

CERTIFICATE OF VALIDATION

New validation

Validation Process: **Revalidation**

Provider Name	Dublin Business School
Date of Validation	10-Jun-25

	Code	Title	Award	Exit Only
Principal Programme	PG26323	Master of Science in Artificial Intelligence	Master of Science (Masters Degree at NFQ Level 9) 9M22918 90 credits	N/A
Embedded Programme	PG26325	Postgraduate Diploma in Science in Artificial Intelligence	Postgraduate Diploma in Science (Postgraduate Diploma at NFQ Level 9) 9M22916 60 credits	Yes

	First Intake	Last Intake
Enrolment Interval	Sep-25	Aug-30

Principal Programme

	Full Time	Part Time	Delivery Mode: full-time / part-time
Intakes per Annum:	3	2	Full Time, Part Time
Minimum Learners per Intake:	10	10	
Maximum Learners per Intake:	120	120	
Duration (months)	12	24	

Target Learner Groups

The Master of Science in Artificial Intelligence programme is aimed at learners with a minimum-second-class second-division (2.2) Level 8 honours bachelor's degree or Higher Diploma in a cognate area who wish to specialise in the field of Artificial Intelligence with a view to entering industry. Cognate subjects include computer science, technology, networking, information systems, engineering, general science, mathematics, statistics, data analytics, or related disciplines.

The programme has specific aims to cultivate a deep understanding of current and emerging computer technologies, particularly in the development and use of information systems. It also provides students with the knowledge and skills to effectively manage information technology within organisational contexts.

Recognising the dynamic nature of the computing sector, the programme promotes the development of autonomous learning skills, enabling graduates to adapt to evolving industry needs. It also instills a strong ethical awareness, preparing graduates to respond thoughtfully to unforeseen challenges.

Ultimately, this programme provides a comprehensive foundation for career development, innovation, and further study in the field of Artificial Intelligence. Graduates will possess a critical understanding of core concepts, enhanced practical skills, and the research capabilities needed to excel in this dynamic field.

Brief Synopsis of the Programmes

The Masters has been designed to meet the growing need for Artificial Intelligence (AI) throughout the workforce which can directly add value and wealth to Irish businesses and the society. Given society's increasing communications with the global partners, AI is emerging as an identifiable discipline with a breadth and depth of content that encompasses many of the subfields (e.g. software development, machine learning, human/machine interactions etc.) that form the modern computing ecosystem.

Semester one (FT) lays the groundwork for the programme and encompasses mostly foundational modules that focus on providing a solid and comprehensive understanding of the relevant concepts, a proficiency in the use of programming for data analytics and machine learning, and pattern recognition. Learners develop advanced applied skills in essential areas such as programming, graph, machine learning and pattern recognition for AI, while also offering knowledge of research methods to develop an understanding of the current developments and literature.

Semester two (FT) builds on this by covering advanced modules in which the knowledge, understanding, and skills acquired in the first semester can be employed. Semester two modules offer applied skills in topics such as deep learning, reinforcement learning, and natural language processing, as well as recommender systems. Semester two also comprises an Applied Research Methods module, which focuses on research and development skills. This module will inform learners' Applied Research Project in Semester three (FT). In addition, the programme aims to incorporate advanced practical skills in each module for the professional development of learners to enhance their employability options. This will enable the learner to integrate seamlessly into an organisation by addressing skills such as awareness of social media, leadership, self-management, teamwork, and academic writing that are essential for a Level 9 graduate.

The programme aims to develop learners within the Artificial Intelligence (AI) discipline involving skills in technology, programming, data science, and information processing to respond to the ever-growing demand across industries for AI specialists. The programme also recognises the interdisciplinary nature of AI, combined with analytics and exploding data volumes, creating an environment for AI to emerge as a key technology of the future.

