

[MTA001] Mathematics Applied to AI

GENERAL INFORMATION

Studies	MASTER'S DEGREE IN ARTIFICIAL INTELLIGENCE		Subject	?	
Semester	1	Course	1	Mention / Field of specialisation	
Character	COMPULSORY				
Plan	2024	Modality	Face-to-face	Language	CASTELLANO/ENGLISH
Credits	3	Hours/week	0	Total hours	33 class hours + 42 non-class hours = 75 total hours

PROFESSORS

CERNUDA GARCIA, CARLOS

REQUIRED PREVIOUS KNOWLEDGE

Subjects	Knowledge
(No specific previous subjects required)	(No previous knowledge required)

LEARNING RESULTS

LEARNING RESULTS	KC	SK	AB	ECTS
M1T101 - Know, understand and apply the mathematical foundations of Artificial Intelligence.			x	2,6
M1T120 - Apply acquired knowledge and problem-solving skills in new, unfamiliar or changing environments within broader (or multidisciplinary) contexts related to their area of study.		x		0,4
Total:				3

KC: Knowledge or Content / SK: Skills / AB: Abilities

SECONDARY LEARNING RESULTS

MIRA01 [!] *Aplicar los conocimientos matemáticos más comunes utilizados en problemáticas de Inteligencia Artificial*

LEARNING ACTIVITIES

	CH	NCH	TH
Development and writing of records, reports, presentations, audiovisual material, etc. on projects/work experience/challenges/case studies/experimental investigations carried out individually and/or in teams	4 h.	19 h.	23 h.
Conducting tests, giving presentations, presenting defences, taking examinations and/or doing checkpoints	2 h.		2 h.
Presentation by the teacher in the classroom, in participatory classes, of concepts and procedures associated with the subjects	20 h.		20 h.
Carrying out exercises and solving problems individually and/or in teams	4 h.	16 h.	20 h.

EVALUATION SYSTEM

	W
Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory exercises, term projects, challenges and problems	30%
Individual written and/or oral tests or individual coding/programming tests	70%

MAKE-UP MECHANISMS

Individual written and/or oral tests or individual coding/programming tests

CH - Class hours: 30 h.

NCH - Non-class hours: 35 h.

TH - Total hours: 65 h.

MIRA02 [!] *Aplicar los conocimientos adquiridos y su capacidad de resolución de problemas en entornos nuevos, poco conocidos o cambiantes dentro de contextos más amplios (o multidisciplinares) relacionados con su área de estudio*

LEARNING ACTIVITIES

	CH	NCH	TH
Development and writing of records, reports, presentations, audiovisual material, etc. on projects/work experience/challenges/case studies/experimental investigations carried out individually and/or in teams	3 h.	7 h.	10 h.

EVALUATION SYSTEM

	W
Reports on the completion of exercises, case studies,	100%

MAKE-UP MECHANISMS

(No mechanisms)

computer exercises, simulation exercises, laboratory exercises, term projects, challenges and problems

CH - Class hours: 3 h.

NCH - Non-class hours: 7 h.

TH - Total hours: 10 h.

CONTENTS

Calculus applied to AI

Algebra applied to AI

Statistics applied to AI

Mathematical modelling and formulation applied to AI

LEARNING RESOURCES AND BIBLIOGRAPHY

Learning resources

Moodle Platform

Bibliography

(No bibliography)