

# Addendum to the Course Information Year 2021-2022

Possible adaptations due to COVID 19:

- **Scenario A:** Face-to-face reduced schedule
- **Scenario B:** Face-to-face suspended schedule

Bachelor in Electrical Engineering

## General Information of the course

**Name:** Engineering Thermodynamics

**Code:** 606310203

**Year:** 2

**Semester:** 1

## Course Information

<http://www.uhu.es/etsi/estudiantes-2/incoming-students/>

## SCENARIO A

### Syllabus adaptation

The syllabus will only be adapted in those cases in which it is impossible to teach all the contents indicated therein in this exceptional situation and always bearing in mind that the competencies indicated in the certificate verification report must be ensured.

### Adequacy of training activities and teaching methodologies

Training activity	Type*
Theoretical sessions	Face-to-face
Problem solving sessions	Face-to-face
Sessions in laboratory or computer classroom	Face-to-face

\* Face-to-face/Online

### Description of teaching methodologies used for each training activity

- **Theory sessions and problem solving sessions.**

As established in Article 2.1. of Instruction 1.3.3 for the adaptation of University Teaching to the health requirements derived from the Covid-19 epidemic during the Academic Course, the highest possible percentage of face-to-face activity will be maintained that the health restrictions allow to maintain the greatest adequacy possible to the verified curriculum. Therefore, as long as health restrictions do not prevent it, these sessions will continue to be face-to-face. In case of preventing it, the sessions will be carried out by videoconference using Zoom.

#### Description of teaching methodologies used for each training activity (continued)

- **Practical sessions in the laboratory.**

As established in Article 2.3. of Instruction 1.3.3 for the adaptation of University Teaching to the health requirements derived from the Covid-19 epidemic during the Academic Course, small laboratory groups will be taught in any case in face-to-face format

#### Adaptation of evaluation system (continuous assessment)

Evaluation system	Type*	Percentage
Attendance at laboratory practices, conducting tests, and preparing a memory of experimental results	Asynchronous	15
Theory and problems exam	Face-to-face	55
Subject work	Face-to-face	30
	Face-to-face	

\* Face-to-face/ Synchronous/ Asynchronous

## Description of evaluation system

The overall qualification of the student will be established based on the result obtained in each of the evaluation tests (compulsory and voluntary) that will be carried out throughout the semester. The tests to be carried out will be the following:

- Attendance at **laboratory practices, conducting tests, and preparing a report of experimental results** (MANDATORY). The practices will take place in the ETSI de Máquinas y Motores Térmicos. Attendance will be compulsory. Students must come having read and understood the practice script. The execution of the essays and the subsequent writing of the reports will be carried out in groups of 3-5 students. It will be a requirement to pass the course that the practice mark is equal to or greater than 3 out of 10.
- A **written partial exam of theory and problems**. This partial exam will be done (or not) at the discretion of the teacher according to the course of the teaching of the course. If it is done, it will be a requirement to pass the course that the partial exam grade is equal to or greater than 2 out of 10.
- A **global written test of theory and problems**. In this exam, all the contents taught in the subject will be asked, including both the Thermodynamics block (topics 1-5) and Thermotechnics (topics 6-9). It will be a requirement to pass the course that the overall exam grade is equal to or greater than 4.5 out of 10.
- A **Subject work**. At the discretion of the professor, and according to the progress of the course, this work may be voluntary or COMPULSORY. In case of being a volunteer, the work will require a minimum grade of 6 out of 10 to be taken into account in the overall grade, and its weight in it will be 10%. In case of being MANDATORY, it will entail a defense and presentation in class, and its weight in the overall grade will be 30%.

## Description of evaluation system (continued)

### QUALIFICATION

The overall grade for the subject will be calculated by weighing the grade of the different tests as follows:

In the most general case, the overall rating would be calculated as:

- Overall mark =  $0.15 \times \text{Practice mark} + 0.35 \times \text{Midterm exam mark} + 0.5 \times \text{Overall exam mark}$

In the case of no midterm exam, their weighting would pass to the global exam. For instance:

- Overall mark =  $0.15 \times \text{Practice mark} + 0.85 \times \text{Overall exam mark}$

If the possibility of doing so is offered, and the student successfully performs volunteer work, their grade will be:

- Overall grade =  $0.15 \times \text{Practice grade} + 0.3 \times \text{Midterm exam grade} + 0.45 \times \text{Overall exam grade} + 0.1 \times \text{Volunteer work grade}$

Now, if the work is COMPULSORY, the weight of the exams would be reduced, and the grade would be weighted as follows:

- Overall mark =  $0.15 \times \text{Practice mark} + 0.15 \times \text{Midterm exam mark} + 0.40 \times \text{Overall exam mark} + 0.3 \times \text{Compulsory work mark}$

In any case, it will be a requirement to pass the course that the overall average grade of all the tests is equal to or greater than 5, and that all the minimum grade requirements mentioned above have been satisfied: > 3 in the practicals, > 2 in the midterm exam (if done), and > 4.5 in the comprehensive exam. Students who carry out any type of activity (work, practice or exam) from the beginning of the course

## Adaptation of evaluation system (final assessment)

Sistema de Evaluación	Formato*	Porcentaje
Comprehensive exam of theory, problems and practices	Face-to-face	100

\* Face-to-face/ Synchronous/ Asynchronous

## Description of evaluation system

In order to benefit from the Single Final Assessment system, the student must notify the coordinator of the subject by email in the first two weeks of teaching it, or in the two weeks following enrollment if it has occurred after the start of the course. Outside of the aforementioned deadlines, the student may only request the Single Final Assessment for exceptional reasons (work reasons, illness or disability) that must be duly justified. For more information, see the UHU Evaluation Regulation of March 13, 2019 (article 8).