According to a recent report by Forbes AI skills will be required in every industry and could create globally up to 22 million new jobs. Recent findings and estimates were presented in the World Economic Forum and the estimates were that by 2025 machines are expected to perform more current work tasks than humans, compared to 71% being performed by humans today. The report concludes that robotics, smart automation technology, and artificial intelligence, could contribute up to \$15 trillion to global GDP by 2030.

This programme is designed to meet the growing need for AI throughout the workforce which can directly create added value and wealth to the Irish businesses and the society. Given society's increasing communications with the global partners, AI is emerging as an identifiable discipline with a breadth and depth of content that encompasses many of the subfields (e.g., software development, machine learning, human/machine interactions etc.) that form the modern computing ecosystem. Underlying this emergence is the need to prepare specialists across a range of work roles for the complexities associated with this modern working style.

Learners initially develop advanced practical skills in essential areas such as Programming for Data Analytics, Machine Learning, and Pattern Recognition. Furthering the learner's practical abilities, the programme offers applied skills in contemporary topics such as recommender systems, deep learning and reinforcement learning as well as natural language processing.

The programme aims are to incorporate practical skills in each module for the professional development of learners to enhance their employability options. This will enable the learner to integrate seamlessly into an organisation. The Master of Science programme also comprises a Research Methods and an Applied Research Methods module, which focuses on research and development skills. This module will inform the learner's capstone project. Throughout the programme, learners will develop advanced critical thinking, writing, and research skills. The Applied Research Project is specifically designed to encourage learners to formulate industry-focused 'problem' statements. Learners will then be supported by academic supervisors and introduced to industry mentors in their chosen field of contemporary research. Through this process, learners will have the opportunity to research, ideate, develop, and innovate solutions to create value for real-world AI decisions makers.

Minimum Intended Programme Learning Outcomes

On completion of this programme the learner will be able to:

1. Synthesize and apply a comprehensive understanding of the theoretical and conceptual knowledge essentials in the field of Artificial Intelligence.
2. Evidence critical awareness of Artificial Intelligence particularly Machine Learning and Deep Learning Algorithms and Libraries.
3. Critically analyse a range of models, API's, and techniques identifying strengths and weaknesses within current AI standards.
4. Evidence advanced skills that are required in the design, development, evaluation of Artificial Intelligence solutions in a modern computing environment.
5. Identify novel applications for Artificial Intelligence technology that align with strategic business goals.
6. Evaluate and synthesize the impact of technological, political, social, regulatory, and economic forces on the evolution and implications of Artificial Intelligence.
7. Establish excellent communication, time-management, teamwork and leadership abilities for a professional environment.
8. Support continuing professional development to ensure that key considerations and implications of 'own work' and 'work of others' are in the best interests of all stakeholders through maintaining integrity and independence in professional judgement.
9. Evolve problem-solving skills to address clients' problems through applied knowledge of contemporary state-of-the-art artificial intelligence topics.
10. Critically appraise and apply advanced research methodologies to plan, develop, and manage a research project, demonstrating sophisticated competencies in Artificial Intelligence and a comprehensive understanding of ethical considerations.

Teaching and Learning Modes

1. Directed Learning
2. E-learning (directed)
3. E-learning (self-directed)
4. Group Discussions
5. Laboratory / Studio
6. Lectures / Classes
7. Practical Sessions
8. Practical/workshop/Laboratories/studio sessions
9. Self Directed Learning
10. Tutorials
11. Workshops

Approved Countries

Ireland

Physical Resource Requirements

Appropriately equipped computer work area.

Lecture rooms of sufficient size for work in breakout groups/with appropriate multimedia resources.

Appropriate software resources to be used in the teaching and learning of all modules.

Learners are also required to have ongoing access to a computer, related software, and a reliable internet connection. This means that for learners their laptop or desktop computer will require a minimum of a supported version of a Windows operating system and 4GM RAM.

