

Postgraduate Diploma in Science in Artificial Intelligence

(Online Directed E-Learning delivery)

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.

Location: Online

Start Date: This course is expected to start in the week commencing 22nd September 2025.

Indicative Schedule: Tuesday and Thursday 18.00 - 22.00.

There will also be on average four hours self-paced learning per week on NCI's Learning Platform weekly. This will not appear on your timetable.

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

Duration: September to December 2025, January to May 2026 and May to August 2026.

Applications: Apply online at <https://springboardcourses.ie>

Fees: A student contribution fee of €700 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 14th of November 2025.

Course Description

This course aims to produce high-quality, technically competent, innovative graduates that will become leading practitioners in the field of artificial intelligence.

This course contains modules covering fundamental and specialised AI topics as well as topics related to operationalisation and application of AI to solve real-world problems. All students will gain a deeper understanding of the complete development lifecycle of AI software applications from requirements elicitation and analysis, implementation, decision making, evaluation, and documentation.

The course will be delivered using academic research, industry defined practical problems, and case studies. This approach will naturally provide a deeper knowledge of AI and create skills required in industry such as critical thinking, problem-solving, creative thinking, communication, teamwork, and research skills.

Upon completion of this course, graduates will be able to:

- Demonstrate expert knowledge of Engineering Artificial Intelligence systems, Machine Learning, Optimisation Techniques, and the tools, techniques and technologies of Artificial Intelligence utilised in real world contexts.
- Formulate, design, implement, and evaluate novel real-world solutions at the forefront of Artificial Intelligence using the latest industry practices and standards.

Career Prospects

Graduates of the 2023 Postgraduate Diploma in Science in Artificial Intelligence used the programme to build on their existing skills and transition into roles across the tech

industry, including Enterprise Solution Specialist (Microsoft), Enterprise Architecture Support (Primark), Data Analyst (Bank of Ireland), Business Data Analyst (DAA), Business Integrity Data Analyst (Google), AI/ML Data Analyst (Apple).

Award and Progression

The Postgraduate Diploma of Science in Artificial Intelligence is awarded by QQI at level 9 on the National Framework for Qualifications. Students who successfully complete this course may top up to the MSc in AI at National College of Ireland (This is not included under Springboard + - an additional fee would apply).

Entry Requirements

A minimum of a level 8 primary degree in Computing or a cognate area with a 2.2 award or higher or equivalent on the National Qualifications Framework in Computing or a Cognate area. Candidates are expected to have programming ability. Cognate area means a STEM (Science, Technology, Engineering, and Mathematics) degree that also taught programming/ application development related modules. An assessment and/ or interview may be conducted to ascertain suitability if necessary for candidates who do not meet the normal academic requirements.

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 relevant work and other experience. This may be assessed using a portfolio of learning, demonstration of work produced, and an interview. The programming ability of the applicant will also be assessed.

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. Visit <https://www.ncirl.ie/English-Language-Requirements-International> for more information.

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. It is the responsibility of each student to ensure their computer is functioning correctly and that they have full administrator rights.

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.

Visit <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 day-time, evenings and at weekends.

Course Content (Online Directed E-Learning Delivery) (1 Year)

Semester 1:

- Data Governance and Ethics
- Foundations of Artificial Intelligence
- Programming for Artificial Intelligence
- Career Bridge

Semester 2:

- Engineering and Evaluating Artificial Intelligence Systems
- Intelligent Agents and Process Automation
- Data Analytics for Artificial Intelligence

Semester 3:

- Emerging Artificial Intelligence Technologies and Sustainability
- Machine Learning
- Artificial Intelligence Driven Decision Making

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