The students under this system will be evaluated in a single academic act by means of the following tests:

- Theory test 25%. It will consist of several theoretical questions to be reasonably resolved.
- Proof of problems 60%. It will consist of several problems to be solved numerically.
- Practice test 15%. It will consist of several questions of both a theoretical and numerical nature related to the experiences developed in the laboratory sessions.

It will be a requirement to pass the course that the overall average grade of the three tests is equal to or greater than 5, and that a minimum grade of 3.5 out of 10 has been obtained in each of them.

Students who carry out any type of activity (work, practice or exam) from the beginning of the course without having expressly stated their intention to take part in the Single Final Assessment will be considered by default accepted to Continuous Assessment and in no way may they be considered in the minutes as "Not presented"

## SCENARIO B

### Syllabus adaptation

The syllabus will only be adapted in those cases in which it is impossible to teach all the contents indicated in it in this exceptional situation and always bearing in mind that the competencies indicated in the certificate verification report must be ensured.

### Adequacy of training activities and teaching methodologies

Training activity	Type*
Theory sessions on the contents of the program	Online
Problem solving sessions	Online
Practical sessions in specialized laboratories /computer rooms	Online
	Online

\* In scenario B, all the training activities will be carried out *Online*

### Description of teaching methodologies used for each training activity

- **Theory sessions and problem solving sessions.**

As established in Article 3. of Instruction 1.3.3 for the adaptation of University Education to the health requirements derived from the Covid-19 epidemic during the Academic Year, Scenario B is a completely non-classroom teaching scenario. Therefore, in this Scenario, these sessions will be carried out by videoconference using Zoom.

- **Practical sessions in the laboratory.**

As established in Article 3. of Instruction 1.3.3 for the adaptation of University Education to the health requirements derived from the Covid-19 epidemic during the Academic Year, Scenario B is a completely non-classroom teaching scenario. At this stage, if the practices could not be carried out in person, then they would be carried out remotely, combining videoconference sessions with the remote management of equipment by the students.

## Adaptation of evaluation system (continuous assessment)

Evaluation system	Type*	Percentage
Attendance at laboratory practices, conducting tests, and preparing a memory of experimental results	Online	15
Theory and problems test	Online	55
Subject work	Online	30
	Online	

\* In scenario B, all the evaluation systems will be carried out *Online*

### Description of evaluation system

The overall qualification of the student will be established based on the result obtained in each of the evaluation tests (compulsory and voluntary) that will be carried out throughout the semester. The tests to be carried out will be the same as in Scenario A (see breakdown and detailed information on page 3). The overall grade for the subject will also be calculated by weighing the mark of the different tests in the same way as in Scenario A (see page 4):

#### QUALIFICATION

The overall grade for the subject will be calculated by weighing the grade of the different tests as follows:

In the most general case, the overall rating would be calculated as:

- Overall mark =  $0.15 \times \text{Practice mark} + 0.35 \times \text{Midterm exam mark} + 0.5 \times \text{Overall exam mark}$

In the case of no midterm exam, their weighting would pass to the global exam. For instance:

- Overall mark =  $0.15 \times \text{Practice mark} + 0.85 \times \text{Overall exam mark}$

If the possibility of doing so is offered, and the student successfully performs volunteer work, their grade will be:

- Overall grade =  $0.15 \times \text{Practice grade} + 0.3 \times \text{Midterm exam grade} + 0.45 \times \text{Overall exam grade} + 0.1 \times \text{Volunteer work grade}$

Now, if the work is **COMPULSORY**, the weight of the exams would be reduced, and the grade would be weighted as follows:

- Overall mark =  $0.15 \times \text{Practice mark} + 0.15 \times \text{Midterm exam mark} + 0.40 \times \text{Overall exam mark} + 0.3 \times \text{Compulsory work mark}$

In any case, it will be a requirement to pass the course that the overall average grade of all the tests is equal to or greater than 5, and that all the minimum grade requirements mentioned above have been satisfied: > 3 in the practicals, > 2 in the midterm exam (if done), and > 4.5 in the comprehensive exam.

Students who carry out any type of activity (work, practice or exam) from the beginning of the course without having expressly stated their intention to take part in the Single Final Assessment will be considered by default accepted to Continuous Assessment and in no way may they be considered in the minutes as "Not presented".

Evaluation system	Type*	Percentage
Comprehensive exam of theory, problems and practices	Online	100

\* In scenario B, all the evaluation systems will be carried out *Online*

### Description of evaluation system

In order to benefit from the Single Final Assessment system, the student must notify the coordinator of the subject by email in the first two weeks of teaching it, or in the two weeks following enrollment if it has occurred after the start of the course. Outside of the aforementioned deadlines, the student may only request the Single Final Assessment for exceptional reasons (work reasons, illness or disability) that must be duly justified. For more information, see the UHU Evaluation Regulation of March 13, 2019 (article 8).

The students under this system will be evaluated in a single academic act by means of the following tests:

- Theory test 25%. It will consist of several theoretical questions to be reasonably resolved.
- Proof of problems 60%. It will consist of several problems to be solved numerically.
- Practice test 15%. It will consist of several questions of both a theoretical and numerical nature related to the experiences developed in the laboratory sessions.

It will be a requirement to pass the course that the overall average grade of the three tests is equal to or greater than 5, and that a minimum grade of 3.5 out of 10 has been obtained in each of them.

Students who carry out any type of activity (work, practice or exam) from the beginning of the course without having expressly stated their intention to take part in the Single Final Assessment will be considered by default accepted to Continuous Assessment and in no way may they be considered in the minutes as "Not presented"