Computer Science
PgCert/PgDip/MSc

BIRMINGHAM CITY University

Faculty of
Technology, Engineering and the Environment

COURSE FACTS

School	Computing, Telecommunications and Networks
Application	For details on how to make an application visit **www.bcu.ac.uk/student-info/how-to-apply**
Location	City Centre Campus, Millennium Point
Duration	Full-time: 13 months (January start 17 months), part-time: 30 months

KEY FACTS

- This course provides a robust grounding in key principles and tools, together with a strong focus on industrial applications, and will build a foundation for either further research or a career applying leading edge technology in industry.
- A key aspect of the programme philosophy is that the learning experience integrates use of major commercial software - Cisco (networks and distributed systems) and SAS (data mining and business intelligence) - with investigation of the wider theoretical context.

WHY CHOOSE US?

- Our School of Computing, Telecommunications and Networks is recognised both nationally and internationally for the high quality of our teaching, research and extensive industry partnerships. We are established as one of the leading academies for Apple, Microsoft and Cisco Systems.
- We deliver computing-related courses designed to equip you with the skills demanded by industries and employers. These include computer science, software engineering, information systems, e-business technologies, electronics, embedded systems, web technologies, telecommunications, networking and computer forensics.

COURSE OVERVIEW

This course will provide you with the opportunity to gain in-depth knowledge and skills in a range of advanced topics in computer science. It has been designed for graduates in computer science or related areas, who wish to broaden and deepen their knowledge and learn about developments at the forefront of the subject.

A central theme of the programme is the development of mobile and distributed systems for innovative applications.

You will explore advanced issues in software development, web science and data mining, and learn about the skills needed to become a successful entrepreneur in the IT sector.

The programme has two intakes, in September and January, and may be studied in full or part-time mode. The full time duration is 13 months (17 months for January start).

www.bcu.ac.uk/tee/ctn

CISCO Networking Academy

SEMESTER 1			
Postgraduate Certificate - 60 Credits			
Professional Skills and Research 15 Credits	**Advanced Software Engineering** 15 Credits	**Network Technology** 15 Credits	**Web Science** 15 Credits

SEMESTER 2			
Postgraduate Diploma - 120 Credits			
Technology Entrepreneurship 15 Credits	**Service Architecture** 15 Credits	**Mobile Software Development** 15 Credits	**Data Systems Integration** 15 Credits

SEMESTER 3
MSc Award - 180 Credits
Master's Project 60 Credits

COURSE STRUCTURE

Professional Skills and Research Methods
Introduces research methods, academic writing and project management skills to support the Master's project. It also covers professional skills, including consultancy.

Advanced Software Engineering
Reinforces the need for a clear process and strategy for developing industrial strength software systems. It has a strong practical focus and is delivered mainly through case studies.

Network Technology
Introduces networking concepts, using a top-down, theoretical, and integrated approach to network applications, network protocols and future network technologies.

Web Science
Topics include web 2.0 and 3.0, social web, the semantic web, ontology, web governance and policy; and cyber-security.

Technology Entrepreneurship
Explores the skills, knowledge and attributes required for becoming a successful entrepreneur in IT and identifying e-business opportunities.

Service Architecture
Topics include service architecture models and designs, protocols used in service architectures, and software frameworks for implementing service architectures.

Mobile Software Development
This module is concerned with the theoretical and practical elements of Mobile Computing. Topics covered include the client technologies: J2ME, Google Android, iPhone and Symbian.

Data Systems Integration
Tools and techniques for data mining and data warehousing, employed to create 'business intelligence'. SAS software is used.

ASSESSMENT

Assessment is through a combination of coursework, examinations, presentations, practical assignments, vivas, online activities and project work. Emphasis is placed on the development of a broad range of relevant skills. Assessment methods will vary according to the particular skills being assessed.

ENTRY REQUIREMENTS

You will normally be expected to hold at least a Second Class Honours degree or equivalent in an appropriate discipline. You will also be considered for entry if you do not have the standard entry qualifications, but can provide evidence of necessary knowledge and skills to successfully enter and complete the course.

EMPLOYABILITY

You will be equipped for careers requiring high level skills in distributed and mobile systems, web development, software engineering and a range of associated areas in computer science. You may become a consultant, or a researcher in a university or commercial research laboratory. The course also develops a wide spectrum of transferable skills to take into a general business career.

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