Staff Profiles	Qualifications and Experience	WTE
Lecturer	<p>Lecturing staff will have a minimum of a Masters and/or PhD in the following areas:</p> <ul style="list-style-type: none"> Computing science / Computing Artificial Intelligence Data Analytics Computer Technology Mathematics and statistic Research methods <p>In modules where industry experience is desirable, those who are exceptionally qualified by virtue of senior significant experience may also be considered.</p>	9
Academic Director	<p>The Academic Director will be responsible for the overall management and development of the programme, the coordination of the organisation and delivery of the programme, and the management and support of learners on the programme through Assistant Academic Directors and Programme Level Managers. The Academic Director is responsible for the suite of programmes in their discipline area and ensures programme offerings are current, employment-focused and academically robust and coherent in construct. The Academic Director provides academic leadership to Faculty and to Programme Teams in the development and delivery of high-quality, progressive, learner-centred education. The Academic Director role is focused around 3 distinct areas:</p> <ul style="list-style-type: none"> Governance of discipline area programmes. Programme development, review, and retention for discipline areas. Programme innovation, employer engagement and foster business opportunity in the discipline area. 	1
Assistant Academic Director	<p>The Assistant Academic Director works alongside the Academic Director across many of their duties, including the management and development of the programme, the coordination of the organisation and delivery of the programme, and the management and support of learners on the programme. The Assistant Academic Director also works in a student facing capacity, through teaching and supporting students more generally throughout their time as DBS. The Assistant Academic Director role is focused around 3 distinct areas:</p> <ul style="list-style-type: none"> Effective programme management and teaching, learning and assessment initiatives in DBS programmes. Implementation of programme development, review, and retention initiatives in the discipline area. Supporting the discipline Academic Director in discipline development, enhancement and innovation including opportunities for business development, employer-facing initiatives and improved graduate outcomes. 	1
Programme Level Manager	<p>The Programme Level Manager (PLM) provides professional leadership and management for an allocated subject area in order to facilitate teaching and learning and to secure effective use of resources. This includes undertaking teaching duties as appropriate to the requirements of a programme and consistent with the area(s) of expertise, keeping up to date with teaching and learning developments and being alert to best practice, providing guidance to colleagues on content, methodology and resources regarding the subject area and answering subject specific queries and requests for accommodations from learners.</p>	1

Approved Centres	Centre	Minimum Enrolment per Annum	Maximum Enrolment per Annum
	38628L Dublin Business School	10	600

Additional Locations	Location Name	Minimum Enrolment per Annum	Maximum Enrolment per Annum
	N/A		

Learner Teacher Ratios	Learning Activity	Ratio
	Workshops	1:30
	Practical Lab sessions	1:30
	Lecture classroom-based sessions	1:60
	Online Lectures	1:60

Programme being replaced by this Programme	Prog Code	Programme Title	Validated
	PG24324	Master of Science in Artificial Intelligence	15-Oct-20

Embedded Programme

Validation Process: **Revalidation**

Code	Title	Award	Exit Only
PG26325	Postgraduate Diploma in Science in Artificial Intelligence	Postgraduate Diploma in Science (Postgraduate Diploma at NFQ Level 9) 9M22916 60 credits	Yes

	Full Time	Part Time	Delivery Mode: full-time / part-time
Duration (months)	9	18	Full Time, Part Time

Target Learner Groups

The Postgraduate Diploma in Science in Artificial Intelligence is an embedded exit award for those who cannot complete the Master of Science in Artificial Intelligence programme.

Brief Synopsis of the Programmes

There is one embedded programme in the Master of Science in Artificial Intelligence, a Postgraduate Diploma in Science in Artificial Intelligence. The Postgraduate Diploma is offered as an exit award for learners who cannot complete the full Master's programme. Semester one (FT) lays the groundwork for the programme and encompasses mostly foundational modules that focus on providing a solid and comprehensive understanding of the relevant concepts, a proficiency in the use of programming for data analytics and machine learning and pattern recognition. Learners develop advanced applied skills in essential areas such as programming, graph, machine learning, and pattern recognition for AI, while also offering theoretical knowledge of cognitive science and research methods. Semester two (FT) builds on this by covering advanced modules in which the knowledge, understanding, and skills acquired in the first semester can be employed. Semester two modules offer applied skills in topics such as deep learning, reinforcement learning, and natural language processing, as well as recommender systems.

