



Master of Science Cloud Computing

“Cloud is about how you do computing, not where you do computing.” – Paul Maritz, VMware CEO

ONLINE

This programme is delivered exclusively online.

Contact us

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Cloud Computing refers to the practice of using a network of remote servers hosted on the Internet to store, manage, and process data, rather than a local server or a personal computer.

The MSc in Cloud Computing programme was designed to equip graduates with the detailed knowledge, specialist architectural and technical skills required to design and implement cloud based solutions, and services.

The programme content seeks to reflect current and likely future practice in cloud planning and management, the design and management of virtual environments, data analytics, the

consolidation of data centres, security techniques in multi-tenant virtualised environments and related areas that contribute to the building of both private and public cloud environments.

MTU Cork hosts its own private cloud infrastructure to support the delivery of modules giving students 24/7 access to state-of-the-art cloud computing labs. All lectures are delivered online by academic and industry experts.



MTU

Ollscoil Teicneolaíochta na Mumhan
Munster Technological University

Department of Computer Science

The Department of Computer Science at MTU Cork is one of the largest Computer Science departments in Ireland. We offer a range of modern undergraduate programmes and a host of opportunities at master's degree and at PhD level.

Our industry engaged programmes match the needs of our economy and have an excellent reputation for producing the most employable computer science graduates in the region. These highly skilled graduates are in huge demand and contribute significantly to the development of the region. As technology plays a greater role in our society the growth in the demand for these graduates will continue year after year.

Background

Cloud computing is a type of on demand sharing of Internet-based computer resources and data. It represents an era in computing where companies can outsource their IT functions enabling greater productivity, IT flexibility, performance and agility. This model of computing allows IT departments to focus on strategic initiatives and innovation rather than on infrastructure maintenance and support.

Cloud Computing (MSc)

This innovative master's programme was developed in conjunction with key industry stakeholders, such as EMC, VMWare and many other companies. The programme offers the opportunity to learn about cloud in the cloud. MTU Cork hosts its own private cloud infrastructure to support the delivery of modules. Lectures are delivered online by industry and academic experts and are recorded for subsequent playback.

Designed to address the widening practical and theoretical skills shortage in cloud computing the programme delivers content that follows best practice in industry. It has a strong applied emphasis which is supported by in-depth theoretical knowledge. The continuing trend of skills shortage in this area is predicted to increase the global demand for cloud computing graduates.

Graduates may also wish to continue to PhD level in this exciting field of study.

Who Should Apply?

Are you interested in a career in Cloud Computing? Do you hold an honours degree in Computer Science, Engineering or in a cognate discipline? If so, this master's degree is the right choice for you.

Programme Structure

The programme places significant emphasis on student learning by doing. It adopts a practical, hands-on, approach to learning, where all modules are fully assessed using continuous assessment methods. There are no formal end of semester written examinations and this ensures that you will learn by doing from the first module to the last.

This 60-credit part-time online programme is delivered exclusively online over 24-months. Each semester has a number of mandatory modules and a choice of electives as outlined below.

| Semester 1 (Autumn - Year 1) | Type | Credits |
|----------------------------------|-----------|---------|
| Virtual Environments | Mandatory | 5 |
| Cloud Strategy & Optimisation | Mandatory | 5 |
| Cloud Automation & Orchestration | Mandatory | 5 |

| Semester 2 (Spring - Year 1) | Type | Credits |
|------------------------------|------------|---------|
| Next Generation Networks | Mandatory | 5 |
| Research Practice & Ethics | Mandatory | 5 |
| Fraud & Anomaly Detection | Elective 1 | 5 |
| Free Choice Module (Various) | Elective 2 | 5 |

| Semester 3 (Autumn - Year 2) | Type | Credits |
|-------------------------------|-----------|---------|
| Cloud Storage Infrastructures | Mandatory | 5 |
| Network Management | Elective | 5 |
| Scalable Microservices | Elective | 5 |
| Distributed Ledger Technology | Elective | 5 |

| Semester 4 (Spring - Year 2) | Type | Credits |
|------------------------------|-----------|---------|
| Research Project | Mandatory | 20 |

Detailed module descriptors can be viewed at <https://cs.cit.ie/cloud-online-schedule>.

You can apply for the programme online at <https://cs.cit.ie/cloud>.

Recognition of Prior Learning information is available at <https://www.cit.ie/rpl>.