



POLITÉCNICA

Universidad Politécnica de Madrid
School of Computer Engineering
Academia year
2023-24



BACHELOR COURSES TAUGHT IN ENGLISH

CODE	COURSE TAUGHT IN ENGLISH	ECTS	YEAR	SEMESTER	Program	LEARNING GUIDE (CONTENT, TEACHERS...ETC.)	RESTRICTIONS	OBSERVATIONS
<u>BACHELOR DEGREE IN INFORMATICS (COMPUTER) ENGINEERING</u>								
105000002	Logic	6	1	1S	10II	Learning Guide Link		Learning guide in Spanish
105000013	Programación I	6	1	1S	10II	Learning Guide Link		
105000005	Calculo	6	1	2S	10II	Learning Guide Link		
105000159	Human-Computer Interaction	6	1	2S	10II	Learning Guide Link		
105000015	Programación II	6	1	2S	10II	Learning Guide Link		
105000007	Probabilidades y estadística I	6	1	2S	10II	Learning Guide Link		
105000046	Building up communications skills	3	3	1S	10II	Learning Guide Link		
105000394	Programming project	3	3	2S	10II	Learning Guide Link		
105000443	Programming Scalable Systems	3	4	2S	10II	Learning Guide Link		Learning guide in Spanish
105000057	Semantic Web, Linked Data And Knowledge Graphs	3	4	1S	10II	Learning Guide Link		
105000395	Introduction to bioinformatics and biocomputing	3	4	1S	10II	Learning Guide Link		
105000444	Multimedia	3	4	2S	10II	Learning Guide Link		
105000011	English for Professional and Academic Communication	6	4	1S	10II	Learning Guide Link		
105000011	English for Professional and Academic Communication	6	4	2S	10II	Learning Guide Link		
105001046	Spanish for foreigners	3	3	1S	10II	Learning Guide Link	[1]	Learning guide in Spanish
105001046	Spanish for foreigners	3	3	2S	10II	Learning Guide Link	[1]	Learning guide in Spanish
105000045	Español Profesional Y Academico	3	3	2S	10II	Learning Guide Link	[4]	Learning guide in Spanish

LEARNING GUIDES OF BACHELOR COURSES TAUGHT IN SPANISH

BACHELOR DEGREE IN INFORMATICS (COMPUTER) ENGINEERING	Learning Guide Link	General information and schedules
BACHELOR IN MATHEMATICS AND INFORMATICS	Learning Guide Link	General information and schedules
BACHELOR DEGREE IN DATA SCIENCE AND ARTIFICIAL INTELLIGENCE	Learning Guide Link	General information and schedules

**MASTER COURSES TAUGHT IN ENGLISH:
AVAILABLE ONLY FOR MASTER STUDENTS AND UNDERGRADUATE WITH MORE THAN 180 ECTS PASSED**

[EUROPEAN MASTER DEGREE IN SOFTWARE ENGINEERING; Link for schedules and evaluations dates https://emse.fi.upm.es/en/](https://emse.fi.upm.es/en/)


103000482	Requirements Engineering	6	1	1S	10AM	Learning Guide Link		
103000485	Software Project Management	4	1	1S	10AM	Learning Guide Link		
103000486	Models and Methods for Process Improvement and Assessment	4	1	1S	10AM	Learning Guide Link		
103000488	Software Metrics	4	1	1S	10AM	Learning Guide Link		
103000489	Verification and Validation	6	1	1S	10AM	Learning Guide Link		
103000739	Adaptative Systems	4	1	1S	10AM	Learning Guide Link		
103001022	Deep Learning And Software Engineering	4	1	1S	10AM	Learning Guide Link		
103001025	E-health: Promoting Active and Healthy Ageing	4	1	1S	10AM	Learning Guide Link		
103000540	Critical Software	3	1	1S	10AM	Learning Guide Link		
103000541	Data Mining: Data Engineering	4	1	1S	10AM	Learning Guide Link		
103000603	Challenges for accessible computing for people with functional diversity	4	1	1S	10AM	Learning Guide Link		
103000544	Management, Relationships and Communication in Working Groups	4	1	1S	10AM	Learning Guide Link		
103000545	Agile Software Development: Agile Practices and Agile Usability	4	1	1S	10AM	Learning Guide Link		
103000738	Computer Security	4	1	1S	10AM	Learning Guide Link		
103000483	Software Design	4	1	2S	10AM	Learning Guide Link	[2]	
103000484	Software Architecture	4	1	2S	10AM	Learning Guide Link	[2]	
103000487	Software Quality Management	4	1	2S	10AM	Learning Guide Link	[2]	
103000657	Correctness by Construction	6	1	2S	10AM	Learning Guide Link		
103001023	Strategic Management & Entrepreneurship	4	1	2S	10AM	Learning Guide Link		
103000542	Experimental Software Engineering	6	1	2S	10AM	Learning Guide Link	[2]	
103000538	Agent Based Software Engineering	6	1	2S	10AM	Learning Guide Link	[2]	

MASTER'S PROGRAMME IN DIGITAL INNOVATION; Link for schedules and evaluations dates <https://www.fi.upm.es/?pagina=2759&idioma=english>

