

MNA-L

Master in Applied Artificial Intelligence

(Edition 2025)

First Trimester

Code	Name	CL	L	U	CA	S	UDC
EM4003	Transversal Pathways I	2.5	0	9	2	12	3
TC4057	Data Visualization	2.5	0	9	2	12	3
TC5053	Data Science and Analytics	2.5	0	9	2	12	3
		7.5	0	27	6	36	9

Second Trimester

Code	Name	CL	L	U	CA	S	UDC
OP5100	Elective I	2.5	0	9	2	12	3
TC4058	Artificial Intelligence and Machine Learning	2.5	0	9	2	12	3
TC4059	Disruptive Technologies and Industry 4.0	2.5	0	9	2	12	3
		7.5	0	27	6	36	9

Third Trimester

Code	Name	CL	L	U	CA	S	UDC
EM4004	Transversal Pathways II	2.5	0	9	2	12	3
OP5101	Elective II	2.5	0	9	2	12	3
OP5102	Elective III	2.5	0	9	2		
		7.5	0	27	6	24	6

Fourth Trimester

Code	Name	CL	L	U	CA
OP4049	Transdisciplinary Elective	2.5	0	9	2
OP5103	Elective IV	2.5	0	9	2
OP5104	Elective V	2.5	0	9	2
		7.5	0	27	6

Fifth Trimester

Code	Name	CL	L	U	CA	S	UDC
OP5105	Elective VI	2.5	0	9	2		
OP5106	Elective VII	2.5	0	9	2		
TC5054	Integrative Project	2.5	0	9	2	12	3
		7.5	0	27	6	12	3

Academic credits

- CL** The letter "CL" indicates the number of class-hours per week.
- L** The letter "L" indicates the number of laboratory-hours per week.
- U** The letter "U" represents the equivalent time in courses lasting 15 weeks (semester) and 12 weeks (trimester), of weekly work that the student dedicates to the course to meet its objectives. They include the "class hours", as well as the time dedicated to the student's independent work.

CA The letters "CA" represents the number of semester credit hour of the course.

S Semanas de duración

UDC Load Units

Program Outcomes

Justification

The current demand for professionals specialized in areas such as data science, software engineering and business intelligence is palpable in companies of all sizes and types, whether traditional or virtual. This trend is further driven by the increasing adoption of frontier technologies, especially in the context of Industry 4.0. With the emergence of new technologies such as the Internet of Things (IoT) and autonomous mobility, the need for specialists in these areas becomes even more evident. However, it is important to note that, in recent years, the convergence of knowledge and technologies has shown that the most successful solutions to address business challenges lie within the field of Artificial Intelligence (AI). In other words, to effectively address today's challenges, it is essential to integrate AI into our strategies and processes. AI empowers and enriches solutions, offering a more holistic approach to solving real problems across all subject areas.

In this context, within the professional impact postgraduate programs, the Master's Degree in Applied Artificial Intelligence is an educational alternative specially designed to meet these demands of the current market, framing proposals with a solid AI component and allowing companies to make a successful transition to the Industry 4.0 model. In addition, it contributes significantly to the construction and development of smart cities, where technology and innovation play a fundamental role in improving the quality of life of citizens and sustainable development.

Program Objectives

Train professionals who are agents of change in organizations, who carry out innovation, technological development, and technology transfer through solutions based on artificial intelligence and emerging technologies.

Target Audience

- Professionals from any field interested in acquiring solid knowledge of artificial intelligence to consolidate and transform their company through solutions based on emerging technologies, aiding in decision-making and business intelligence.
- Professionals interested in designing and proposing intelligent and innovative solutions supported by studies and analysis through data science, smart software, autonomous mobility, or a sensor network, bolstering the competitiveness and leadership of organizations.
- Engineering professionals seeking to explore innovative solutions supported by artificial intelligence, with the aim of transforming the processes and operations of the organization.

Applicant Profile

Knowledge:

- Basic knowledge in linear algebra, statistics, and probability to understand the mathematical foundations behind AI algorithms.
- Intermediate level of programming, particularly in Python, due to its relevance in the AI ecosystem because of its wide range of specialized modules and libraries.

Skills:

- Ability to analyze complex problems to identify patterns, trends, and underlying relationships, facilitating the formulation of effective solutions using AI techniques.
- Skills in using technologies to efficiently collect and process data and collaborate with multidisciplinary teams through online communication platforms and software.
- Skills for reading comprehension in the English language, essential for accessing and assimilating relevant literature and technical documentation in the field of AI.
- Ability to communicate elementary results of analysis and projects to a variety of audiences.

Attitudes:

- Innate interest in exploring new ideas, technologies, and methods in the pursuit of innovative solutions.
- Willingness to face challenges and adapt to rapid changes in the field of AI.
- Commitment to developing solutions that are ethically responsible and promote privacy and human rights.

Learning Outcomes

At the end of the program, the graduate will be able to:

Knowledge:

- Demonstrate advanced mastery of the theoretical and practical principles of artificial intelligence to propose solutions to real

and complex problems encountered in businesses.

- Apply advanced data modeling techniques and machine learning algorithms to extract meaningful information from complex and large-scale datasets.
- Analyze and implement strategies that optimize processes from areas such as software engineering, smart manufacturing, autonomous mobility, and generally any operation arising from a company with technologies involved in Industry 4.0.

Skills:

- Communicate the results of your professional work clearly, effectively, and contextually both orally and in writing, in addition to utilizing data visualization. This communication skill should be adapted to the needs and characteristics of different audiences.
- Collaborate in multidisciplinary teams and lead artificial intelligence projects from conception to implementation and evaluation.
- Contribute ethically and proactively with leadership in the professional community of your specialty, demonstrating a commitment to excellence and integrity in all interactions and activities.

Attitudes:

- Be creative in finding innovative solutions to complex problems using AI techniques.
- Have persistence and resilience to face challenges and overcome obstacles in the development of AI projects.
- Understand the ethical and social implications of AI to develop solutions that are ethically responsible and promote human well-being and equity.

Campus that offer this program

Campus	Number of periods offered	From	Closed for new students
Programas en Línea	Complete	Trimester Sep - Dec 2025	

Last update: 09/May/2024