

Masters in Computing (with a Major)

MCM Programme: One year, Full-time (DC836) / Two years, Part-time (DC837)

The **MSc in Computing** (MCM) offers a **choice of Majors**, and is designed to equip graduates with a range of state-of-the-art skills to enable them to design and develop high-quality software systems that **deliver solutions** to individuals, business and the economy.

Aims and Objectives: The course is structured to include eight taught modules, each of which has a high continual assessment element. Mathematical and programming skills are used throughout the degree and students are encouraged to analyse and develop novel solutions. The strong practical focus of the programme culminates in a Practicum project, carried out over the summer months. Typically, students will investigate, research and develop a prototype software system in their **Major** area that targets an existing problem. Practicums are undertaken on an individual basis.

Students may also be sponsored by **external clients** to solve existing issues based on an industrial collaboration. Typically, Practicum projects are in essence research projects. They commence with a feasibility study, followed by the creation of a project plan and the development of a software solution based on rigorous theoretical analysis.

In the course of the programme, students will develop **employment-enhancing skills** across a number of key areas. These include:

- Critical analysis of contemporary computing issues
- Fundamental knowledge of the foundations of their Major discipline
- Improvement of their knowledge of operating systems and networks
- Development of strong team-based skills, developed through significant project work during the course
- Enhanced communication skills through scheduled presentations to lecturers and peers.



Four Majors

Major 1 – Cloud Computing

DCU's technology major in Cloud Computing provides comprehensive knowledge and skills in international priority areas such as cloud architectures, cloud technologies, concurrent programming and networks. The Major gives students the flexibility to select additional options and to specialise in their chosen area by completing a substantial technical cloud research project. IBM is the DCU Strategic Enterprise Partner for the MCM (Cloud) programme.

Major 2 – Data Analytics

This popular Major, delivered in conjunction with leading industry players, builds on the School of Computing's long-term expertise, as well as benefiting from its participation in INSIGHT, the SFI-funded Research Centre for Data Analytics. Technologies such as the internet, sensor nets, social media and cloud computing generate huge datasets, containing gems of knowledge that can be used to improve processes and generate value. This Major provides students with in-depth understanding of statistical methods, techniques and tools, needed to explore extensive raw data and to extract meaningful information.

Major 3 – Software Engineering

This Major aims to equip software engineering professionals with additional cutting-edge skills to produce high-quality software and systems that deliver value to business and the economy. Programme participants may also broaden their knowledge-base by selecting options which enhance appreciation of latest ideas and enable them to advance and diversify their career in a fast-changing industry.



Major 4 – Security and Forensic Computing

The well-established Security and Forensic Computing Masters programme is retained in full, but is now offered as a Major under the Masters in Computing (MCM). In recent years, technologically-competent criminals have increasingly exploited new technologies in the commission of crime. Investigation of such crime has led to the emergence of a key specialisation, termed “forensic computing”, which involves detection, storage, analysis and exhibition of digital evidence in a legally admissible manner. This Major equips graduates to carry out sophisticated technical work while also exploring effective methods to assist in the prevention of such crime through Secure Programming and Network & Application Security.

Other Masters/Graduate Programmes in the School of Computing

MSc in Electronic Commerce: One year, Full-time (DC821)

Featuring a common core curriculum with two distinct streams, a business stream and a technical stream, the MSc in Electronic Commerce programme is designed to produce excellent e-business technologists, managers and entrepreneurs, who are in great demand by the information economy.

Aims and Objectives: The course is designed to provide students on both the technical and business streams with a unique combination of technological and business skills of relevance today. A strong collaborative ethos across the business and technical tracks is fostered through the extensive shared curriculum, which includes shared modules, business/technical focused modules and a shared Practicum (an applied dissertation) in which teams comprising both technical and business-focused students work together to bring a new business idea to life. The program also includes highly interactive teaching modes and overall entrepreneurial orientation, which sets the graduates apart from their peers. As a result, graduates of this programme are equipped with the multi-faceted skills required to operate successfully in the exciting and dynamic world of e-commerce and digital business, either as business leaders or technical experts.

APPLICATIONS

To apply for a taught postgraduate programme, visit the Postgraduate Application Centre (PAC) at www.pac.ie/dcu using the relevant PAC codes available on the DCU website.

FEES

The latest information on fees is available at this website.
www.dcu.ie/fees

SCHOLARSHIPS

For up-to-date information on scholarship opportunities for taught Masters programmes, please visit:
www.dcu.ie/graduatestudies/scholarships-opportunities

FURTHER INFORMATION

For the most up-to-date information on programmes, visit
www.computing.dcu.ie/postgraduate/postgraduate-courses.

For individual enquiries, please email:
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