In addition, the programme aims to incorporate advanced practical skills in each module for the professional development of learners to enhance their employability options. This will enable the learner to integrate seamlessly into an organisation by addressing skills such as awareness of social media, leadership, self-management, teamwork, and academic writing that are essential for a Level 9 graduate.

Minimum Intended Programme Learning Outcomes

On completion of this programme the learner will be able to:

1. Synthesize and apply a comprehensive understanding of the theoretical and conceptual knowledge essentials in the field of Artificial Intelligence.
2. Evidence critical awareness of Artificial Intelligence particularly Machine Learning and Deep Learning Algorithms and Libraries.
3. Critically analyse a range of models, API's and techniques identifying strengths and weaknesses within current AI standards.
4. Evidence advanced skills that are required in the design, development, evaluation of Artificial Intelligence solutions in a modern computing environment.
5. Identify novel applications for Artificial Intelligence technology that align with strategic business goals.
6. Evaluate and synthesize the impact of technological, political, social, regulatory, and economic forces on the evolution and implications of Artificial Intelligence.
7. Establish excellent communication, time-management, teamwork and leadership abilities for a professional environment.
8. Support continuing professional development to ensure that key considerations and implications of 'own work' and 'work of others' are in the best interests of all stakeholders through maintaining integrity and independence in professional judgement.
9. Evolve problem-solving skills to address clients' problems through applied knowledge of contemporary state-of-the-art artificial intelligence topics.

Teaching and Learning Modes

1. Directed Learning
2. E-learning (directed)
3. E-learning (self-directed)
4. Group Discussions
5. Laboratory / Studio
6. Lectures / Classes
7. Practical Sessions
8. Practical/workshop/Laboratories/studio sessions
9. Self Directed Learning
10. Tutorials
11. Workshops

Approved Countries

Ireland

Physical Resource Requirements

Appropriately equipped computer work area.

Lecture rooms of sufficient size for work in breakout groups/with appropriate multimedia resources.

Appropriate software resources to be used in the teaching and learning of all modules.

Learners are also required to have ongoing access to a computer, related software, and a reliable internet connection. This means that for learners their laptop or desktop computer will require a minimum of a supported version of a Windows operating system and 4GM RAM.

Staff Profiles	Qualifications and Experience	WTE
Lecturer	<p>Lecturing staff will have a minimum of a Masters and/or PhD in the following areas:</p> <ul style="list-style-type: none"> Computing science / Computing Artificial Intelligence Data Analytics Computer Technology Mathematics and statistic Research methods <p>In modules where industry experience is desirable, those who are exceptionally qualified by virtue of senior significant experience may also be considered.</p>	9
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Programme Level Manager	<p>The Programme Level Manager (PLM) provides professional leadership and management for an allocated subject area in order to facilitate teaching and learning and to secure effective use of resources. This includes undertaking teaching duties as appropriate to the requirements of a programme and consistent with the area(s) of expertise, keeping up to date with teaching and learning developments and being alert to best practice, providing guidance to colleagues on content, methodology and resources regarding the subject area and answering subject specific queries and requests for accommodations from learners.</p>	1

Approved Centres	Centre	Minimum Enrolment per Annum	Maximum Enrolment per Annum
	38628L Dublin Business School	0	0

Additional Locations	Location Name	Minimum Enrolment per Annum	Maximum Enrolment per Annum
	N/A		

Learner Teacher Ratios	Learning Activity	Ratio
	Workshops	1:30
	Practical Lab sessions	1:30
	Lecture classroom-based sessions	1:60
	Online Lectures	1:60

