

Technology  
Ireland  
ICT

Skillnet



# Certificate in Foundations of Artificial Intelligence

ONLINE • PART-TIME • NFQ LEVEL 8

[www.ictskillnet.ie](http://www.ictskillnet.ie)



# Unleash your unstoppable potential, with Technology Ireland ICT Skillnet



Technology is ever-changing. No matter what stage you are at in business or your career, there is always more to learn.

At Technology Ireland ICT Skillnet, our vision is to create **progressive futures**, helping organisations to **transform at scale** and individuals to **develop a competitive edge**, through the **power of learning**.

For almost two decades, Ireland's leading technology companies have trusted us to build the critical skills needed to thrive in a rapidly evolving market.

**Let us connect you to the infinite possibilities shaping the world of tomorrow.**

## Supercharged skills

Each of our programmes are designed, developed, and validated by specialists from academia and industry, working together, with a constant focus on:

**1** **Creating opportunity and momentum** for experienced professionals and those starting out or transitioning career.

**2** Delivering learning solutions in a way that **balances work and study**.

**3** Providing practical skills, along with the theoretical, allowing businesses to **navigate new frontiers in the world of tech**.



# 5,000+

companies supported

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# 12,000+

learners upskilled

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# 30+

professional programmes

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Online, blended, and  
in-company training supports

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Government-subsidised  
programme fees, up to 100%

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# Certificate in Foundations of Artificial Intelligence

## Your AI journey starts here.

### Ready to begin?

In today's business landscape, the integration of artificial intelligence (AI) has become imperative for sustained success. Almost all industries are witnessing a transformative shift towards AI-driven solutions, redefining operational paradigms and enhancing productivity. The demand for proficient AI practitioners is only on the rise.



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**This presents a crucial challenge to modern professionals to be able to comprehend the fundamental tenets of AI and identify the most appropriate applications for their business needs, to optimise business processes, build greater efficiencies and improve overall performance.**

Working in partnership with TU Dublin, Krisolis, and the Women in AI Ireland Chapter, we have developed the Online Certificate in Foundations of Artificial Intelligence (Level 8 NFQ) as a direct response to this challenge. The programme provides a comprehensive curriculum designed by industry experts, helping you to acquire a competitive edge in harnessing AI's potential for your business.

Join our Online Certificate in the Foundations of Artificial Intelligence and embark on a transformative journey towards becoming an adept AI professional.





## At a glance

### Start Date

September 2024

### Award

Level 8 NFQ (10 ECTS)

### Delivery

Online as a live classroom event

### Duration

12 weeks part-time on Tuesday and Thursday evenings from 6.30pm to 9.00pm.

