc (Hons) Digital and Technology Solutions Degree Apprenticeship

Tech Partnership Accredited

Employer Handbook
2017-18
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1. Introduction
This guide provides key information for employers about the BSc (Hons) Digital and Technology Solutions Degree Apprenticeship at Birkbeck, University of London.

1.1 Degree Apprenticeships
Degree Apprenticeships offer an innovative and cost-effective way of attracting and retaining high-calibre employees and graduates to your business. A degree apprenticeship is a real job where the employer invests in training and the employee receives a first degree during the course of a workplace apprenticeship. Apprentices work for a minimum of 30 hours per week. They study part-time or block-release.

1.2 Digital and Technology Solutions Degree Apprenticeships
Digital and Technology Degree Apprenticeships are designed to develop competent IT professionals in a range of specialisms. Each specialism is based on a government-approved standard that sets the baseline quality for teaching, learning and assessment.

1.3 BSc (Hons) Digital and Technology Solutions Degree Apprenticeship at Birkbeck
Birkbeck offers the BSc (Hons) Digital and Technology Solutions Software Engineering specialism. This specialism is designed to develop graduate-level software engineers capable of operating in a range of software-related roles, using state-of-the-art technologies to innovate and increase productivity.

1.4 Tech Industry Gold Accreditation
The BSc Digital and Technology Solutions Degree Apprenticeship has Tech Industry Gold accreditation. Tech Industry Gold degrees and degree apprenticeship programmes have been assessed as meeting the employer-relevant standards defined by the Tech Partnership. Tech Partnership is a consortium of leading employers (e.g. IBM, Fujitsu, HMRC, Network Rail and BT), collaborating to develop a highly skilled and professional digital workforce throughout the UK.
2. Degree Apprenticeship Key Roles

Programme Director
Gordon McIntyre
gordon@dcs.bbk.ac.uk
020 7631 6851
Responsible for oversight and management of academic matters, including syllabus, assessment, progression and graduation.

Apprenticeships Manager
Chris Hatfield
degree-apprenticeships@bbk.ac.uk
07970274999
Responsible for the overall administrative running of degree apprenticeships at Birkbeck.

Programme Administrator
Andrew Moles
BScAdmin@dcs.bbk.ac.uk
020 7631 6722
Responsible for day-to-day administrative enquiries relating to enrolments, timetables, payments, attendance, options, etc.

Academic Mentors
Responsible for day-to-day academic supervision and support of apprentices. Monitor apprentice progress and communicate progress reports. Work with the workplace mentor to align workplace and academic learning.

Workplace Mentors
Assigned by the employer to support the apprentice in the workplace, and to monitor and ensure apprentice progress. The workplace mentor will meet the apprentice regularly, and meet the apprentice’s academic mentor on a termly basis.

Peer Mentors
Responsible for helping new undergraduate students transition into the HE environment, allowing them to address any study-related or personal concerns they may have in an informal relationship.
3. General Information

3.1 Programme Audience
The Programme is suitable for newly recruited apprentices and existing employees working or intending to work in the following areas:

- Software Engineering
- Computer Programming
- Systems Analysis
- Systems Design
- Software Developer
- Software Testing

3.2 Programme Aims
The Degree enables apprentices working in a software development role to develop their knowledge and skills in the area of Software Engineering. The Programme has a strong emphasis on the development of practical software development skills, through hands-on, lab-based teaching. This includes opportunities for apprentices to undertake a significant software development project.

3.3 Programme Learning Outcomes
The programme implements all the required learning outcomes for the Digital and Technology Solutions Degree Apprenticeship, as described in the UK Government approved apprenticeship standard.

3.4 Programme Structure
The Programme is taught part-time over four years. Apprentices attend two to three evenings a week during term time. Classes are held 6 – 9pm. Exams are held during term three.

To graduate successfully from the BSc Digital and Technology Solutions, students must gain 360 credits: 75 credits at level 4, 105 credits at level 5 and 180 credits at level 6. This breaks down into twenty 15-credit modules, and two 30-credit project modules. There is one option module. All other modules are compulsory, and must be passed.

The option modules are selected in year three of the Degree, and taken in year four. As far as possible, the chosen option should develop the apprentice’s workplace specialism.
4. Applications and Admissions

4.1 Applications
Initially, employers should advertise for apprenticeship positions through their preferred channels; however, we recommend that all apprenticeship positions are additionally advertised via the UK Government Find an Apprenticeship Service. Internal recruitment processes should be finalised, and suitable candidates identified with sufficient time for university admissions processes to be completed.

Employers should send details of selected candidates to the Apprenticeships Manager (degree-apprenticeships@bbk.ac.uk), including details of all academic qualifications. The apprentice and/or employer must also complete the relevant online application form for the Degree.

