

1. BASIC INFORMATION

Course	Aerospace Ecology
Degree program	Degree in Aerospace Engineering of aircrafts
School	Arquitectura, Ingeniería y Diseño
Year	Fourth
ECTS	6
Credit type	Optative
Language(s)	English
Delivery mode	Face to face
Semester	First/Second
Academic year	2019-20
Coordinating professor	

2. PRESENTATION

This course belongs to the “Motopropulsion III” module:

- Aerospace ecology 6 ECTS (fourth year)
- Addendum to Motopropulsion 6 ECTS (fourth year)

3. COMPETENCIES AND LEARNING OUTCOMES

Core competencies:

- CB1: That students have demonstrated knowledge and understanding in a field of study that part of the basis of general secondary education, and is usually found at a level that, while supported by advanced textbooks, includes some aspects that will knowledge of the forefront of their field of study.
- CB2: That students can apply their knowledge to their work or vocation in a professional manner and have competences typically demonstrated through devising and sustaining arguments and solving problems within their field of study.
- CB3: That students have the ability to gather and interpret relevant data (usually within their field of study) to make judgments that include reflection on relevant social, scientific or ethical.
- CB4: To allow students to communicate information, ideas, problems and solutions both to a specialized and non-specialized audience.
- CB5: That students have developed those learning skills necessary to undertake further studies with a high degree of autonomy.

Cross-curricular competencies:

- CT15: Compile and interpret data to make judgments that include relevant social, scientist, and ethical issues, taking fundamental rights respect into consideration, as well as the democratic principles, gender equality, solidarity, environment protection, universal accessibility and design for all, and culture of peace (consultancy).
- CT16 (N3): To communicate and convey information, ideas and skills in the student's field of specialization, either in writing or orally, both to skilled and unskilled audiences (communication skills).
- CT17 (N2): Addressing the issues and challenges related to their area of expertise with flexibility, initiative, innovation, and dynamism (entrepreneurial profile).

Notes: UNIQUE LEVEL: Competence developed at one level. Level 1 (N1): awareness about the importance of competences and basic application of it to several situations. Level 2(N2): interiorization and skillful handling of competences. Level 3 (N3): Full interiorization and handling of competences at any needed situation.

Specific competencies:

- CE28. Knowledge about alternative fuels and engines as well as sources of pollution (competence for students taking the corresponding optative subject).
- CE32. Ability to multidisciplinary work.

Learning outcomes:

1. To carry out studies about the technologies and the engineering procedures related to the skills of this module.
2. To conceptualize, from a series of requirements and prior information, an engineering problem, and to propose the approach to solve it and to find the best solution. All this related to the skills of this module.

4. CONTENT

- Fuels and alternative energies
- Alternative engines
- Acoustic pollution
- Gas contamination
- Specific regulations

5. TEACHING-LEARNING METHODOLOGIES

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

- Objectives and interests survey
- Lecture-based class
- Group research or group problem solving

- Practical case studies

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:

Type of educational activity	Number of hours
Lecture-based class	20 h
Integrative of team work	60 h
Self-study	50 h
Mentoring, academic monitoring and assessment	20 h
TOTAL	150 h

7. ASSESSMENT

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

Assessment criteria	Weight (%)
1. Exam, test and other type of assessment.	30%-35%
2. Reports, articles and informs.	15%-30%
3. Alternative system of assessment.	15%-30%
4. Conferences, company-tour visit and experiences in situ	10%-10%
6. Transversal skills (rubric)	10%-15%

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.

7.1. First exam period

To pass the course in the first exam period, you must obtain a final course grade of at least 5 out of 10 (weighted average).

In order to be evaluated you must have a minimum of 50% attendance.

In the case, when the student do not reached the minimum required to pass any evaluable activity. The final grade will be:

- The mean average when the mean value is less than or equal to 4.
- 4 if the value of the mean average is greater than 4.

The grade will be considered as NP (Not Presented) when the student has not delivered any evaluable activity of which they are part of the weighted average.

7.2. Second exam period

To pass the course in the second exam period, you must obtain a final course grade of at least 5 out of 10 (weighted average).

In order to be evaluated you must have a minimum of 50% attendance.

In the case, when the student do not reached the minimum required to pass any evaluable activity. The final grade will be:

- The mean average when the mean value is less than or equal to 4.
- 4 if the value of the mean average is greater than 4.

The grade will be considered as NP (Not Presented) when the student has not delivered any evaluable activity of which they are part of the weighted average.

8. BIBLIOGRAPHY

Recommended bibliography will be updated.

9. DIVERSITY MANAGEMENT UNIT

Students with specific learning support needs:

Curricular adaptations and adjustments for students with specific learning support needs, in order to guarantee equal opportunities, will be overseen by the Diversity Management Unit (UAD: Unidad de Atención a la Diversidad).

It is compulsory for this Unit to issue a curricular adaptation/adjustment report, and therefore students with specific learning support needs should contact the Unit at unidad.diversidad@universidadeuropea.es at the beginning of each semester.