

**1. General information****Course:** CONVENTIONAL ENERGY SYSTEMS**Type:** ELECTIVE**Degree:** 357 - UNDERGRADUATE DEGREE PROGRAMME IN ELECTRICAL ENGINEERING (TO)**Center:** 303 - E.DE INGENIERÍA INDUSTRIAL Y AEROSPOACIAL DE TOLEDO**Year:** Sin asignar**Main language:** Spanish**Use of additional languages:****Web site:****Code:** 56448**ECTS credits:** 6**Academic year:** 2023-24**Group(s):** 40**Duration:** First semester**Second language:** English**English Friendly:** Y**Bilingual:** N**Lecturer:** MARIA REYES GARCIA CONTRERAS - Group(s): 40

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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
A02	To know how to apply knowledge to work or vocation in a professional manner and possess the competences that are usually demonstrated by the formulation and defence of arguments and the resolution of problems in the field of study.
A04	To be able to transmit information, ideas, problems and solutions to both a specialist and non-specialist audience.
A05	To have developed the learning skills necessary to undertake subsequent studies with a greater degree of autonomy.
A06	Command of a second foreign language at B1 level of the Common European Framework of Reference for Languages.
A07	Knowledge of Information Technology and Communication (ITC).
A09	Ethical and professional commitment.
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.
A18	To have organization and planning skills used in businesses and other institutions and organizations.
A19	Ability to work in a multilingual and multidisciplinary environment.
H01	Knowledge of conventional systems of electrical energy generation

5. Objectives or Learning Outcomes**Course learning outcomes**

Not established.

Additional outcomes**6. Units / Contents****Unit 1:**

Unit 1.1

Unit 1.2

Unit 1.3

Unit 1.4

Unit 2:

Unit 2.1

Unit 2.2

Unit 3:

Unit 3.1

Unit 3.2

Unit 3.3

Unit 3.4

Unit 3.5

Unit 3.6

Unit 4:

Unit 4.1

Unit 4.2

Unit 5:

Unit 5.1

Unit 5.2

Unit 5.3

Unit 5.4

Unit 5.5

Unit 6:

Unit 6.1

Unit 6.2

Unit 6.3

Unit 6.4

Unit 6.5

Unit 6.6

Unit 7:

Unit 7.1

Unit 7.2

Unit 7.3

Unit 7.4

Unit 7.5

Unit 8:

Unit 8.1

Unit 8.2

Unit 8.3

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		1	25	N	-	
Class Attendance (practical) [ON-SITE]	Combination of methods		0.3	7.5	Y	Y	
Problem solving and/or case studies [ON-SITE]	Combination of methods		0.3	7.5	N	-	
Study and Exam Preparation [OFF-SITE]			3.6	90	N	-	
Progress test [ON-SITE]	Assessment tests		0.15	3.75	Y	N	
Final test [ON-SITE]	Assessment tests		0.15	3.75	Y	Y	
Group tutoring sessions [ON-SITE]	Group Work		0.5	12.5	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
Theoretical papers assessment	0.00%	0.00%	
Final test	0.00%	100.00%	
Practicum and practical activities reports assessment	0.00%	0.00%	
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
Progress test [PRESENCIAL][Assessment tests]	3.75
Final test [PRESENCIAL][Assessment tests]	3.75
Unit 1 (de 8):	
Activities	Hours
Class Attendance (theory) [PRESENCIAL][Lectures]	3

