

# **MSc in Artificial Intelligence**

# **Programme Overview**

An exciting two-year part-time programme to give current and potential AI engineers the skills, theory and recognition they need to develop in their role.

Candidates can gain a full MSc degree in this specialist area through a mixed learning process with an emphasis on practical application in the workplace.

The programme is aimed at existing information technology professionals and those migrating from associated disciplines with the necessary computing and mathematics competencies.

## Certificate in Artificial Intelligence

Participants must complete the preparatory Certificate course to the equivalent of a 2nd class honours level to be eligible for entry to the Masters, regardless of their prior qualifications or experience.

Successful completion of the preparatory Course will lead to the award of a Certificate in Artificial Intelligence by UL (Special Purpose Award, Level 8, 12 ECT credits)



Flexible Learning Centre Science and Engineering

2 years part-time (Online)



### Programme Content

### Year 1

Autumn- Cert in Artificial Intelligence	Spring	Summer
Introduction to Scientific Computing for Al	Artificial Intelligence and Machine Learning	Advanced Topics Seminars and Project Specification
Introduction to Deep Learning and Frameworks	Data Analytics	Risk, Ethics, Governance and Artificial Intelligence
Year 2: Modern Machine Learning		
Autumn	Spring	Summer
Machine Learning Applications	Deep Learning	Project/Dissertation
Machine Vision	Artificial Intelligence and Data Science Ecosystems: Theory and Practice	
Year 2: Natural Language Processing		
Autumn	Spring	
Natural Language Processing: An Introduction	Advanced Natural Language Processing	
Information Retrieval	Natural Language Understanding	
Year 2: Computer Vision		_
Autumn	Spring	
Deep Learning for Computer Vision	Geometric Computer Vision	
Machine Vision and Image Processing	Intelligent Visual Computing & Applications	_

Delivered fully online, including all exams and assessments, assessment is largely based on assignments and project work with a practical rather than theoretical focus. Modules will be delivered with associated assessment of mastery so that semester by semester there is a confirmed and measurable achievement of learning objectives that can be transferred directly and immediately to the workplace.

In Year 2, students can choose to follow the Modern Machine Learning stream, Natural Language Processing stream or Computer Vision stream. A major dissertation project will be selected and specified within the first year and completed throughout the second year.

### **Entry Requirements**

The principal entry requirement is a Level 8 honours degree, at minimum second class honours (NFQ or other internationally recognised equivalent) in a relevant engineering, computing, mathematics, science or technology discipline.

Applicants from other disciplines who have a significant mathematics or computing (i.e. programming) element in their primary degree will also be considered.

Applicants who do not meet the requirements above may be considered under the University of Limerick Recognition of Prior Learning policy.

### How to Apply

For details on how to apply and documentation required, visit : <u>www.ul.ie/gps/artificial-intelligence</u> <u>-msc-online</u>

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