### Fees

Skillnet subsidised: €895

Non-subsidised: €1,259

### Programme Partners

TU Dublin

Krisolis

Women in AI Ireland Chapter



## Programme delivery

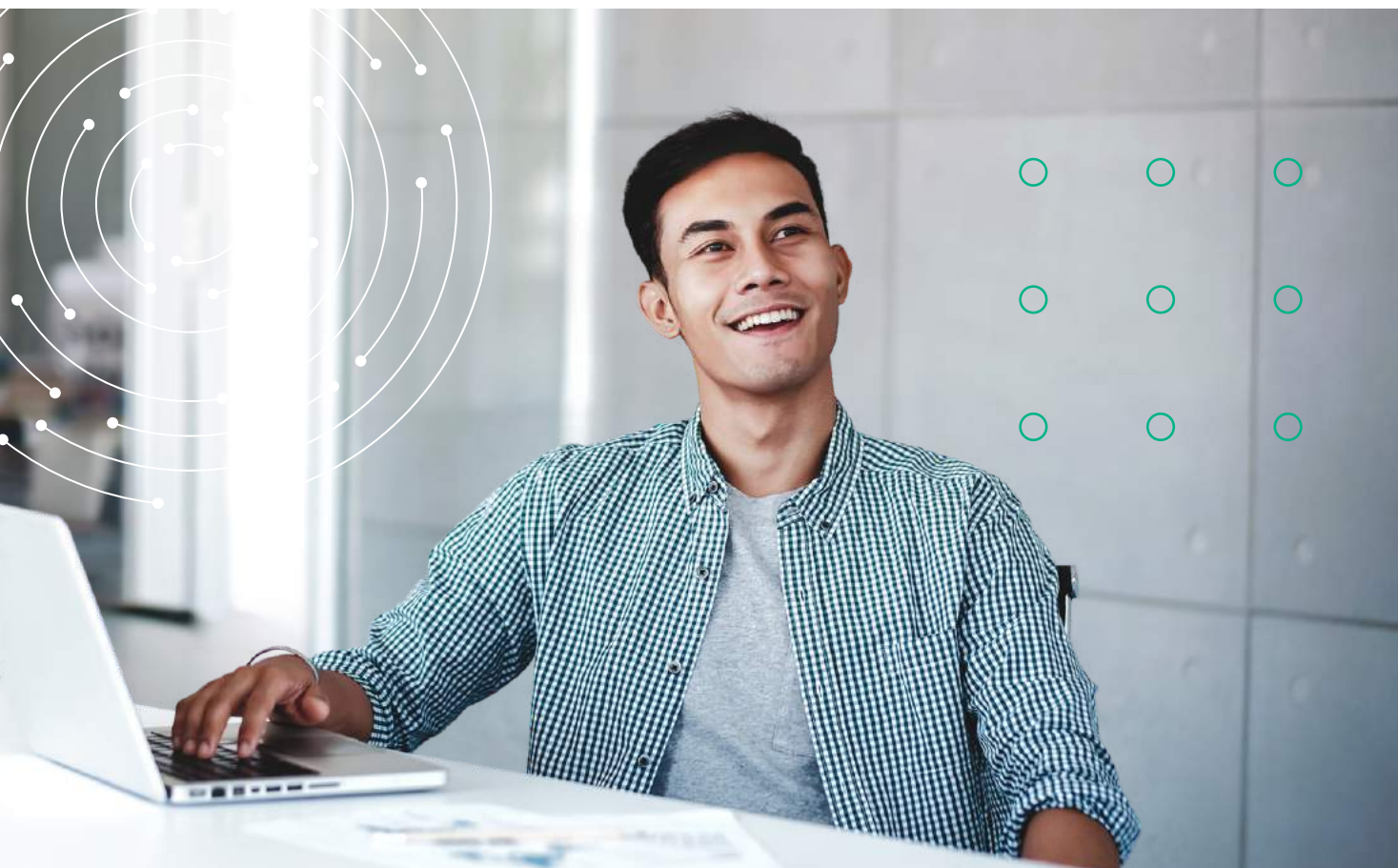
The programme will run over 12 weeks, on Tuesday and Thursday evenings from 6.30pm to 9.00pm as a live classroom event. The course material will include video recordings as well as readings, exercises, and assignments.

Each student will receive 1-1 private mentoring sessions.

Programme partner Krisolis will be responsible for the delivery of the programme, from classes to mentoring and marking of final assessments.



*Organisational decision-makers, like business leaders and middle management, all need basic AI knowledge and skills, to understand proposals for initiatives made by AI professionals and to understand the impact of AI on business processes.*



## Who is this programme for

This course is uniquely designed for anyone who wants to understand the foundations of artificial intelligence and its respective technologies. Applicants may be from IT or non-computing backgrounds.

- ▶ **Professionals looking to enhance their current roles** through AI upskilling.
- ▶ **Leaders striving to acquire the skills** necessary for effective team management and communication in AI contexts.
- ▶ **Individuals contemplating a transition** into AI roles or higher education.
- ▶ **Recent graduates** from different fields interested in integrating AI knowledge to complement their expertise.
- ▶ **Returnees to the workforce** after a career break, aiming to acquire up-to-date AI skills.

# Course content breakdown

Content for the Certificate in Foundations of Artificial Intelligence is delivered across the following classes:

## Introduction to Artificial Intelligence

We'll explore what AI is, its component parts, applications, and use cases.

## Using an Agile Framework and Designing and Architecting AI Solutions

Following an overview of the CRISP-DM and Agile methodologies, we will explore how these methodologies can be leveraged to create an Agile Framework for running AI projects.

## AI Tools and Ecosystems

In AI things are always changing. We'll look at some of the current and emerging AI toolsets and ecosystems.

## Programming with Python

The Python language is one of the most powerful and flexible tools in the AI toolkit. This section introduces Python programming and how to use it to perform data manipulation and data analysis tasks.

## The Mathematical Foundations of AI

This section will introduce the underlying mathematical foundations that underpin decision making and Artificial Intelligence.

## Ethical Practice in Artificial Intelligence, Data Science and Analytics

We will examine the social, legal, and ethical issues relevant to the design and development of Artificial Intelligence solutions.

## Data Visualisation

We'll cover the fundamentals of data visualisation needed to create compelling visualisations from data, along with the practical skills to do this.

## Capstone Project

Students have the option to select their capstone project from a group of sample projects or create their own on any subject.

The capstone project topic will be determined by the student halfway through the course. Mentoring sessions will be arranged to aid in project development. The project, along with personal reflections, will be completed and submitted at the end of the course.

# Outcomes for you

This programme serves as a stepping stone to further education and career progression. At the end of this 12-week programme, you will have gained a thorough understanding of the foundations of artificial intelligence and be ready to further your AI journey.



## You will be able to:

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Describe what artificial intelligence is and outline the component parts of the domain.