Study and Exam Preparation [AUTÓNOMA][]	4
Group tutoring sessions [PRESENCIAL][Group Work]	1
Unit 2 (de 8):	
Activities	Hours
Class Attendance (theory) [PRESENCIAL][Lectures]	1
Study and Exam Preparation [AUTÓNOMA][]	1
Unit 3 (de 8):	
Activities	Hours
Class Attendance (theory) [PRESENCIAL][Lectures]	2
Study and Exam Preparation [AUTÓNOMA][]	3
Group tutoring sessions [PRESENCIAL][Group Work]	.5
Unit 4 (de 8):	
Activities	Hours
Class Attendance (theory) [PRESENCIAL][Lectures]	5
Class Attendance (practical) [PRESENCIAL][Combination of methods]	2.5
Problem solving and/or case studies [PRESENCIAL][Combination of methods]	2.5
Study and Exam Preparation [AUTÓNOMA][]	25
Group tutoring sessions [PRESENCIAL][Group Work]	2
Unit 5 (de 8):	
Activities	Hours
Class Attendance (theory) [PRESENCIAL][Lectures]	4
Class Attendance (practical) [PRESENCIAL][Combination of methods]	2.5
Problem solving and/or case studies [PRESENCIAL][Combination of methods]	2.5
Study and Exam Preparation [AUTÓNOMA][]	18
Group tutoring sessions [PRESENCIAL][Group Work]	3
Unit 6 (de 8):	
Activities	Hours
Class Attendance (theory) [PRESENCIAL][Lectures]	4
Problem solving and/or case studies [PRESENCIAL][Combination of methods]	2.5
Study and Exam Preparation [AUTÓNOMA][]	18
Group tutoring sessions [PRESENCIAL][Group Work]	3
Unit 7 (de 8):	
Activities	Hours
Class Attendance (theory) [PRESENCIAL][Lectures]	4
Class Attendance (practical) [PRESENCIAL][Combination of methods]	2.5
Study and Exam Preparation [AUTÓNOMA][]	17
Group tutoring sessions [PRESENCIAL][Group Work]	2
Unit 8 (de 8):	
Activities	Hours
Class Attendance (theory) [PRESENCIAL][Lectures]	2
Study and Exam Preparation [AUTÓNOMA][]	4
Group tutoring sessions [PRESENCIAL][Group Work]	1
Global activity	
Activities	hours
Class Attendance (theory) [PRESENCIAL][Lectures]	25
Problem solving and/or case studies [PRESENCIAL][Combination of methods]	7.5
Study and Exam Preparation [AUTÓNOMA][]	90
Progress test [PRESENCIAL][Assessment tests]	3.75
Final test [PRESENCIAL][Assessment tests]	3.75
Group tutoring sessions [PRESENCIAL][Group Work]	12.5
Class Attendance (practical) [PRESENCIAL][Combination of methods]	7.5
Total horas: 150	

10. Bibliography and Sources						
Author(s)	Title/Link	Publishing house	Cítv	ISBN	Year	Description
JOSÉ A. AGÜERA	TERMODINÁMICA LÓGICA Y MOTORES TÉRMICOS	CIENCIA 3		84-86204-98-4	1999	
JOSÉ M. SALA LIZARRAGA	COGENERACIÓN. ASPECTOS TERMODINÁMICOS, TECNOLÓGICOS Y ECONÓMICOS	SEUPV-AZEHU		84-7585-571-7	1999	
JOSÉ M. SALA LIZARRAGA	TERMODINÁMICA DE FLUIDOS Y EL MÉTODO DE ANÁLISIS EXERGÉTICO	SEUPV-AZEHU		84-7587-080-4	1987	
JUAN J. HERNANDEZ, JOSÉ RODRÍGUEZ, JOSEP SANZ ARGENT	TRANSMISION DE CALOR PARA INGENIEROS	SPUCLM		978-84-8427-737-8	2010	
OCTAVIO ARMAS, ANGEL MORENO, JOSÉ AGÜERA	EVALUACIÓN DE SISTEMAS ENERGÉTICOS	SPUCLM		9788484277156	2009	
	http://uclm.dmebooks.com/dcod/shop2012/user/1216918-9788484277156-Evaluacin-de-sistemas-energéticos.html					

VICENTE BERMUDEZ	TECNOLOGIA ENERGÉTICA	SPUPV	84-7721-868-4	2000
FRANCISCO PAYRI, JOSÉ M ^a	MOTORES DE COMBUSTION	REVERTÉ-	978-84-291-4802-2	2011
DESANTES	INTERNA ALTERNATIVOS	SPUPV		