Once applications are received, the Programme Director will assess the suitability of each candidate. As a rule, candidates need to meet the university’s standard undergraduate entry requirements. However, allowances can be made for factors such as age, work experience, etc. in determining a candidate’s suitability for a place.

If a candidate meets the admissions criteria, and is accepted onto the Programme, a formal offer of a place will be made to the apprentice and the employer via the Apprenticeships Manager. From application to offer usually takes no longer than two to three weeks.

If the employer accepts an offer of a place, then a formal written agreement between the University and the employer will be agreed, signed and exchanged. The written agreement will detail the contractual obligations of both parties with regards the degree apprenticeship, including:

- Documentation of the apprentice’s eligibility for the apprenticeship.
- Payment schedule.
- Dispute resolution mechanisms between employer and provider.
- Confirmation of employer eligibility for incentive payments.
- Confirmation that learning support is available to support apprentices with additional learning needs.

The written agreement will also include a commitment statement signed by the apprentice, the employer and the University. The commitment statement will contain the following:
• Details of how the apprentice will be supported by the employer and the University through the duration of his/her study.
• The planned content and schedule for training and end-point assessment.
• Details of the standard being followed.
• Apprentice; attendance and study time
• Roles and responsibilities for employer, provider and apprentice and arrangements for how the three parties will work together.
• Support and guidance available for the student and employer.

4.2 Accreditation of Prior Learning
If a candidate has previously studied at university level, or has relevant work equivalent experience, we may be able to offer Accreditation of Prior Learning. For APL to be agreed, the prior learning must:

• Be at an equivalent academic level.
• Be current.
• Must be certified by corresponding documentation (e.g. an academic transcript, or employer’s letter).
• Have been attained at a bona fide academic or professional institution.

4.3 Admissions
Once a written agreement and commitment statement is in place, the student and employer will be contacted with enrolment information. This will include:

• ID cards
• Computer account details
• Term dates
• Study schedule
• Induction date and venue

Just before the start of the first term, there will be a general induction for apprentices held at the University campus. At the induction:

• The Programme Director will provide general information about the University, the Department, IT services, skills support services, disability services, etc.
• Staff will work with students to identify any academic, support or disability needs an apprentice may have.
• Students will learn about the university and departmental IT provision, and Birkbeck Library Services.
5. Funding
Employers who are paying the **employer levy** will be able to draw down funds from their digital account via the Digital Apprenticeship Service and direct these to Birkbeck to fund apprentice training. Non-levy paying employers (SMEs) are able to fund 90% of their apprentices’ training from the **Skills Funding Agency** (SFA) but will be required to pay the remaining 10% themselves.

5.1 Tuition Fees
- Total tuition fees for the 4-year programme are £27,000 per apprentice
- Employer fees contributions, paid to the University, will be scheduled on a termly basis.

5.2 Incentive Payments
Additional incentive payments are available to employers in cases where stated criteria are met. For example:

- £2,700 is available to employers when an apprentice successfully completes the Programme.
- £5,400 is available for apprentices aged 18 at the start of the programme.
- £2,700 is available to SMEs with less than fifty employees.

To claim an incentive payment, employers must complete an Incentive Claim Form. This will be issued by the Apprenticeships Manager.

5.3 Payment Process
The University will invoice employers for contributions to fees. Fees must be paid within the time period advised in order for the University to claim co-funding from the SFA. Upon receipt of an Incentive Claim Form, Birkbeck will make a claim to the SFA and pass incentive payments onto the employer.
6. Teaching and Learning

6.1 Delivery
Face-to-face learning is delivered through a combination of lecture, seminar and practical (lab-based) sessions. Class sizes vary depending upon the subject taught and the module popularity. In the event that a class size exceeds thirty students, tutors are supported by one or more demonstrators. Demonstrators are PhD students or professionals working in IT roles.

Face-to-face learning at Birkbeck is augmented through online learning. All students have access to the University virtual learning environment, Moodle. A Moodle account provides students with 24/7 access to learning materials, assignments and subject discussions. It also provides a quick and efficient method of submitting assignments and accessing grades and feedback.
6.2 Syllabus
All students must take and pass the following modules:

