Introducing BSc Data Science (Graduate Apprenticeship)

This programme provides an opportunity for you to study for a BSc and blend this with working for PricewaterhouseCoopers (PwC) at intervals throughout the programme.

You will be a full-time employee of PwC during the programme and will be productively employed during your time in the workplace, playing an active and valued part on project teams and making meaningful contributions to fee-earning client projects.

You will be able to apply your learning in a challenging but fully supported environment and will have a dedicated people manager, buddies, mentors, and a dedicated development team, and will also be able to access all of the University support systems.

As well as developing your technical skills, you will develop a combination of interpersonal skills (such as rapport building, behavioural styles, working in a team and networking) and consulting skills, (including models of consulting, distinctive business advisor, change management and analytical skills) embedding the PwC experience.

This programme aims to give you a thorough understanding of both mathematics and computing to enable you to operate at the cutting edge of computer and data science, machine learning and artificial intelligence. You will have the flexibility to focus on the areas of computer science or artificial intelligence that most interest you.

Year 1
You will be introduced to basic principles of programming and computation. You will learn how information can be represented and processed in computer systems, as well as fundamental techniques to manage data and solve problems using computer programs.

The year also includes courses in mathematics necessary for all areas of data science. Together these form the foundations of more in-depth study of data science in future years.

After completing Year 1, your summer will be spent working at PricewaterhouseCoopers (PwC) with time to reflect on applying your learning to the workplace.

Year 2
You will cover more advanced mathematics, programming and data structures. You will develop greater understanding of algorithms, learning from data, and mathematics.

Option courses include a variety of subjects from different schools across the University.

After completing Year 2, your summer will be spent working at PricewaterhouseCoopers (PwC) with time to reflect on applying your learning to the workplace and continue your professional development.

Year 3
You will spend Semester 1 on campus and your studies will become more focused.

You will choose specialised courses, according to your own interests, from a range of options in mathematics, computer science, and artificial intelligence.

Coursework assignments typically provide you with experience in practical work, independent problem solving, and group work. Your exact curriculum depends on your selected courses. Options offered include courses in the mathematics and statistics of data science, machine learning, algorithms, databases, and AI.

After Semester 1 you will work from January to August at PricewaterhouseCoopers (PwC) before starting Year 4. During this work period you will be jointly assessed by PwC and the University. This will contribute to your final transcript.

Year 4
In Semester 1 you will choose from a number of advanced course options in mathematics, artificial intelligence and computer science to build a portfolio according to your interests.

Year 4 includes an individual industry-based honours project during Semester 2, where you will learn to develop a viable project starting from a given topic. You will have PricewaterhouseCoopers (PwC) guidance in selecting your project and a supervisor to guide you.

Our facilities
In Years 1 and 2 you will study at the University full-time during the academic year and work at PricewaterhouseCoopers (PwC) during the summer.

In Years 3 and 4, you will spend one semester each year at the University and work at PwC the rest of the time.

Placements
During your periods of work-based learning, you will be productively employed at PricewaterhouseCoopers (PwC) and will play an active, and valued, part on project teams and make meaningful contributions to fee-earning client projects.

You will be equipped with the opportunity to apply your learning in a challenging but fully supported environment. PwC has a client base ranging from local to multinational and global companies, across all sectors and industries.

Career Opportunities
If you successfully complete the programme and achieve a 2:1 (second class, upper division), you will have the opportunity to progress your career with Pricewaterhouse-Coopers (PwC).