[MSD003] Rapid prototyping systems

GENERAL INFORMATION

Studies	MASTER DEGREE IN SMART ENERGY SYSTEMS	**Subject**	Hardware and rapid prototyping
Semester 2	**Course** 1	**Mention / Field of specialisation**	
Character OPTIONAL			
Plan 2022	**Modality** Face-to-face	**Language**	CASTELLANO
Credits 3	**Hours/week** 0	**Total hours**	44 class hours + 31 non-class hours = **75 total hours**

PROFESSORS

GONZALEZ JIMENEZ, DAVID

REQUIRED PREVIOUS KNOWLEDGE

Subjects	**Knowledge**
MICROPROCESSORS	MATLAB & Simulink
	Labview

LEARNING RESULTS

LEARNING RESULTS	KC	SK	AB	ECTS
MSR101 - Implementing energy management systems through real-time rapid prototyping equipment		x		2,8
MSR171 - Ability to work in multidisciplinary teams and in a multilingual environment	x		x	0,04
MSR251 - Develops a project in the field of energy systems in a practical application context		x		0,16
			Total:	**3**

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

SECONDARY LEARNING RESULTS

RMS117 [!] *Implementar sistemas de gestión de energía a través de equipos de prototipado rápido en tiempo real*

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.	4 h.	8 h.
Presentation by the teacher in the classroom, in participatory classes, of concepts and procedures associated with the subjects	10 h.		10 h.
Practical work in workshops and/or laboratories, individually and/or in teams	30 h.	23 h.	53 h.

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	45%	Individual written and/or oral tests or individual coding/programming tests
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	40%	
Prototype / Product	15%	

CH - Class hours: 44 h.
NCH - Non-class hours: 27 h.
TH - Total hours: 71 h.

RMS251 [!] *Desarrolla un proyecto del ámbito de los sistemas energéticos en un contexto de aplicación práctica*

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.	4 h.

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

CH - Class hours: 0 h.
NCH - Non-class hours: 4 h.
TH - Total hours: 4 h.

CONTENTS

LEARNING RESOURCES AND BIBLIOGRAPHY

Learning resources	Bibliography
Moodle Platform Subject notes Slides of the subject	https://labur.eus/ikrTa