<table>
<thead>
<tr>
<th>Module Title</th>
<th>Status</th>
<th>Level</th>
<th>Credits</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Year 1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personal and Professional Development I</td>
<td>Comp</td>
<td>4</td>
<td>15</td>
<td>None</td>
</tr>
<tr>
<td>Mathematics for Computing (MFC)</td>
<td>Comp</td>
<td>4</td>
<td>15</td>
<td>None</td>
</tr>
<tr>
<td>Introduction to Programming (ITP)</td>
<td>Comp</td>
<td>4</td>
<td>15</td>
<td>None</td>
</tr>
<tr>
<td>Information Systems Concepts (ISC)</td>
<td>Comp</td>
<td>4</td>
<td>15</td>
<td>None</td>
</tr>
<tr>
<td>Management Studies I (MS1)</td>
<td>Comp</td>
<td>4</td>
<td>15</td>
<td>None</td>
</tr>
<tr>
<td>Computer Networking (CN)</td>
<td>Comp</td>
<td>5</td>
<td>15</td>
<td>None</td>
</tr>
<tr>
<td><strong>Year 2</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work Based Learning Project (WBL)</td>
<td>Comp</td>
<td>5</td>
<td>30</td>
<td>None</td>
</tr>
<tr>
<td>Software and Programming I (SP1)</td>
<td>Comp</td>
<td>5</td>
<td>15</td>
<td>ITP</td>
</tr>
<tr>
<td>Information Systems Management (ISM)</td>
<td>Comp</td>
<td>5</td>
<td>15</td>
<td>ISC</td>
</tr>
<tr>
<td>Data Structures and Algorithms (DSA)</td>
<td>Comp</td>
<td>5</td>
<td>15</td>
<td>ITP</td>
</tr>
<tr>
<td>Software Engineering I</td>
<td>Comp</td>
<td>5</td>
<td>15</td>
<td>None</td>
</tr>
<tr>
<td><strong>Year 3</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Working in Teams (WIT)</td>
<td>Comp</td>
<td>5</td>
<td>15</td>
<td>None</td>
</tr>
<tr>
<td>Professional Issues in Computing (PIC)</td>
<td>Comp</td>
<td>6</td>
<td>15</td>
<td>None</td>
</tr>
<tr>
<td>Information Security (IS)</td>
<td>Comp</td>
<td>6</td>
<td>15</td>
<td>None</td>
</tr>
<tr>
<td>Software and Programming II (SP2)</td>
<td>Comp</td>
<td>6</td>
<td>15</td>
<td>SP1</td>
</tr>
<tr>
<td>Database Management (DM)</td>
<td>Comp</td>
<td>6</td>
<td>15</td>
<td>ITP and ISC</td>
</tr>
<tr>
<td>Strategic Information Systems (SIS)</td>
<td>Comp</td>
<td>6</td>
<td>15</td>
<td>None</td>
</tr>
<tr>
<td><strong>Year 4</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Final Year Project (DTSP)</td>
<td>Core</td>
<td>6</td>
<td>30</td>
<td>None</td>
</tr>
<tr>
<td>Enterprise Computing (ENTC)</td>
<td>Comp</td>
<td>6</td>
<td>15</td>
<td>SP1</td>
</tr>
<tr>
<td>Software and Programming III (SP3)</td>
<td>Comp</td>
<td>6</td>
<td>15</td>
<td>SP2</td>
</tr>
<tr>
<td>Software Engineering II</td>
<td>Comp</td>
<td>6</td>
<td>15</td>
<td>SE1</td>
</tr>
<tr>
<td>Introduction to Data Analytics using R</td>
<td>Comp</td>
<td>6</td>
<td>15</td>
<td>None</td>
</tr>
</tbody>
</table>

6.3 Final Year Project
Apprentices must complete a final year project to successfully complete the Degree. The project is work-based, and designed to provide students with an opportunity to demonstrate the full range of skills, knowledge and behaviours required by practitioners in the specialism.
The topic of the final year project will be decided in collaboration between the apprentice, the workplace mentor and the academic mentor. It will be decided prior to commencement of the final year of the degree. Ideally, it will derive from the apprentice’s current responsibilities within the workplace.

The project will be assessed through a project portfolio and a presentation. The project portfolio is comprised of a project proposal, practical work and a written report.

6.4 Work-based Learning Module
All students are required to take a 30 credit work-based learning module as part of their studies. The work-based learning module is designed to allow students to apply the theoretical knowledge and skills they have learned in their classes to the specific demands of their work environment.

6.5 E-portfolio
As part of the Degree, apprentices are required to document their work and achievements in an e-portfolio. The apprentice’s e-portfolio will be periodically reviewed each academic year. The e-portfolio is not part of the formal assessment of the Degree. No grade will be allocated to it. However, completion of the portfolio is mandatory for the award of the apprenticeship.

