Society of Actuaries in Ireland

Basis for promoting to members:

"CPD Certificate in Foundations of Artificial Intelligence"

- **a joint initiative of Krisolis and Technological University Dublin (TUD)**

Data Science Committee

Date | June 2025

1. Introduction

As part of its strategy the Society wishes to increase the educational opportunities available to our members – particularly in the area of Artificial Intelligence. The Data Science Committee, in conjunction with the Executive, has been working on two key initiatives:

1. Establishing a syllabus of the AI topics relevant to actuaries which would underpin our educational offerings i.e. "AI CPD Syllabus" and

2. Exploring our options for providing a course(s)/certification to our members.

The purpose of this paper is to outline the basis for the Data Science Committee choosing to promote to our members the **"CPD Certificate in Foundations of Artificial Intelligence"** provided by **Krisolis**, an established provider of AI Training and Consultancy services , and **Technological University Dublin (TUD).**

2. Course Overview

The course is run as an online course over 12 weeks with approximately 60 hours of class time and 120 hours of independent learning (including a project).

A detailed outline of the course can be found in the attached document provided by Krisolis and the learning outcomes are reproduced below:

Learning Outcomes

At the end of this programme, participants will have established a foundation in artificial intelligence demonstrated by being able to:

1   Describe what Artificial Intelligence is and outline the component parts of the domain.

2   Explain the importance and considerations of ethics and social justice in designing and developing Artificial Intelligence solutions.

3   Design and validate use cases for applying Artificial Intelligence to create effective solutions.

4   Curate, organise and analyse data for Artificial Intelligence projects.

5   Research and document findings about Artificial Intelligence developments.

6   Complete a Capstone Project that encapsulates learning from the content covered on the certificate programme. The Capstone project will be an AI or data project that is linked to a practical industry application.

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3. Reasons for Recommendation

The Data Science Committee is recommending this course to members for the following reasons:

- Alignment of course content with AI CPD Syllabus
- Ability to tailor to individual members' needs
- Quality and reputation of instructors
- Availability of Skillnet Funding (30%)
- Accreditation by recognised body (TU Dublin)

Each of these reasons are explored further in the following subsections:

3.1   Alignment of course content with AI CPD Syllabus

The standard course was tailored to reflect the technical background of our members and taking account of our AI CPD Syllabus. The principal changes from the standard course are:

- A reduction in the time allotted to "Machine Learning with Python" on the assumption that our members are likely to progress through this quicker than the average attendee. This allowed for the introduction of two new topics: "Deep Learning" and "NLP" (Natural Language Processing)

- Introduction of the topics "Creating an AI strategy" and "Data and AI Governance"

The course content is therefore as follows:

Week	Programme Content	No. of Teaching Sessions	No. of Contact Hours
0	Programme Orientation	1	2
1	Introduction to Artificial Intelligence	1	2.5
1	Creating an AI Strategy	1	2.5
2	Using an Agile Framework and Designing and Architecting AI Solutions	1	2.5
2	AI Tools and Ecosystems	1	2.5
3	Data Visualisation	2	5
3	First 121 Mentoring Session	1	0.5
4 & 5	Introduction to Programming (Python)	4	10
6 & 7	Machine Learning with Python	4	10
8	Deep Learning	2	5
9	NLP	2	5
9	Second 121 Mentoring Session	1	0.5
10	Data and AI Governance	1	2.5
10	Ethical Practice in Artificial Intelligence, Data Science and Analytics	1	2.5
11 & 12	Capstone Project Support	4	10
	TOTAL	**27**	**63**

Krisolis have also agreed that they can implement other tailoring - at an agreed daily rate.

3.2   Ability to tailor to individual members' needs

In addition to tailoring for actuaries, the course itself allows individuals to tailor the learning experience to their needs. This means that the course is suitable for both "business" and "technical" actuaries. This individual customisation is achieved through mentoring, the choice of project and through the individual learning log where attendees reflect on the learnings from each section and their additional reading.

3.3   Quality and Reputation of Speakers

The course instructors have an established track record in this area and more details are available in the brochure. The providers Krisolis were recommended to us and we also received positive feedback from a member who completed the standard course.

3.4   Availability of Funding from Skillnet (30%)

This course has been approved for funding by the ICT Skillnet. Funding of 30% of the course fee is available such that the costs are as follows:

Cost before Vat:	€2,100
*VAT:	€124
Cost before Skillnet Discount:	€2,224
**Discount:	€667
Total Cost after Discount incl. of VAT:	€1,557

* VAT is payable on the administrative expenses of TUD

**Members must be working in a private or commercial semi-state organisation registered in the Republic of Ireland (Business, Consultant, Freelancer) to avail of the discount

3.5   Accreditation by recognised body (TU Dublin)

Anecdotally we believe that members would value having accreditation by a recognised body. We're also aware that there are some members who may be more interested in completing this course simply for the knowledge and may wish to do the course without the accreditation. Krisolis have confirmed that it is possible for participants to do the course without accreditation but we will not be openly promoting this option – at least for this first intake - given that we would first like to focus on those seeking accreditation and it is administratively more difficult for Krisolis to offer both.

3. Next Steps

We are aiming to commence the course in September 2025 and would therefore hope to launch an Expressions of Interest by July 2025. Following receipt of the expressions of interest there will be an information webinar where members can meet instructors and ask further questions before committing. We need to have a minimum of 20 attendees to proceed with the tailored course and there is a limit of 30 participants given the need for Krisolis to assign mentors for attendees.