

[MTA002] Programming for 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 |
| Credits | 3 | Hours/week | 0 | Total hours | 33 class hours + 42 non-class hours = 75 total hours |

PROFESSORS

CHICOTE GUTIERREZ, BEATRIZ

REQUIRED PREVIOUS KNOWLEDGE

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

LEARNING RESULTS

| LEARNING RESULTS | KC | SK | AB | ECTS |
|--|----|----|----|----------|
| M1T102 - Know, understand and apply the fundamentals of Artificial Intelligence programming. | | | x | 2,6 |
| M1T121 - Possess the learning skills that will enable them to continue studying in a manner that will be largely self-directed or autonomous. | | x | | 0,4 |
| Total: | | | | 3 |

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

SECONDARY LEARNING RESULTS

MIRA03 [!] *Dominar el uso de las librerías y herramientas más comunes de programación en el ámbito de la 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 | 6 h. | 18 h. | 24 h. |
| Personal study and flexible development of concepts and subjects using active dynamics, to foster more meaningful learning | | 5 h. | 5 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 | 2 h. | 12 h. | 14 h. |

EVALUATION SYSTEM

Presentation and defence of exercises, case studies, computer practical work, simulation practical work, laboratory practical work, term projects, end of degree project, master's thesis, challenges and problems
 Individual written and/or oral tests or individual coding/programming tests

W

60%

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.

MIRA04 [!] *Poseer las habilidades de aprendizaje que les permitan continuar estudiando de un modo que habrá de ser en gran medida autodirigido o autónomo*

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 | 3 h. | 7 h. | 10 h. |

individually and/or in teams

EVALUATION SYSTEM

w

MAKE-UP MECHANISMS

Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory exercises, term projects, challenges and problems

100%

(No mechanisms)

CH - Class hours: 3 h.

NCH - Non-class hours: 7 h.

TH - Total hours: 10 h.

CONTENTS

Programming tools and languages for AI

Introduction to algorithms

Object-oriented programming

AI libraries and frameworks

LEARNING RESOURCES AND BIBLIOGRAPHY

Learning resources

Moodle Platform

Bibliography

Pilgrim, M., & Willison, S. (2009). Dive into python 3 (Vol. 2). New York, NY, USA: Apress.