

Certificate in Foundations of Artificial Intelligence

ONLINE • PART-TIME • NFQ LEVEL 8







# 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.



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

Creating opportunity and momentum for experienced professionals and those starting out or transitioning career. Delivering learning solutions in a way that balances work and study.

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



**6,000+** 

companies supported



14,000+

learners upskilled



30+

professional programmes



Online, blended, and in-company training supports



Government-subsidised programme fees, up to 100%

# Certificate in Foundations of Artificial Intelligence Your Al 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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Winner of 'Digital Skills Initiative of the Year' at the 2024 Public Sector Digital Transformation Awards. 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 Al Ireland Chapter, we have developed the award-winning Online Certificate in Foundations of Artificial Intelligence (Level 8 NFQ) as a direct response to this challenge.

Al can enhance operational efficiency, and those who are knowledgeable in this area can identify opportunities to streamline processes and increase productivity. The course provides a comprehensive curriculum designed by industry experts, helping you to acquire a competitive edge in harnessing Al'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 Al professional.



## At a glance

#### **Start Date**

Please enquire for 2026 dates

#### **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**

Please enquire for 2026 course fees

#### **Programme Partners**

TU Dublin Krisolis Women in Al Ireland Chapter



#### Course delivery

The course 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.

This course provides one-to-one mentoring to guarantee that you derive maximum benefits from your learning journey. You will have the chance to receive guidance from a knowledgeable mentor who will assist you during the course.

Course partner Krisolis will be responsible for the delivery of the programme, including classes, 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 course 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 Al upskilling.
- Leaders striving to acquire the skills necessary for effective team management and communication in Al contexts.
- Individuals contemplating a transition into Al 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 Al 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 Al 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 Al

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.

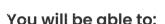
The capstone project topic will be determined by the student halfway through the course. Mentoring sessions will be arranged to aid in project development. The project, along with personal reflections, will be completed and submitted at the end of the course.





### Outcomes for you

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



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

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

Curate, organise and analyse data for artificial intelligence projects.

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

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



#### **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

On-line examination

Class assignments

Personal learning journal

Capstone project





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. Technology Ireland ICT Skillnet only assesses your eligibility for funding.

For applicants whose first language is not English, please note the <u>English language entry</u> requirements.

#### **Funding eligibility**

The fees for this
programme are
part-funded by
Technology Ireland
ICT Skillnet. Please enquire
for the 2026 subsidised
course fees

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 be able to apply directly to the trainer and pay the full course fee, if there are available places.

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

info@ictskillnet.ie



#### Course delivered in partnership with:





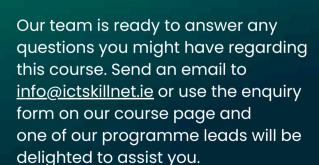


TU Dublin is Ireland's 1st
Technological University.
As such, its education
programmes concentrate
on the real-world practice of
technology. TU Dublin's Faculty
of Computing, Digital and Data
is a leading provider of highlevel ICT programmes in a wide
range of technology areas,
including software engineering,
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 organistions 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 Al Ireland
Chapter is a vibrant community
dedicated to promoting gender
diversity and inclusivity within
the field of Artificial Intelligence
(Al). Composed of passionate
professionals and enthusiasts,
the chapter actively supports
and empowers women in
various Al-related disciplines.

# Ready to develop your career in Artificial Intelligence?



Successful applicants will be required to complete registration details both for Technology Ireland ICT Skillnet and for TU Dublin. Course 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.



Artificial Intelligence



Cloud



Cybersecurity



Data Analytics



Innovation & Transformation



Leadership



Quantum



Software Architecture



Software 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 cuttingedge 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 14,000+ learners who have transformed their careers with us. **Explore our range of courses** >

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# UNLEASH YOUR UNSTOPPABLE POTENTIAL





Get in touch to invest in your development. **Email:** <u>info@ictskillnet.ie</u> **Call:** +353 (0)1 469 3754

www.ictskillnet.ie

Technology Ireland ICT Skillnet is co-funded by Skillnet Ireland and network companies. Skillnet Ireland is funded from the National Training Fund and the European Union through the Department of Further and Higher Education, Research, Innovation and Science.





