FULLY ONLINE

HIGHER DIPLOMA IN SCIENCE
COMPUTING (WITH SPECIALISATIONS)

FACTFILE

Application: Apply online at **www.ncirl.ie**

Part-time Schedule

Start Date
Sept 2026

Duration
Part-Time (1-Year)
3 semesters delivered
over 1 calendar year

Delivery
Fully online delivery

Indicative Timetable
Three evenings per
week, 18.00 - 22.00

Fees
€4,900 total fee
(Fees revised annually)

Full-time Schedule

Start Date
Sept 2026

Duration
Full-Time (1-Year)
3 semesters delivered
over 1 calendar year

Delivery
Campus: Classes
will take place
face-to-face on campus

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

EU Fee
€4,900 total fee
(Fees revised annually)

€ Spread the cost with
our direct debit plan

Course Description

The course teaches students computing fundamentals, complemented with detailed knowledge, problem-solving and specialised technical skills required for analysing, designing and developing technical software solutions. The course offers specialisations in the second semester to choose from. The stream element is a focused set of modules to provide learners with an understanding of the industry entry standard for the chosen specialisation.

The streams/specialisations (subject to availability) are: Software Development, Cybersecurity, Artificial Intelligence and Machine Learning, Blockchain and Web Development.

The **Software Development** stream provides learners with an understanding of, problem-solving and technical skills in the area of software development using a modern programming language, such as Java, and application development framework(s).

The **Cybersecurity** stream provides detailed knowledge, problem-solving and specialised technical skills required for application security development, forensics investigation, application/service vulnerability detection and incident detection.

The **Artificial Intelligence** and **Machine Learning** stream provides learners with an understanding of development of AI-powered products by leveraging expertise in machine learning and computational methods.

The **Blockchain** stream explores the development of blockchain applications and their implications in other fields by providing a practical understanding of blockchain application development, blockchain foundations and distributed ledger systems.

The **Web Development** stream provides learners technical and development skills in core topics of web programming covering topics such as advanced client-side development, cloud application development and DevOpsSec

Who is the course for?

This course will appeal to graduates with a level 8 degree from different backgrounds who would wish to change their non-ICT qualification into the computer science field through a level 8 award in computing.

It will also appeal to technical and non-technical professionals who would like to upgrade their skills in one of the specialisations provided by this course, helping them to progress faster in their employment or to apply the knowledge in their current role.

Award and Progression

The Higher Diploma in Science in Computing is awarded by QQI at level 8 on the National Framework of Qualifications (NFQ). Students who successfully complete this course may be eligible to progress to a major award at level 9 on the NFQ.

As graduates from other disciplines and with work experience, provides learners with an understanding of experiences that they bring with them on to the programme and into a new subject domain. Therefore, they are eligible for a number of roles. They could work in positions that are in-line with their skills but in the ICT sector or apply ICT knowledge gained through this programme to their current role.

Graduates may also avail of entry-level ICT-related positions, depending on the selected stream, such as software developer; DevOps engineer; application developer; entry-level cybersecurity engineer; cybersecurity tester; computer forensics examiner; software tester; front-end developer, web developer.

COURSE CONTENT

Core Modules
- Software Development
- Object Oriented Software Engineering
- Introduction to Databases
- Web Design and Client-Side Scripting
- Computer Architecture, Operating Systems and Networks
- Project

AND choose one of the following specialist streams:

Software Development Stream*
- Data Structures
- Algorithms and Advanced Programming
- Distributed Systems

AI/ML Stream
- Artificial Intelligence
- Machine Learning Fundamentals
- Statistics

Note: Prospective students are required to specify the specialisation they would like to follow when they apply for a place within the Higher Diploma in Science in Computing programme.

Note: Streams/specialisations will run subject to student numbers.

*Full-time students will only take the Software Development Stream.

Entry Requirements

A level 8 degree or its equivalent in a non-cognate discipline. Non-standard applications will be also considered on an individual basis. The College operates a Recognition of Prior Experiential Learning (RPEL) scheme meaning applicants who do not meet the normal academic requirements may be considered based on extensive relevant work and other experience. This may be assessed using a portfolio of learning, demonstration of work produced, interview, and assessment. Non-English-speaking applicants must demonstrate fluency in English evidenced by an IELTS academic score of at least 6.0 or equivalent.

Assessment

The course will be assessed with a blend of continuous assessments and/or project work and exams. Please note that in some instances exams may take place in the daytime, evenings and at weekends.

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 laptop computer with a substantial hardware configuration. A suitable configuration is 8GB of RAM (16GB are recommended); a modern 64-bit x86 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 the student to ensure their laptop is functioning correctly and that they have full administrator rights to the machine. NCI IT does not provide support for personal devices. Some students may be able to avail of the Student Laptop Loan Scheme, subject to eligibility. See page 83 for more information.