

MASTER OF SCIENCE IN CLOUD COMPUTING

FACTFILE

Application
Apply online at www.ncirl.ie

Start Date
Sept 2023



Part-time Schedule

Duration

2 years; 4 semesters with a final research project

Delivery

Blended - Livestream with some on-campus stream classes, scheduled in advance. See page 4 for more information.

Indicative Timetable

Two evenings per week 18.00 - 22.00 and some Saturdays

Fees

€4,700 per annum
€9,400 total fee
(Fees revised annually)

Full-time Schedule

Duration

1 year; 3 semesters with a final research project

Delivery

Campus – Classes will take place face-to-face on-campus. See page 4 for more information.

Indicative Timetable

Students need to be available 09.00-18.00 Mon – Fri. (Class days and times vary)

EU Fee

€6,800 total fee
(EU/Ireland applicants)
(Fees revised annually)

Course Description

This programme aims to fulfil the ICT sector-specific needs as reported in Ireland's National Skills Strategy 2025. By combining technical skills with innovation principles, it effectively delivers core technology skills in cloud software development, fog/edge computing, DevOps, security, and data governance.

Students will gain experience with the latest ethical design principles, models, and technologies via our state-of-the-art Cloud Competency Centre. The course is delivered by faculty and industry practitioners with proven expertise in cloud computing.

Who is the course for?

This programme will appeal to computer science graduates, ICT industry practitioners, system administrators, and those with an interest in gaining practical experience in cloud computing.

As a graduate of this programme, you will be able to:

- Conduct independent research and analysis in the field of cloud computing.
- Formulate and implement a novel research idea using the latest industry practices.
- Demonstrate expert knowledge of application development, systems programming, parallel and distributed computing, and the tools, techniques and technologies of cloud computing utilised in both technical and business contexts.
- Critically assess, evaluate, and communicate business and technical strategies for cloud computing.
- Develop and implement effective business and technical solutions for cloud computing.
- Critically assess and evaluate security, privacy, and ethical issues associated with the storage, transfer, and processing of data on private and public cloud infrastructures.

Award and Progression

The Master of Science in Cloud Computing is awarded by QQI at level 9 on the National Framework of Qualifications. Students who successfully complete this course may progress to a major award at level 10 on the NFQ. Students may also elect to exit early with the Postgraduate Diploma in Science in Cloud Computing at level 9 on the NFQ.

Entry Requirements

An honours (level 8) primary degree in a computing discipline with a 2.2 award or higher. Students in their final year of undergraduate study can be admitted on the condition that their degrees are awarded before they enrol at NCI. The college operates a Recognition of Prior Experiential Learning (RPEL) scheme, i.e., applicants who do not meet the normal academic requirements may be considered based on relevant work and other experience. This may be assessed using a portfolio of learning, demonstration of work produced, and an interview. Non-English-speaking applicants must demonstrate fluency in English evidenced by an IELTS academic score of at least 6.0 or equivalent.



Laptop Requirement

This programme has a BYOD (Bring Your Own Device) policy. Specifically, students are expected to successfully participate in lectures, laboratories and projects using a portable computer (laptop/notebook) with a substantial hardware configuration. The minimal suitable configuration is 8GB of RAM (16GB are recommended); a modern 64-bit x86 multicore processor (Intel i5 or superior); 250+ GB of available space in hard disk; WiFi card; and a recent version of Ubuntu, macOS, or Windows.

It is the responsibility of each student to ensure their computer is functioning correctly and that they have full administrator rights. NCI IT cannot provide support for these personal devices. Some students may be able to avail of the Student Laptop Loan Scheme, subject to eligibility. See page 85 for more information.

COURSE CONTENT YEAR 1 - 2

Core Modules

- Cloud Architectures
- Cloud Platform Programming
- Cloud DevOpsSec
- Scalable Cloud Programming
- Research in Computing
- Fog and Edge Computing
- Research Project
- Data Governance, Compliance and Ethics
- Blockchain Concepts
- Cloud Machine Learning

Assessment

The course will be assessed with a blend of project work and exams. This varies between modules but typically assessment is 50% continuous assessment and 50% exam.

Please note that in some instances exams may take place in the daytime, evenings and at weekends.