Programme being replaced by this Programme	Prog Code	Programme Title	Validated
	PG24325	Postgraduate Diploma in Science in Artificial Intelligence	15-Oct-20

Conditions of Validation of the Programmes Covered by this Certificate of Validation

Part 1: Statutory Conditions of Validation

The statutory (section 45(3) of the 2012 Act) conditions of validation are that the provider of the programme shall:

1. Co-operate with and assist QQI in the performance of QQI's functions in so far as those functions relate to the functions of the provider,
2. Establish procedures which are fair and consistent for the assessment of enrolled learners to ensure the standards of knowledge, skill or competence determined by QQI under section 49 (1) are acquired, and where appropriate, demonstrated, by enrolled learners,
3. Continue to comply with section 65 of the 2012 Act in respect of arrangements for the protection of enrolled learners, if applicable, and
4. Provide to QQI such information as QQI may from time to time require for the purposes of the performance of its functions, including information in respect of completion rates.

Part 2 Conditions of Validation Established by QQI Under section 45(4)(b) of the 2012 Act

Part 2.1 Condition of Validation Concerning a Change in the QQI Award or Award Standard

1. Where QQI changes an award title, an award specification or an award standard that a programme depends upon, the provider shall not enrol any further learners on the affected programmes unless informed otherwise in writing by QQI (e.g. by the issue of a revised certificate of validation). The programme is considered validated for learners already enrolled on the affected programme.

Part 2.2 Condition of Validation Concerning the Duration of Enrolment

1. The duration of enrolment is the interval during which learners may be enrolled on the validated programme.

Validation is determined by QQI for a specified number of years of enrolment appropriate to the particular programme as indicated on the certificate on validation subject to unit 9.2.1. It is a condition of validation that the programme does not enrol any new learners outside this interval. A typical duration would be five years.

If a provider wishes to continue to enrol learners to the programme beyond this interval the provider must arrange in good time for it to be validated again by QQI, or exceptionally the provider may apply for extension of the duration of enrolment (unit (14)). In this context the provider may apply for validation of the programme from first principles or, alternatively, the provider may avail of the process for revalidation (unit (13)) by QQI.

Part 2.3 General Condition of Validation

The provider of the programme shall:

1. Ensure that the programme as implemented does not differ in a material way from the programme as validated; differing in a material way is defined as differing in any aspect of the programme or its implementation that was material to QQI's validation criteria.
2. Ensure that the programme is provided with the appropriate staff and physical resources as validated.
3. Implement in respect of the programme its written quality assurance procedures (as approved by QQI).
4. Make no significant change to the programme without the prior approval of QQI. (See unit (8)).
5. Unless otherwise agreed by QQI in writing, start implementing the programme as validated and enrol learners within 18 months of validation.
6. Continue in respect of the validated programme to comply with section 56 of the 2012 Act in respect of procedures for access, transfer and progression.
7. Implement the programme and procedures for assessment of learners in accordance with the Approved Programme Schedule and notify QQI in writing of any amendments to this arising from changes to the programme; see unit (9).
8. When advertising and promoting the programme and awards, use the programme title as validated, and the correct QQI award title(s), award type(s) and award class(es) indicating the level of the award(s) on the National Framework of Qualifications.

9. Adhere to QQI regulations and procedures for certification.

10. Notify QQI in writing without delay of: a. Any material change to the programme; a. Anything that impacts on the integrity or reputation of the programme or the corresponding QQI awards; b. Anything that infringes the conditions of validation; or c. Anything that would be likely to cause QQI to consider reviewing the validation.

11. Notify QQI in writing to determine the implications for the provider's validated programmes, where the provider is likely to, or planning to, merge (amalgamate) with another entity or to acquire, or be acquired by, another entity (see unit (12.5)) .

12. Report to QQI, when required or requested, on its implementation of the programme and compliance with the conditions of validation.

