

UNIVERSITY OF THE
WEST of SCOTLAND

UWS

GRADUATE APPRENTICESHIPS

BSc (Hons) IT: Software Development



www.uws.ac.uk/GAs

The School of Computing, Engineering & Physical Sciences at University of the West of Scotland (UWS) is inviting applications for September 2019 entry to its Graduate Apprenticeship BSc (Hons) IT: Software Development programme.

The UWS Graduate Apprenticeship (GA) in IT: Software Development is accredited by the British Computer Society (the Chartered Institute for IT). You will study at the brand new UWS Lanarkshire Campus and put your knowledge and skills into immediate practice in the workplace. The innovative work-based learning delivery will enable you to graduate with an honours degree and four years industry experience.

The GA programme uses modern teaching practice with flexible blended learning, industry led projects, and an emphasis on coursework assessment to help students balance their studies with work and life commitments. During the first couple of weeks, students undertake an induction boot camp focusing on preparatory development of essential GA learning skills. Throughout the programme, students are supported by a dedicated team of lecturers. Each student also has a personal academic tutor, workplace mentor, and industry-academic link tutor. Students meet with their support team on average every month both on campus and in the workplace.

Subjects & Topics Covered

The IT: Software Development GA enables you to earn a BSc Honours degree designed by industry while employed full-time in industry. The work and learning you do in your workplace directly counts towards up to ninety percent of your qualification. Apprentices complete 120 credits per year with 80 of these credits awarded for Work Based Learning. The majority of the remaining 40 credits are assessed through coursework mapped to industry standard competencies.

CORE TOPICS

Software Development

- Introduction to programming (Python)
- DevOps methods and toolchains

Software Engineering

- Object Oriented Programming (C# / Java)
- Verification & validation

Software Engineering Practice

- Advanced data structures and algorithms
- Design patterns

Software Research

- Project Management
- Research Methods

SPECIALISMS

Databases & Business Intelligence

- Database & Web Service Development (SQL)
- Advanced Database Applications
- Data Analytics and Business Intelligence

Web & Mobile Applications

- Web Development (HTML5 & CSS)
- Programming for Mobile Devices (JavaScript)
- Advanced Programming for Mobile Devices
- Human-Computer Interfaces & UXD

Security

- Computing Systems
- Information Security Management
- Secure Programming



Entry Requirements

Applicants must be employed full-time in a role with involvement in software development activities.

Year 1

- BBBC (102 UCAS Tariff points) at SQA Higher plus Nat 5 Maths and English
- An appropriate Foundation Apprenticeship or Modern Apprenticeship (MA)

If you are re-entering education after an extended period of professional practice then your industrial experience and previous qualifications could make you eligible for advanced entry. Enquire with our GA team about the **UWS Recognition of Prior Learning** process and how it might work for you.

UWS Programme Team

As well as our team of delivery experts behind the scenes, UWS also allocates the following team of dedicated GA professionals to support companies and apprentices:

Graduate Apprenticeship Project Manager – The Project Manager oversees the UWS GA initiative and supports companies as well as apprentices to deliver the programme that meets their business needs.

Academic Programme Leader – The Programme Leader is responsible for ensuring the delivery of excellent quality teaching and learning, addressing custom requirements, and communicating information to apprentices.

Link Tutor – Further Education provider New College Lanarkshire (NCL) will supply Link Tutors to the GA programme to share their extensive experience in the provision of Foundation and Modern Apprenticeships. Link Tutors will help apprentices to integrate learning into their workplace and support the delivery of the work-based learning modules. Apprentices and company mentors will have meetings with their Link Tutor at least six times per year.

Academic Lecturers – Our GA teaching team is made up of subject-matter experts from the School of Computing, Engineering and Physical Sciences who deliver the IT: Software Development modules through personalised tuition, support and feedback.

Why Choose UWS?

UWS has some of the most modern GA facilities in Scotland. The IT: Software Development GA will be delivered from our Lanarkshire Campus which opened on the Hamilton International Technology Park (HITP) in September 2018. The new Campus offers state-of-the-art advanced learning environments, resource hub, and cutting edge specialist laboratory space alongside an existing technology park.

UWS is multi-campus with access hubs in Ayr, Dumfries, Paisley, Lanarkshire, and London. Our work practices and IT support systems are specifically tailored to co-ordinating an ecosystem of distributed and remote community members. This naturally suits the decentralised nature of the UWS GA delivery structure with apprentices primarily based off campus and in different geographic locations.

