BUSINESS INFORMATION SYSTEMS

Our Business Information Systems programmes develop professionals who understand business challenges, and conceive and manage solutions which are increasingly ICT-dependent. By examining issues such as security, privacy and ethics in information systems, you will enhance your understanding of societal use of information systems.

All of our Masters teaching is informed by links to industry and supported by up-to-the-minute research conducted by in-house research teams active in the areas like Data and Knowledge Management, Health and Social Care Modelling, Computational Intelligence, Parallel Computing, Distributed and Intelligent Systems, Semantic Computing, and Computer Vision and Imaging.

Our programmes are accredited by BCS – The Chartered Institute for IT as meeting the requirements for Chartered IT Professional (CITP) Further Learning and partially meeting the requirements for Chartered Engineer (CEng).
Recent technological advances decreasing hardware costs and the ‘Internet of things’ have led to a rapid explosion in the amount of data generated in a variety of domains, including data-driven science, telecommunications, social media, large-scale e-commerce, medical records and e-health. Big data refers to the ability of exploiting these massive amounts of extremely heterogeneous in structure and content data that are routinely generated at an unprecedented scale from an ever-expanding variety of data sources.

Business and industry used their big data to extract a better understanding of customers’ needs and behaviour, to develop targeted new products and to cut operational costs. The competitive advantages and productivity gains that big data brought led to a great number of big data projects and a shortage of people with the required skills.

This course has been designed to build your knowledge and understanding of big data systems architectures and to equip you with the range of highly marketable, hands-on skills employed by the core technologies utilised in big data projects.

Course content
The course addresses technologies, advanced theories and techniques, along with their application, implementation and integration with legacy systems. You will analyse new demands and the application of technologies in the management of data and information resources, and examine big data technologies shaping the way data is now stored and utilised including the use of cloud stored massive datasets, distributed systems of an enterprise and how data utilisation can change and improve business processes.

Teaching approaches include lectures, tutorials, seminars and practical/hands-on sessions. You will also learn through extensive course work, class presentations, group work, and the use of a range of industry standard software such as R, Python, Hadoop, MySQL, and Oracle.

For full and most up-to-date information, see course web page: westminster.ac.uk/big-data-technologies-msc

This course addresses the need to propel information-gathering and data organisation, and exploit potential information and knowledge hidden in routinely collected data to improve decision-making. The course, which builds on the strength of two successful courses on data mining and on decision sciences, is more technology-focused, and stretches the data mining and decision sciences theme to the broader agenda of business intelligence.

You will focus on developing solutions to real-world problems associated with the changing nature of IT infrastructure and increasing volumes of data, through the use of applications and case studies, while gaining a deep appreciation of the underlying models and techniques. You will also gain a greater understanding of the impact technological advances have on nature and practices adopted within the business intelligence and analytics practices, and know how to adapt to these changes.

Course content
Embedded into the course are two key themes. The first will help you to develop your skills in the use and application of various technologies, architectures, techniques, tools and methods. These include warehousing and data mining, distributed data management, and the technologies, architectures, and appropriate middleware and infrastructures supporting application layers. The second theme will enhance your knowledge of algorithms and the quantitative techniques suitable for analysing and mining data and developing decision models in a broad range of application areas.

The project consolidates the taught subjects covered, while giving you the opportunity to pursue indepth study in your chosen area.

Teaching approaches include lectures, tutorials, seminars and practical sessions. You will also learn through extensive course work, class presentations, group research work, and the use of a range of industry standard software such as R, Python, Simul8, Palisade Decision Tools, Hadoop and Oracle.

For full and most up-to-date information, see course web page: westminster.ac.uk/business-intelligence-and-analytics-msc

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