Higher Diploma in Science in Computing

(With specialisation in Artificial Intelligence / Machine Learning) (Online Delivery) (1 Year)

This is an online course which will be delivered fully online. Online classes will be live online and will cover theoretical and practical content through interactive classes and support from lecturers and lab assistants.

Location: Online

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

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

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

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

Applications: Apply online at www.springboardcourses.ie

Fees: A student contribution fee of €560 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.

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

Course Description

The course teaches students the computing fundamentals, complemented with detailed knowledge, problem-solving and specialised technical skills required for analysing, designing and developing technical software solutions. The second semester consists of a focused set of modules that are specific to the Artificial Intelligence and Machine Learning specialisation. The course aims to impart awareness and appreciation of relevant topics in the area of specialisation.

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

Career Prospects

This course is designed to meet the needs of the IT sector and secure future employment for graduates. Over the past two years, the companies have hired graduates from the Higher Diploma in Science in Computing include: Accenture (Junior Software Engineer), Deloitte (IT Engineer), Mastercard (Software Tester), Guidewire (Java Application Support Engineer), General Motors (Software Development Apprentice), DocuSign (Associate Solutions Consultant).

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. 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 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 assessments and/or project work and exams. Please note that in some instances exams may take place in the daytime, evenings and at weekends.

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, learners will have life skills and experiences that they will bring with them on 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.

Artificial Intelligence and Machine Learning 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
- Artificial Intelligence
- Statistics

Semester 3
- Machine Learning Fundamentals
- 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.