The UWS programme is one of the most flexible and customisable GAs in Scotland. Apprentices are central to deciding over 60% of the topics learned during the programme and over two thirds of the programme learning is conducted in the workplace to create a bespoke learning experience in line with the priorities and objectives of the apprentice and their employer.

UWS lecturers are world leaders in industry, teaching, and excellent research. This engaged and outward facing approach underpins a top quality learning experience centred on expert up-to-date education and training content. The School of Computing, Engineering and Physical Sciences is recognised for its excellence in teaching quality and achieved an overall student satisfaction rate of 93% in the iGraduate survey 2017.

Apprentice Learning Journey

WORK BASED LEARNING	WORK BASED MODULES	DELIVERED MODULES
1ST YEAR (LEVEL 7)		
Work Based Learning 1 (Portfolio of Evidence)	Maths for Computing	Introduction to Software Development
	Introduction to Web Development	
	Computing Systems	
2ND YEAR (LEVEL 8)		
Work Based Learning 2 (Group Project)	Database Development	Software Engineering
	Software Development for Mobile Devices	
WORK BASED LEARNING	WORK BASED MODULES	DELIVERED MODULES
3RD YEAR (LEVEL 9)		
Work Based Learning 3 (Portfolio of Evidence)	Research Methods	Software Engineering Practice
	Information Security Management	
	Select at least ONE module from: <ul style="list-style-type: none"> • Database Applications • Project Management for IT • Advanced Programming for Mobile Devices 	
4TH YEAR (LEVEL 10)		
Work Based Learning 4 (Industrial Project)	Computing Honours Project	Select TWO modules or ONE module AND a L9 option from above:
		<ul style="list-style-type: none"> • Data Warehouse Environment • Secure Programming • HCI & User Experience Design

Making IT happen at UWS

Nicole Strain is currently in 4th year of her Graduate Apprenticeship in IT: Software Development at the University's Lanarkshire Campus.



Nicole, who works as a Data Analyst for Glasgow-based Mail Marketing Scotland Ltd, said: *"I had heard some great things from friends about UWS and its IT provision, so was very keen to undertake the GA at the University when the opportunity arose.*

"The GA is great - being able to work full-time gaining work experience while getting a graduate level education is the best of both worlds. The academics at UWS are so helpful and the GA has been a fantastic experience.

"I hope that the GA will enable me to take on more challenging projects in work without requiring as much support from my mentor as well as being able to bring new approaches to challenges that occur in work.

"I would highly recommend anyone who has the opportunity to undertake a GA at UWS to grab it with both hands!"

Chris Kinnaird, Managing Director of Glasgow-based Mail Marketing Business Solutions, is currently benefiting from having Nicole undertaking a GA at UWS.

Chris said: *"I have been really impressed by the University's commitment to the scheme and how supportive they have been when we have engaged with them. There are a number of benefits we are already seeing as a result of Nicole undertaking this GA at UWS. She is bringing new skills to bear in her day-to-day routine on an increasingly frequent basis, but for me perhaps the most interesting benefit has been that her involvement in the GA programme has resulted in us all questioning and re-evaluating our current working practices and methodologies. I would highly recommend and encourage other businesses to participate in GAs."*

Contact Details

For individuals and businesses who wish to find out more about the BSc (Hons) IT: Software Development Graduate Apprenticeship, please contact our GA team at apprenticeships@uws.ac.uk

Alternatively contact the project or academic leads directly:

Fiona Kennedy

Graduate Apprenticeship Project Manager

E: Fiona.Kennedy@uws.ac.uk

T: +44(0) 0141 849 4346

Dr. James Riordan

Programme Leader BSc (Hons) IT: Software Development

School of Computing, Engineering and Physical Sciences

E: james.riordan@uws.ac.uk

T: +44(0) 1698 283100 Ext 8372





apprenticeships@uws.ac.uk

www.uws.ac.uk/GAs

[facebook /UniWestofScotland](https://www.facebook.com/UniWestofScotland)

[twitter /UniWestScotland](https://twitter.com/UniWestScotland)

**DREAMING,
BELIEVING,
ACHIEVING**
A 21ST CENTURY UNIVERSITY

Skills
Development
Scotland



European Union



gov.scot

EUROPE & SCOTLAND

European Social Fund

Investing in a Smart, Sustainable and Inclusive Future