

# Higher Diploma in Science in Computing

## (Online Directed E-Learning delivery) (With specialisation in Software Development)

The Software Development stream provides learners detailed knowledge, problem-solving and technical skills in the area of software development using a modern programming language, such as Java, and application development framework(s). 2 Year or 1 Year options available.

### Online Directed E-Learning Delivery (2 Year)

This is an online learning course that features Directed E-Learning activities such as live online classroom sessions and tutorials/videos on the College's e-learning system. This allows for online class time to be interactive, practical, and focused, with theory-based content being covered outside of class time with self-paced tutorials/videos, and practical content being covered in live online classes with support from lecturers and lab assistants.

**Location:** Online

**Duration:** September to December 2024, January to May 2025, September to December 2025, January to May 2026.

**Start Date:** The course is expected to start in the week commencing 23rd September.

**Applications:** Apply online at [www.springboardcourses.ie](http://www.springboardcourses.ie)

**Indicative Schedule:** Monday and Wednesday 18.00 - 22.00

**Fees:** A student contribution fee of €540 is applicable if you are in employment. No fees applicable if you are unemployed. The scheme does not cover any allowance for books and materials.

Career Bridge classes will be delivered one day per week in Semester 1 from 17.00 to 18.00. Day to be confirmed

There will be up to five hours self-directed learning through the college e-learning system weekly. These will not show on your timetable.

If a student contribution fee is applicable this must be paid in full no later than Friday, 15th November 2024.

### Online Delivery (1 Year)

Online classes will be live online with support from lecturers and lab assistants.

**Location:** Online

**Duration:** September to December 2024, January to May 2025 and May to August 2025.

**Start Date:** The course is expected to start in the week commencing 23rd September

**Applications:** Apply online at [www.springboardcourses.ie](http://www.springboardcourses.ie)

**Indicative Schedule:** Monday, Wednesday and Friday 18.00 - 22.00 and a number of Saturdays 09.00 - 18.00.

**Fees:** A student contribution fee of €540 is applicable if you are in employment. No fees applicable if you are unemployed. The scheme does not cover any allowance for books and materials.

**Career Bridge classes will be delivered one day per week in Semester 1 from 17.00 to 18.00. Day to be confirmed.**

If a student contribution fee is applicable this must be paid in full no later than Friday, 15th November 2024.

### Course Description

This course will appeal to non-technical professionals or graduates with a level 8 degree from different backgrounds who would like to upgrade their skills in the computing domain, helping them to progress faster in their employment or to apply the gained knowledge in their current role.

The course teaches students the computing fundamentals, complemented with detailed knowledge, problem-solving and specialised technical skills required for designing and developing technical software solutions.

The course offers a specialisation in Software Development, which brings the participants quickly to the graduate standard in this area. This course is designed with flexibility in mind, allowing learners to work through bespoke video content and guided tutorials the week before class, then polishing their knowledge with live online practical classes. Self-paced content is broken into small manageable chunks, and live sessions are designed for live questions and answers based around industry issues and practical problems.

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

Depending on your delivery choice you will take Career Bridge as either classroom or blended online. It will help you to enhance your employability skills and improve your overall career prospects. Students will be assisted in identifying relevant employment or a placement during or within three months of completing their course.

Graduates may avail of many entry-level ICT-related jobs, such as software developer, web development engineer and software engineer.

**Note:** The 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. It is not possible to transfer course streams post registration.

### Career Prospects

This course is designed to meet the needs of the IT sector and secure future employment for graduates. Companies who hired 2022 students include: Coinmaster (Customer Support Engineer), Deloitte (.net developer), Deloitte (Software Developer), Workday (Network Engineer), Workday (Quality Assurance Engineer), Datalex (Full Stack Software Engineer), Digitsoft (Software Engineer), Docusign (TS Engineer), AIB (Technology analyst), Amazon (Cloud Support Associate), Revenue (Data Analyst).

### Who is the course for?

This course will typically 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. Nonetheless, it is noted that the course is technical in nature and will entail a significant amount of independent study. Given the content and the timescale you will need to have a strong commitment to the course and a willingness to fully engage with the technical content.

### Academic 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 entry requirements may be considered based on extensive relevant work and other experience. This may be assessed through a portfolio of learning, demonstration of work produced, interview and assessment.

Non-English speaking applicants must demonstrate fluency in the English language as demonstrated by an IELTS academic score of at least 6.0

or equivalent. [English Language Requirements | National College of Ireland \(ncirl.ie\)](#).

### Laptop Requirements

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

This course requires internet access you will be required to ensure you have sufficient broadband speed and reliable connectivity from your place of study.

**Free Laptop loan for eligible students on this course:** Students who are eligible for HEA funding for this course may also be eligible for a free laptop provided on a loan basis for the duration of the programme. This will be a suitable specification machine for completion of the programme but must be returned once you have finished your course. Overall numbers of laptops available are subject to maximum numbers and no other alternatives can be offered.

Check <https://www.ncirl.ie/Laptop-Loan-Scheme> for updates on the next opening date for applications.

### Assessment

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

### Award and Progression

For all streams regardless of specialisation your final award will be a Higher Diploma in Science in Computing as 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.

### Software Development specialisation (Online Delivery) (1 Year)

#### Semester 1

- Software Development
- Object Oriented Software Engineering
- Introduction to Databases
- Web Design and Client Side Scripting
- Career Bridge

#### Semester 2

- Computer Architecture
- Operating Systems and Networks
- Data Structures
- Algorithms and Advanced Programming
- Distributed Systems

#### Semester 3

- Project

### Software Development specialisation (Online Delivery) (2 Years)

#### Year 1 Semester 1

- Software Development
- Web Design and Client Side Scripting
- Career Bridge

#### Year 1 Semester 2

- Object Oriented Software Engineering
- Introduction to Databases
- Data Structures

#### Year 2 Semester 1

- Computer Architecture
- Operating Systems and Networks
- Algorithms and Advanced Programming
- Distributed Systems

#### Year 2 Semester 2

- Project

Your Careers Advisor will support you in identifying relevant employment during the course or within three months following completion of the course.

**Note:** The 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.