COMILLAS
UNIVERSIDAD PONTIFICIA
ICAI ICADE CIHS

Syllabus
2025 - 2026

GENERAL INFORMATION

Data of the subject	
Subject name	Environmental Engineering
Subject code	DIM-GITI-421
Mainprogram	Bachelor's Degree in Engineering for Industrial Technologies
Involved programs	Grado en Ingeniería en Tecnologías Industriales [Fourth year]
Credits	4,5 ECTS
Type	Obligatoria (Grado)
Department	Department of Mechanical Engineering
Coordinator	María del Mar Cledera Castro
Schedule	See schedule for each group in the calendar
Office hours	Concertar quotes by email

Teacher Information	
Teacher	
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DESCRIPTION OF THE SUBJECT

Contextualization of the subject

Course contents

Contents

Topic 1: Introduction, Sustainability and Industrial Ecology

Topic 2: Water Engineering

-Water pollution.

-Potabilization of catchment water.

-Wastewater purification.

Topic 3: Air Pollution Engineering.

-Atmospheric pollution.

-Dispersion of atmospheric pollution.

-Calculation of chimneys and equipment.

Topic 4: Soil Contamination

-Municipal solid waste (MSW) and industrial waste (MSW).

-MSW management.

-Planning and management of sorting plants and landfills.

EVALUATION AND CRITERIA

The use of AI to produce full assignments or substantial parts thereof, without proper citation of the source or tool used, or without explicit permission in the assignment instructions, will be considered plagiarism and therefore subject to the University's General Regulations.

Evaluation activities	Evaluation criteria	Weight
Laboratory reports or notebooks. Previous preparation of the laboratory practices will also be valued.	Punctuality Attitude in the laboratory Report submitted Minimum grade 5.0	15
Active participation in the activities proposed by the teacher, group or individual, developed throughout the course.	The manner of presentation and the material provided by the student will be evaluated. Minimum grade 5.0	15
The exams will have two different parts: Theory (either multiple-choice or short questions) (40 per cent) Practical cases or problems (30 percent).	Incorrect answers are penalized in the multiple-choice questions. This part has a minimum grade of 4.0. In the problems or practical cases, both the final result and the procedure used will be evaluated, emphasizing the technical feasibility of the result adopted.	70

Grading

Both the theoretical part of the course and the practical part (laboratory + work/presentation/discussion) must be passed in order to obtain the weighted average.

Theory grade (minimum grade 5.0 out of 10.0):

30% practical content exam (problems): 10% Inter + 20% Final.
40% theoretical content exam (multiple-choice questions and/or short questions): 15% Inter + 25 % Final

Practical note (minimum grade 5.0 out of 10.0):

15% Lab grade (minimum grade 5.0 out of 10.0 on average of all practicals).
15% paper/presentation/discussion grade (minimum grade of 5.0 out of 10.0)

The student who has failed the theory part of the course must recover only that part with a grade higher or equal to 5.0.
The student who has failed the practical part of laboratory and/or work/presentation/discussion must recover only that part with a grade higher or equal to 5.0.
Students who have failed both parts (theory and practical) must make up both parts with a grade equal to or higher than 5.0 in each of them.

Both the theoretical part of the course and the practical part (laboratory) must be passed in order to obtain the weighted average (at least a 5.0 in each of them).

After fulfilling this criterion, the grade for the extraordinary exam will be:

70 % extraordinary exam.
15 % laboratory practices grade.
15 % activities and works.

BIBLIOGRAPHY AND RESOURCES

Basic References

- **Ciencia y Tecnología del Medioambiente**
  - Contreras López, Alfonso; Molero Meneses, Mariano
  - Editorial UNED