

## PROGRAMMES IN ENGLISH 2022 / 2023

### Escuela Politécnica Superior - EPS

### Higher Technical School of Engineering

Universidad Autónoma de Madrid • Campus de Cantoblanco (E MADRID04)

C/ Francisco Tomás y Valiente,11. CP.28049. Madrid

## Undergraduate

### COMPUTER SCIENCE AND ENGINEERING

#### SECOND YEAR

Code Number	Name	Period:		ECTS
		1 <sup>st</sup> sem	2 <sup>nd</sup> sem	
19954	Algorithms and Advanced Data Structures	1		6

#### THIRD YEAR

17834	Computer Architecture	1		6
19956	Computer Systems Project*	1		6
17844	Software Engineering Project*	2		6

#### FOURTH YEAR

18771	Mobile App Development*	2		6
20088	Compilers*	1		6
19957	High Performance Computing	1		6

\* Limited places: Depending on the number of applications, the course may not be offered **Semester 1 = Autumn / Semester 2 = Spring**

## Master

If you want to attend Master's degree courses at UAM, we need your home university has a bilateral agreement to at Master Level. In addition, we will ask for your admission to the Master Coordinator. Please send us the following documents in addition to your learning agreement ( [ori.eps@uam.es](mailto:ori.eps@uam.es))

- 1) Curriculum vitae/resume/CV
- 2) Transcript of records
- 3) A statement of purpose.

Code Number	Name	Period: 1 <sup>st</sup> sem. 2 <sup>nd</sup> sem.	ECTS
<b>Máster Title:</b>	<b>ICT Research and Innovation</b> (the following subjects are taught in English)	1 year	60
<b>Subject code</b>	<b>Subject title</b>	<b>Semester</b>	<b>ECTS</b>
32432	Model-Driven Software Development	1	6
32428	Characterization of Biological Networks and Topologies	2	6
<b>Máster Title:</b>	<b>Image Processing and Computer Vision</b> (the following subjects are taught in English)	2 years	120
<b>Subject code</b>	<b>Subject title</b>	<b>Semester</b>	<b>ECTS</b>
33245	Tomography and 3D Imaging applied to Biomedical Samples	2	6
33239	Applied video sequences analysis	2	6
33244	People detection and biometric recognition	2	6
33489	Fundamentals and Basic Tools for Deep Learning	2	6
33243	Vision for multiple or moving cameras	2	6
<b>Máster Title:</b>	<b>Formal Methods Computer Engineering:</b> all subjects taught in English except 33137 (in Spanish)	1 year	60
33143	Design and analysis of security protocols	1	6
33135	Formal model-driven software development	1	6
33136	Design of bio-inspired algorithms	1	6

<b>Máster Title: Deep Learning for Audio and Video Signal Processing</b>		<b>: all</b>	<b>1 year</b>	<b>60</b>
<b>subjects taught in English</b>				
33412	Deep Learning fundamentals and basic tools		1	8
33413	Review of Established Signal Processing Techniques		1	4
33414	Deep Learning for audio signal processing		1	6
33415	Deep Learning for image signal processing		1	6
33416	Deep Learning for video signal processing		1	6
33417	Biometrics & Applied Intelligence		2	6
33418	High Performance Computing for Deep learning		2	6
33419	Research methodologies and seminars		2	6
33420	Master thesis		2	12