Faculty of Computing, Engineering and the Built Environment

BIRMINGHAM CITY University

Computer Science
BSc (Hons)

COURSE FACTS

Faculty	Computing, Engineering and the Built Environment
School	Computing, Telecommunications and Networks
Application	Apply through UCAS. Institution code B25, Course code G401
Location	City Centre Campus, Millennium Point
Duration	Full-time: three years, sandwich: four years

KEY FACTS

- The content covered on the course is unique, combining the traditional Computer Science skills that employers want with modern growth areas such as usability engineering, mobile development, web programming and computer networking.
- You will have the opportunity to take professional qualifications alongside your course and to gain industry-standard qualifications that employers recognise and value.
- Our graduates have gone on to work for top companies including IBM and Capgemini.
- We have a strong working partnerships with both the Linux Professional Institute and the Oracle Academy, giving you access to cutting edge industry knowledge.

WHY CHOOSE US?

- Our School of Computing, Telecommunications and Networks is internationally recognised for teaching quality, research and extensive industry partnerships.
- You will be based at Millennium Point, a landmark building in central Birmingham which forms part of the City Centre Campus currently mid-way through a £260 million investment plan. You'll have access to state-of-the-art well equipped laboratories for programming and networking.
- We are established as one of the leading academies for Apple, Microsoft and Cisco Systems.
- The course is supported through the activities of the Innovations in Computing Education research group, designed to keep teaching and assessment updated to match international trends.
- You will have the opportunity to take a sandwich placement year, supported by our placements office and teaching of modern professional practice and provides paid work experience to enhance your CV.
- Our strong links with companies like SAS, SAP, Xbox, Samsung, Intel and NEC keep your course relevant, real-life and respected by employers.

COURSE OVERVIEW

This course will provide you with an updated interpretation of the traditional Computer Science areas of study, focusing on practical hands-on experience of software development. This is all supported by suitable theoretical and mathematical underpinnings.

You will leave the course with experience with modern software development tools and paradigms, including software usability, mobile software and web development.

www.bcu.ac.uk/ctn

cisco Networking Academy

YEAR 1					
IT Professionalism 15 Credits	Data Analysis 15 Credits	Web Technologies 15 Credits	Open Source Systems 15 Credits	Computer and Network Fundamentals 30 Credits	Software Development 30 Credits

YEAR 2					
Research and Professional Practice 15 Credits	Discrete Computing and Algorithms 15 Credits	Network Management 15 Credits	Software Design 15 Credits	Enterprise Databases: Design and Implementation 30 Credits	Advanced Software Development 30 Credits

YEAR 3					
Artificial Intelligence and Machine Learning 15 Credits	Formal Methods 15 Credits	Usability Engineering 15 Credits	Functional Programming 15 Credits	Mobile and Web Technology 30 Credits	Individual Project 30 Credits

COURSE STRUCTURE

In year 1, students take modules designed to ensure that they all have a sufficient technical underpinning for the modules in years 2 and 3. The focus is on introductory programming, covering a variety of languages, web design and web development, computer hardware and computer networking skills, the role of open source software for the computing professional, and mathematical, statistical and logical skills.

In year 2, students advance the skills in software development, computational logic and mathematics from year 1. They also develop skills in enterprise databases, software design and network management.

In year 3, students develop advanced technical skills, particularly applying their programming skills to the area of mobile software and the correct specification of software. Students explore alternative programming paradigms, developing skills in functional programming. The area of usability engineering sees students looking at how software can be made intuitive for users. Skills in artificial intelligence and machine learning are developed.

ASSESSMENT

A range of assessment methods are used throughout the course including continuous assessment, practical in-class tests, examinations, laboratory exercises and project work.

ENTRY REQUIREMENTS

- 280 points. Minimum of two six-unit or one 12-unit A-Level (GCE or VCE)
- Pass National Diploma with Merit Merit Distinction
- Advanced Diplomas are accepted
- AGNVQ overall Merit and GCSE Maths grade C
- Irish: 280 points in ILC, Scot: 280pts from four Highers, IB: 30pts

FURTHER STUDY

The University has a range of either taught (MSc) or research (MPhil and PhD) postgraduate programmes. Details can be found on the postgraduate section of the website.

EMPLOYABILITY

Typical graduates from the school have moved into professional careers with both large multi-national companies, and also small entrepreneurial software start-up businesses within the Computing industry. Recent graduate jobs have included software design and software development, working for desktop software companies, mobile software producers and web software creators.

Other areas within which students have become employed include database development, web site design, technical support and computing consultancy.

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