Part 2.4 General Condition of Validation Arising from Specialised Validation Policy and Criteria

Part 2.5 Special Conditions of Validation

Programme and stage schedules

PG26323 Master of Science in Artificial Intelligence

Name of Provider		Dublin Business School											
Programme Title		PG26323 Master of Science in Artificial Intelligence											
Award Title		Master of Science						Exit Award Only		N/A			
Teaching and learning modalities		Lectures / Classes; Practical Sessions; Tutorials; Directed Learning; E-learning (directed); E-learning (self-directed); Group Discussions; Laboratory / Studio; Practical/workshop/Laboratories/studio sessions; Self Directed Learning; Workshops											
Delivery Modes	Award Class	Award NFQ Level	Award EQF Level	Stage	Stage NFQ Level	Stage Credits	First Intake		ISCED Code				
Both	Major	9	7	Award Stage	9	90	Sep 2025		06.1.1				
Module				Total Student Effort Module (Hours)					Allocation of Marks				
Title	Semester	Status	Credit	Total Hours	Class Contact Hours	Direct e-learning	Hours of independent learning	Work-based learning efforts	C.A. %	Project %	Skills demonstration %	Exam %	Workbased %
Programming for Data Analysis	1	M	10	250	48	0	202	0	100	0	0	0	0
Graph and AI	1	M	5	125	24	0	101	0	100	0	0	0	0
Machine Learning and Pattern Recognition	1	M	10	250	48	0	202	0	100	0	0	0	0
Research Methods	1	M	5	125	24	0	101	0	100	0	0	0	0
Recommender Systems	2	M	10	250	48	0	202	0	100	0	0	0	0
Deep Learning	2	M	10	250	48	0	202	0	100	0	0	0	0
Reinforcement Learning	2	M	5	125	24	0	101	0	100	0	0	0	0
Natural Language Processing	2	M	5	125	24	0	101	0	100	0	0	0	0
Applied Research Methods	2	M	5	125	24	0	101	0	100	0	0	0	0
Applied Research Project	3	E	25	625	6	0	619	0	0	100	0	0	0
Dissertation	3	E	25	625	6	0	619	0	0	100	0	0	0

PG26325 Postgraduate Diploma in Science in Artificial Intelligence

Name of Provider		Dublin Business School													
Programme Title		PG26325 Postgraduate Diploma in Science in Artificial Intelligence													
Award Title		Postgraduate Diploma in Science							Exit Award Only		Yes				
Teaching and learning modalities		Lectures / Classes; Practical Sessions; Tutorials; Directed Learning; E-learning (directed); E-learning (self-directed); Group Discussions; Laboratory / Studio; Practical/workshop/Laboratories/studio sessions; Self Directed Learning; Workshops													
Delivery Modes	Award Class	Award NFQ Level	Award EQF Level	Stage	Stage NFQ Level	Stage Credits	First Intake			ISCED Code					
Both	Major	9	7	Award Stage	9	60	Sep 2025			06.1.1					
Module				Total Student Effort Module (Hours)						Allocation of Marks					
Title		Semester	Status	Credit	Total Hours	Class Contact Hours	Direct e-learning	Hours of independent learning	Work-based learning efforts	C.A. %	Project %	Skills demonstration %	Exam %	Workbased %	
Programming for Data Analysis		1	M	10	250	48	0	202	0	100	0	0	0	0	
Graph and AI		1	M	5	125	24	0	101	0	100	0	0	0	0	
Machine Learning and Pattern Recognition		1	M	10	250	48	0	202	0	100	0	0	0	0	
Research Methods		1	M	5	125	24	0	101	0	100	0	0	0	0	
Recommender Systems		2	M	10	250	48	0	202	0	100	0	0	0	0	
Deep Learning		2	M	10	250	48	0	202	0	100	0	0	0	0	
Reinforcement Learning		2	M	5	125	24	0	101	0	100	0	0	0	0	
Natural Language Processing		2	M	5	125	24	0	101	0	100	0	0	0	0	