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Design and validate use cases for applying artificial intelligence to create effective solutions.

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Curate, organise and analyse data for artificial intelligence projects.

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Develop a deeper understanding of artificial intelligence through research and the documentation of AI findings

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Explain the importance and considerations of ethics and social justice in designing and developing artificial intelligence solutions

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## Award



Participants will receive a parchment for the CPD Certificate in Foundations of Artificial Intelligence awarded by TU Dublin upon successful completion of the programme.

## Assessment



Assessment of learning achievement will be through a mix of

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On-line examination

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Class assignments

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Personal learning journal

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Capstone project

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## Academic eligibility



Applicants need to possess a Level 8 (NFQ) Primary Degree, ideally but not necessarily, in a cognitive discipline and will be expected to have an appreciable level of quantitative aptitude. Applicants with relevant IT-work experience and IT-oriented Level-7 qualifications can apply to be considered for application. These applications will be assessed on a case-by-case basis.

For candidates who do not meet this minimum entry requirement, TU Dublin operates a [Recognition of Prior Experiential Learning \(RPEL\)](#) scheme whereby applicants may be considered based on relevant work or other experiences. Please note TU Dublin is the sole arbitrator on who is accepted on the course. ICT Skillnet only assesses your eligibility for funding.

For applicants whose first language is not English, please note the [English language entry requirements](#).

## Funding eligibility

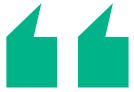
The fees for this programme are part-funded by Technology Ireland ICT Skillnet. The reduced programme fees are €895.

Applicants must be working in a private or commercial semi-state organisation registered in the Republic of Ireland (Business, Consultant, Freelancer) to avail of the grant-aided fees. As a government-funded training network, we can only support those meeting these criteria.

Applicants who do not meet our funding criteria may in some cases be able to apply and pay the full fee of €1,259 if there are available places.

Please speak with our programme team to learn more about the availability of funding.

[info@ictskillnet.ie](mailto:info@ictskillnet.ie)



Before taking this course, I took some other online courses, and this is definitely not like that. You're not going to sit in front of your computer or laptop watching a video. No, in this case there will be live interaction, there will be one-on-one mentoring sessions, there will be assignments, workshops and teamwork. All of this in particular was important for me. You will get the high standards that you would expect from higher education.

**Jocelyn Castro-Catalan**  
Reverse Logistics Analyst, Expeditors

Programme delivered in partnership with:



TU Dublin is Ireland's 1st Technological University. As such, its education programmes concentrate on the real-world practice of technology. TU Dublin's Faculty of Computing, Digital and Data is a leading provider of high-level ICT programmes in a wide range of technology areas, including software engineering, data science, cybersecurity, artificial intelligence, and machine learning.



Krisolis is a leading consultancy firm specialising in data analytics and artificial intelligence solutions. With a strong focus on innovation and a deep understanding of cutting-edge technologies, Krisolis empowers organisations to harness the full potential of their data. Their team of experts combines extensive industry experience with a passion for driving actionable insights and strategic value.



The Women in AI Ireland Chapter is a vibrant community dedicated to promoting gender diversity and inclusivity within the field of Artificial Intelligence (AI). Composed of passionate professionals and enthusiasts, the chapter actively supports and empowers women in various AI-related disciplines.

## Ready to develop your career in Artificial Intelligence?

Our team is ready to answer any questions you might have regarding this programme. Send an email to [info@ictskillnet.ie](mailto:info@ictskillnet.ie) or use the enquiry form on our programme page and one of our programme leads will be delighted to assist you.

Successful applicants will be required to complete registration details both for Technology Ireland ICT Skillnet and for TU Dublin. Programme participants will become registered students of TU Dublin.

**Start your learning journey today** with Technology Ireland ICT Skillnet by clicking on the Learn More button.

**Learn More**



Embrace the future with confidence, with Technology Ireland ICT Skillnet as your training partner.



## Programme pillars

Our wide range of programme channels allows you to access training in the latest technologies driving business development.



## Industry approved

With the support of our Industry Steering Group, made up of some of Ireland's most progressive companies, you can be assured that our programmes will provide you with the most relevant and cutting-edge skills that industry demands.



## Certification you can trust

Through our strategic partnerships with some of Ireland's most influential higher education institutions, we offer a range of certificate, diploma, and masters programmes, with awards accredited on the National Framework of Qualifications.



Join 12,000+ learners who have transformed their careers with us. **Explore our range of courses >**

[www.ictskillnet.ie](http://www.ictskillnet.ie)





UNLEASH YOUR  
UNSTOPPABLE POTENTIAL



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[www.ictskillnet.ie](http://www.ictskillnet.ie)

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Rialtas na hÉireann  
Government of Ireland



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