6.6 Study Time
In addition to scheduled study hours, apprentices will need to devote significant time to independent and work-based learning. A typical week during term time will break down as follows:

<table>
<thead>
<tr>
<th>Scheduled study hours</th>
<th>6 – 9 hours</th>
<th>Lectures, seminars, practical sessions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent learning</td>
<td>15 hours</td>
<td>E-learning, assignments, e-portfolio</td>
</tr>
<tr>
<td>Work-based learning</td>
<td>5 hours</td>
<td>Reflective practice, project work</td>
</tr>
</tbody>
</table>

6.7 Progress Monitoring
Regular meetings between the apprentice, the academic mentor and the workplace mentor will provide an opportunity for a review of apprentice progress, and for short and medium term goal setting.

Meetings will take three times per academic year. A minimum of one meeting will take
place face-to-face in the workplace or at the University; other meetings can be held remotely, via video or audio conferencing.

Academic mentors will maintain regular contact with apprentices throughout the academic year to assess progress. They will also discuss apprentice progress with individual subject tutors and the Programme Director, as required. The Programme Administrator will monitor attendance. Workplace mentors will be kept informed of any issues affecting apprentice progress.

6.8 Student Support
Apprentices will be supported throughout the duration of the Degree in academic skills and pastoral matters. Academic support will be provided by academic mentors and the Programme Director. Study skills support will be provided by the Birkbeck Skills Development Services. Pastoral support will be available from the Programme Director, peer mentors and Well-being Services. Students with disabilities will be additionally supported by the University Disability Services Team.
7. Assessment
Assessment of the Degree follows the UK Government assessment plan for BSc (Hons) Digital and Technology Solutions Degree Apprenticeships.

7.1 Assessment Methods
Modules are assessed through a mixture of practical and written coursework, exams, project work and oral presentations. All assessed work at level 5 or above that represents 30% or more of the overall module grade is second marked. All grades returned to students will be accompanied by detailed tutor feedback. Grades are normally returned within three to six weeks of submission, depending upon the weighting of the assessment component.

7.2 Exams
Exams take place during term three of the academic year, usually in May or June. Exams are held during the day. Students will therefore need to be given sufficient leave from work during the exam period to complete their exams. This would normally be a total of two to four working days.

7.3 Coursework Submission
Apprentices will be given a submission date for each piece of coursework. If a piece of coursework is submitted late, but within pre-specified parameters, the resultant grade will be capped at 40%. Where a student has mitigating circumstances for late submission (e.g. illness, bereavement, etc.), no cap will be applied to the awarded grade. To avoid late submission, apprentices should be given sufficient time within their work schedule to complete their required assignments.

7.4 Degree Classifications
The classification of an honours degree is based on the average of all the weighted results for completed level 5 and level 6 modules. The following degree classifications apply:

- First: 70% or above for the average weighted module results
- Upper Second: 60% or above for the average weighted module results
- Lower Second: 50% or above for the average weighted module results
- Third: 40% or above for the average weighted module results
8. Programme Oversight

8.1 Staff-student Exchange
The Programme Team will hold bi-annual staff-student exchange meetings. All students and employer mentors are encouraged to attend these meetings. The meetings are designed to:

- Provide feedback on changes and improvements to the Programme.
- Raise any issues of concern with regards the Programme.
- Suggest improvements to the Programme.

8.2 Tech Partnerships Accreditation
Tech Partnerships accreditation will require periodic renewal, meaning that compliance to employer standards for Degree Apprenticeships will be maintained.

8.3 British Computer Society Accreditation
The Department will be applying for BCS accreditation for the Programme during the next accreditation round. All other undergraduate programmes within the Department currently have BCS accreditation.

8.4 Internal and External Review
The Programme is subject to periodic internal review. The Programme is also subject to QAA scrutiny.
9. Supporting Information

Birkbeck

Academic Regulations
http://www.bbk.ac.uk/registry/policies/regulations

Birkbeck
http://www.bbk.ac.uk/study/2017/undergraduate/programmes/UBSDIGTS_C

BSc (Hons) Digital and Technology Solutions Degree Apprenticeship
http://www.bbk.ac.uk/study/2017/undergraduate/programmes/UBSDIGTS_C

College Study Skills Support
http://www.bbk.ac.uk/mybirkbeck/services/facilities/support

Common Awards Scheme
http://www.bbk.ac.uk/registry/policies/documents/cas-16.7.pdf

Department of Computer Science and Information Systems
http://www.dcs.bbk.ac.uk/

Department Study Skills Support
http://www.bbk.ac.uk/management/current-students/bei-study-skills-support

Disability Office
http://www.bbk.ac.uk/mybirkbeck/services/facilities/well-being-service/disability

Degree Apprenticeships

Degree Apprenticeships
SFA Common Degree Apprenticeship Funding Rules 2016-2017

Skills Funding Agency
https://www.gov.uk/government/organisations/skills-funding-agency

Tech Partnerships
https://www.thetechpartnership.com/techindustrygold

UK Government Apprenticeship Standard (Digital Technology Solutions)