UNIVERSIDAD DE CASTILLA - LA MANCHA

GUÍA DOCENTE

1. General information

Course: SOLAR POWER SYSTEMS
Code: 56452
Type: ELECTIVE
ECTS credits: 6
Degree: 357 - UNDERGRADUATE DEGREE PROGRAMME IN ELECTRICAL ENGINEERING (TO)
Academic year: 2023-24
Center: 303 - E.DE INGENIERÍA INDUSTRIAL Y AEROESPOACIAL DE TOLEDO
Group(s): 40
Year: Sin asignar
Duration: C2
Main language: Spanish
Second language: English
Use of additional languages:
English Friendly: N
Web site:
Bilingual: N

Lecturer: **OCTAVIO ARMAS VERGEL** - Group(s): **40**

Building/Office	Department	Phone number	Email	Office hours
Sabatini/1.57	MECÁNICA ADA. E ING. PROYECTOS	926295462	octavio.armas@uclm.es	

Lecturer: **JUAN CARLOS BALLESTEROS APARICIO** - Group(s): **40**

Building/Office	Department	Phone number	Email	Office hours
	FÍSICA APLICADA		Juan.Ballesteros@uclm.es	

Lecturer: **MIGUEL CAÑAS CARRETON** - Group(s): **40**

Building/Office	Department	Phone number	Email	Office hours
Edificio Sabatini. Despacho 1.37	INGENIERÍA ELÉCTRICA, ELECTRÓNICA, AUTOMÁTICA Y COMUNICACIONES	926053506	miguel.canas@uclm.es	

Lecturer: **ISMAEL PAYO GUTIERREZ** - Group(s): **40**

Building/Office	Department	Phone number	Email	Office hours
Sabatini/1.38	INGENIERÍA ELÉCTRICA, ELECTRÓNICA, AUTOMÁTICA Y COMUNICACIONES	926051579	ismael.payo@uclm.es	

2. Pre-Requisites

Not established

3. Justification in the curriculum, relation to other subjects and to the profession

Not established

4. Degree competences achieved in this course

Course competences

Code	Description
A03	To have the capability to gather and interpret relevant data (normally within the area of study) to make judgements that include a reflection on themes of a social, scientific or ethical nature.
A04	To be able to transmit information, ideas, problems and solutions to both a specialist and non-specialist audience.
A10	Ability to produce and develop projects in the field of Electrical Engineering aimed at, and in accordance with the knowledge acquired as established in section 5 of Order CIN/351/2009, the construction, remodelling, repair, conservation, demolition, manufacturing, installation, assembly or use of: structures, mechanical equipment, power installations, electrical and electronic installations, industrial plants and installations and processes of manufacture and automatization.
A13	Ability to take the initiative to solve problems, take decisions, creativity, critical reasoning and ability to communicate and transmit knowledge, skills and abilities in Electrical Engineering.
A15	Ability to work to specifications and comply with obligatory rules and regulations.
H05	Knowledge of the systems of exploitation of solar energy

5. Objectives or Learning Outcomes

Course learning outcomes

Description

6. Units / Contents

Unit 1:
Unit 2:
Unit 3:
Unit 4:
Unit 5:
Unit 6:
Unit 7:

7. Activities, Units/Modules and Methodology

Training Activity	Methodology	Related Competences (only degrees before RD 822/2021)	ECTS	Hours	As	Com	Description
Class Attendance (theory) [ON-SITE]	Lectures	A03 A10 A13 A15 H05	1.1	27.5	N	-	
Laboratory practice or sessions [ON-SITE]	Group Work	A03 A10 H05	0.4	10	N	-	
Practicum and practical activities report writing or preparation [OFF-SITE]	Problem solving and exercises	A03 A10 H05	1	25	Y	Y	
Study and Exam Preparation [OFF-SITE]	Self-study	A03 A04 A13 A15 H05	1.5	37.5	N	-	
Writing of reports or projects [OFF-SITE]	Project/Problem Based Learning (PBL)	A03 A04 A13 H05	1.1	27.5	Y	N	
Project or Topic Presentations [ON-SITE]	Combination of methods	A03 A10 H05	0.66	16.5	Y	N	
Individual tutoring sessions [ON-SITE]	Guided or supervised work		0.16	4	N	-	
Final test [ON-SITE]	Assessment tests	A03 A04 A13 A15 H05	0.08	2	Y	N	
		Total:	**6**	**150**			
		Total credits of in-class work: 2.4					**Total class time hours: 60**
		Total credits of out of class work: 3.6					**Total hours of out of class work: 90**

As: Assessable training activity
Com: Training activity of compulsory overcoming (It will be essential to overcome both continuous and non-continuous assessment).

8. Evaluation criteria and Grading System

Evaluation System	Continuous assessment	Non-continuous evaluation*	Description
Oral presentations assessment	0.00%	0.00%	
Practicum and practical activities reports assessment	0.00%	40.00%	
Assessment of problem solving and/or case studies	0.00%	0.00%	
Final test	0.00%	60.00%	
Total:	**0.00%**	**100.00%**	

According to art. 4 of the UCLM Student Evaluation Regulations, it must be provided to students who cannot regularly attend face-to-face training activities the passing of the subject, having the right (art. 12.2) to be globally graded, in 2 annual calls per subject , an ordinary and an extraordinary one (evaluating 100% of the competences).

9. Assignments, course calendar and important dates

Not related to the syllabus/contents	
Hours	**hours**

10. Bibliography and Sources

Author(s)	Title/Link	Publishing house	City	ISBN	Year	Description
Colmenar Santos, Antonio; Carta González, José Antonio; Calero Pérez, Roque; Castro Gil, Manuel Alonso; Collado Fernández, Eduardo	Centrales de energías renovables: generación eléctrica con energías renovables.	Pearson		9788483229972	2012	
Antonio Luque, Steven Hegedus	Handbook of Photovoltaic Science and Engineering	Willey		9780470721698	2003	
Perpiñán Lamigueiro, Óscar	Diseño de sistemas fotovoltaicos	Progensa		9788495693723	2012	
Augustin McEvoy, Tom Markvart , Luis Castaner	Practical Handbook of Photovoltaics: Fundamentals and Applications	AcademicPress		9780123859341	2011	