1. BASIC INFORMATION

Course	Internal combustion engines
Degree program	Bachelor's Degree in Industrial Systems Engineering
School	School of Architecture, Engineering, Science and Computing
Year	3º
ECTS	6
Credit type	Elective
Language(s)	English
Delivery mode	Face to face
Semester	S1
Academic year	27-28
Coordinating professor	

2. PRESENTATION

In this course…

3. LEARNING OUTCOMES

Knowledge

KNO24: Knowledge of the thermodynamic and mechanical operation of combustion engines
- Characterize the operating cycles of an internal combustion engine
- Identify the phases of load renewal in an internal combustion engine
- Describe the functionality and specifications of the construction components of internal combustion engines
- Describe the parameters involved in the electronic control of an internal combustion engine

Competences

CP14: Integrate analysis with critical thinking in a process of evaluating different ideas or professional possibilities and their potential for error, based on evidence and objective data that lead to effective and valid decision-making.

4. CONTENT

- Combustion
- Load Renewal
- Construction elements
- Electronic motor control

5. TEACHING-LEARNING METHODOLOGIES

The types of teaching-learning methodologies used are indicated below:

- Master class
- Problems-based learning
- Workshop-based learning

6. LEARNING ACTIVITIES

Listed below are the types of learning activities and the number of hours the student will spend on each one:

Campus-based mode:

Learning activity	Number of hours
Master class	10
Seminars	20
Problem solving	34
Written reports and essays	6
Workshop and/or laboratories activities	10
Self-study	60
Debates	5
Evaluation tests	5
TOTAL	**150**

7. ASSESSMENT

Listed below are the assessment systems used and the weight each one carries towards the final course grade:

Campus-based mode:

Sistema de evaluación	Peso mín. %	Peso máx. %
Assessment tests	50	60
Reports	0	10
Case study or problem solving	15	40
Performance evaluation	5	5
Laboratory/workshop notebook	5	10

When you access the course on the *Campus Virtual*, you'll find a description of the assessment activities you have to complete, as well as the delivery deadline and assessment procedure for each one.

8. SCHEDULE

This table shows the delivery deadline for each assessable activity in the course:

Campus-based mode:

Assessable activities	Deadline

This schedule may be subject to changes for logistical reasons relating to the activities. The student will be notified of any change as and when appropriate.

9. BIBLIOGRAPHY

The main reference work for this subject is:

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The recommended Bibliography is:

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10. EDUCATIONAL GUIDANCE, DIVERSITY AND INCLUSION UNIT

From the Educational Guidance, Diversity and Inclusion Unit we offer support to our students throughout their university life to help them reach their academic achievements. Other main actions are the students inclusions with specific educational needs, universal accessibility on the different campuses of the university and equal opportunities.

From this unit we offer to our students:

1. Accompaniment and follow-up by mean of counselling and personalized plans for students who need to improve their academic performance.
2. In terms of attention to diversity, non-significant curricular adjustments are made in terms of methodology and assessment for those students with specific educational needs, pursuing equal opportunities for all students.
3. We offer students different extracurricular resources to develop different competences that will encourage their personal and professional development.
4. Vocational guidance through the provision of tools and counselling to students with vocational doubts or who believe they have made a mistake in their choice of degree.

Students in need of educational support can write to us at:

orientacioneducativa@universidadeuropea.es

11.   ONLINE SURVEYS

Your opinion matters!

The Universidad Europea encourages you to participate in several surveys which help identify the strengths and areas we need to improve regarding professors, degree programs and the teaching-learning process.

The surveys will be made available in the "surveys" section in virtual campus or via e-mail.

Your assessment is necessary for us to improve.

Thank you very much for your participation.