History of Degree Apprenticeships

• First launched in **2015** with the introduction of the **Apprenticeship Levy**
• Initial Government ambition of **3 million apprenticeship starts by 2020**
• Governed by **Institute for Apprenticeships and Technical Education**: monitor performance and approve new Standards for delivery
• Education and Skills Funding Agency set strict **Funding Rules** which training providers and employers must adhere to
• These rules are applicable to **England only**. Scotland and Wales have a different set of rules.
Apprenticeship funding

• All organisations with an annual payroll bill of over £3m pay the Apprenticeship Levy
• 0.5% of an organisations annual payroll bill, paid monthly to the Government and stored in the organisation’s Levy Account
• The money in their pot is theirs to spend on apprenticeship training for their employees
• Funds stay in their Account for 2 years, after which it goes back to Government
• After 2 years, it goes to the Government who use it to subsidise apprenticeship training for companies with a payroll bill below £3 million
# Apprenticeship Levels

<table>
<thead>
<tr>
<th>Apprenticeship Level</th>
<th>Equivalent standard qualification</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>GCSE</td>
</tr>
<tr>
<td>3</td>
<td>A Level / BTEC</td>
</tr>
<tr>
<td>4</td>
<td>Year 1 Undergraduate degree</td>
</tr>
<tr>
<td>5</td>
<td>Year 2 Undergraduate degree</td>
</tr>
<tr>
<td>6</td>
<td>Full Undergraduate degree</td>
</tr>
<tr>
<td>7</td>
<td>Master’s degree</td>
</tr>
</tbody>
</table>
What is an Apprenticeship?

- Outlines the **Knowledge, Skills and Behaviours** (KSBs) required for a particular job / occupation
- Combine work and study by mixing **on-the-job training** with **academic learning**
- Apprentices are be **employed** to do a real job while studying for a formal qualification
- **Paid** at least the apprenticeship age-related minimum wage
- By the end of an apprenticeship, learners will have gained the **skills and knowledge** needed to either succeed in their chosen career or progress onto the next apprenticeship level
Key things to consider

- Apprentices receive a **full time salary** and **pay no tuition fees**
- Often very **competitive application process**
- Can be a different **student experience**
- Required to **balance** academic and work commitments throughout the course
- **Vocational learning**
- **Programme structure** can be very different
Application process

**UCAS**
- Can use one of your university choices
- University will screen your academic suitability
- Details passed to employer
- Employer recruitment screening
- Assessment centre

**Through employer**
- Check employer websites for vacancies
- Application form
- Interview
- Assessment centre

**Through training provider**
- Check university degree apprenticeship webpages
- Application form
- Details passed to employer
- Employer recruitment screening
- Assessment centre
Degree Apprenticeships at the University of Birmingham

Currently running (Level 6 - Undergraduate)
• BSc Computer Science with Digital Technology Partnership (PwC)

In development (undergraduate)
• Laboratory Scientist
BSc Computer Science with Digital Technology Partnership

PwC

- Entry offer: AAA with A Level Mathematics
- Access to Birmingham (A2B)
- UCAS Code: **G402**
- Application process: UCAS application, internal PwC application process and assessment centre
- Course webpage: [https://www.birmingham.ac.uk/undergraduate/courses/computer-science/computer-science-pwc.aspx](https://www.birmingham.ac.uk/undergraduate/courses/computer-science/computer-science-pwc.aspx)
BSc Computer Science with Digital Technology Solutions (Degree Apprenticeship)

<table>
<thead>
<tr>
<th>Modules</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Object Oriented Programming</td>
<td>Advanced Functional Programming</td>
<td>Work placement with employer</td>
</tr>
<tr>
<td></td>
<td>Theories of Computation</td>
<td>Mathematical Modelling and Decision Making</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Artificial Intelligence 1</td>
<td>Security and Networks</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Data Structure &amp; Algorithms</td>
<td>Software Engineering</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Full Stack Application Development</td>
<td>Systems Programming in C/C++</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mathematical and Logical Foundations of Computer Science</td>
<td>Team Project</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Advanced Functional Programming</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Advanced Networking</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Algorithms and Complexity</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Computer Aided-Verification</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Computer Vision and Imaging</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Distributed and Parallel Computing</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Evolutionary Computation</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Human-Computer Interaction</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Language and Cognition</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Machine Learning and Intelligent Data Analysis</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Neural Computation</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Programming Language Principles, Design and Implementation</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Quantum Computing</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Security of Real-World Systems</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Teaching Computing in Schools</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Theoretical Foundations for Security</td>
<td></td>
</tr>
</tbody>
</table>

Core Module: Work-based Project

Optional Modules:
“The department is extremely friendly and all the lecturers and staff are very easy to talk to, making it a wonderful place to learn and develop.”

“The department of Computer Science here is full of amazing people and they have offered a really varied first year, providing modules in so many of the big topics of Computer Science”.

“University of Birmingham is a stunning campus university, right next to a vibrant city, with a beautiful student village where I have been living. There are so many things to love about this course!”

“Working for PwC gives me the best of both worlds, a degree in an amazing university and a job where I am gaining real world experience”.
Useful websites

• Amazing Apprenticeships
  https://amazingapprenticeships.com/resources/
• Prospects
  https://www.prospects.ac.uk/jobs-and-work-experience/apprenticeships/what-is-an-apprenticeship
• UCAS
  https://www.ucas.com/apprenticeships-in-the-uk
• Find an Apprenticeship
  www.findanapprenticeship.service.gov.uk
• Institute for Apprenticeships (apprenticeship standards)
  https://www.instituteforapprenticeships.org/apprenticeship-standards/
Questions?

Katherine Bond
PwC, Manager: Technology Degree Apprenticeships and Schools Engagement
Email: katherine.m.bond@pwc.com

Richard Hewitt
University of Birmingham, Degree Apprenticeships Facilitator
Email: degreeapps@contacts.bham.ac.uk