103001004	Data Visualization	3	1	1S	10AZ	Learning Guide Link		
103001003	Big Data	3	1	1S	10AZ	Learning Guide Link		
103000853	Data Processes	4.5	1	1S	10AZ	Learning Guide Link		
103000826	Machine Learning	4,5	1	1S	10AZ	Learning Guide Link	[2]	
103000825	Statistical Data Analysis	4.5	1	1S	10AZ	Learning Guide Link		
103000866	Massively Parallel Machine Learning	4.5	1	1S	10AZ	Learning Guide Link		
103000854	Cloud Computing And Big Data Ecosystems Design	4.5	1	1S	10AZ	Learning Guide Link		
103000867	Open Data And Knowledge Graphs	4.5	1	1S	10AZ	Learning Guide Link		
103000851	Intelligent Systems	4.5	1	1S	10AZ	Learning Guide Link		
103000836	Data Management and Knowledge in Health	4	2	1S	10AZ	Learning Guide Link		
103000885	E Health: Promoting Active And Healthy Ageing	4,5	2	1S	10AZ	Learning Guide Link		
103000865	Data mining and time series	3	2	1S	10AZ	Learning Guide Link		
103000839	Complex data in health	4,5	2	1S	10AZ	Learning Guide Link	[3]	Available for undergraduate students
103000863	Data Analysis	4,5	2	1S	10AZ	Learning Guide Link		
103000840	Devices and Biometric Applications for e-Health	4	2	1S	10AZ	Learning Guide Link		
103000934	Software Verification and Validation	6	1	1S	10AZ	Learning Guide Link		
103000933	Requirements Engineering	6	1	1S	10AZ	Learning Guide Link		Link not available
103000937	Fundamentals of Finance	6	1	1S	10AZ	Learning Guide Link		Not available on 23-24
103000938	Blockchain And Services For Fintech Enterprise Integration	5	1	1S	10AZ	Learning Guide Link		Not available on 23-24
103001036	Hci: Introduction And Design Methods	6	1	1S	10AZ	Learning Guide Link		
103000871	Programming Of User Interfaces	6	1	1S	10AZ	Learning Guide Link		
103000877	Challenges For Accessible Computing For People With Functional Diversity	4	1	1S	10AZ	Learning Guide Link		
103000874	User Experience And Mobile Interaction	6	1	1S	10AZ	Learning Guide Link		
103000878	Human-computer Interaction Seminars I	2	1	1S	10AZ	Learning Guide Link		
103000890	Human-computer Interaction Seminars II	2,5	2	1S	10AZ	Learning Guide Link		
103000880	Accessible Design Of Interactive Systems	4,5	2	1S	10AZ	Learning Guide Link		
103000881	Adaptive Systems	4,5	2	1S	10AZ	Learning Guide Link		
103000882	Assistive Products	4,5	2	1S	10AZ	Learning Guide Link		
103000887	Management, Relationships And Communication Working Groups	4	2	1S	10AZ	Learning Guide Link		

103000879	Virtual Intelligent Systems	4	2	1S	10AZ	Learning Guide Link		
103000842	Introduction to innovation and entrepreneurship management	6	1	1S	10AZ	Learning Guide Link	[2]	
103000848	I&E Study	6	2	1S	10AZ	Learning Guide Link	[2]	
103000888	Programming For Data Science	5	1	2S	10AZ	Learning Guide Link		
103000855	Data Science Seminars	4.5	1	2S	10AZ	Learning Guide Link		
103000856	Deep Learning	3	1	2S	10AZ	Learning Guide Link		
103000834	Graph Analysis And Social Networks	3	2	2S	10AZ	Learning Guide Link		
103000829	Information Retrieval, Extraction And Integration	4.5	1	2S	10AZ	Learning Guide Link		
103000859	Experimentation In Software Engineering	4.6	2	2S	10AZ	Learning Guide Link		
103000835	Ethic/legal/social aspects in Data Science	3	1	2S	10AZ	Learning Guide Link		
103000935	Data Mining	4	1	2S	10AZ	Learning Guide Link		
103000939	Seminars On Systems For Finance	4,5	1	2S	10AZ	Learning Guide Link		Not available on 23-24
103000872	Evaluation Of Interactive Systems	3	1	2S	10AZ	Learning Guide Link		
103000873	Human-Computer Interaction Project	6	1	2S	10AZ	Learning Guide Link		
103000857	Image Mining	3	1	2S	10AZ	Learning Guide Link		Link not available
103000845	Entrepreneurship & Business Modelling	6	1	2S	10AZ	Learning Guide Link	[2]	
103000843	Introduction to Technology watch and competitive intelligence	1	1	2S	10AZ	Learning Guide Link	[2]	
103000844	I&E Seminars	5	1	2S	10AZ	Learning Guide Link	[2]	
103000846	Launching of digital-based products and services	2	1	2S	10AZ	Learning Guide Link	[2]	Link not available

COURSE REQUIREMENTS OR RESTRICTIONS

[1]	For students below A2 Spanish Level. Students with higher level, please contact with the course coordinators.	
[2]	<p>There is a quota for mobility students.</p> <p>If you want to be enrolled on this course, you should apply first on the following Office Form (link in next row and/or QR) before 31st December (Spring Semester) and 1st June (Autumn Semester), and the course coordinators will accept/deny applicants before the beginning of the semester.</p> <p>Please do not include this course on your Learning Agreement until you were accepted by the course coordinators. Learning Agreements including those courses will not be signed until the approval of the course coordinators.</p> <p style="text-align: center;">https://forms.office.com/e/VA6YeLUTWD</p>	
[3]	Available for undergraduate students	
[4]	Required at least Spanish B2 level.	