

## 28610 - Installations: the Basics

### Información del Plan Docente

Academic Year	2017/18
Faculty / School	175 - Escuela Universitaria Politécnica de La Almunia
Degree	422 - Bachelor's Degree in Building Engineering
ECTS	6.0
Year	2
Semester	First semester
Subject Type	Basic Education
Module	---

### 1.General information

#### 1.1.Introduction

#### 1.2.Recommendations to take this course

#### 1.3.Context and importance of this course in the degree

#### 1.4.Activities and key dates

### 2.Learning goals

#### 2.1.Learning goals

#### 2.2.Importance of learning goals

### 3.Aims of the course and competences

#### 3.1.Aims of the course

#### 3.2.Competences

### 4.Assessment (1st and 2nd call)

#### 4.1.Assessment tasks (description of tasks, marking system and assessment criteria)

### 5.Methodology, learning tasks, syllabus and resources

#### 5.1.Methodological overview

**The learning process designed for this subject is based on the following:**

The current subject Installations: the basics is conceived as a stand-alone combination of contents, yet organized into three fundamental and complementary forms, which are: the theoretical concepts of each teaching unit, the solving of problems or resolution of questions and laboratory work, at the same time supported by other activities.

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### 5.2.Learning tasks

The programme offered to the student to help them achieve their target results is made up of the following activities... Involves the active participation of the student, in a way that the results achieved in the learning process are developed, not taking away from those already set out, the activities are the following:

- Face-to-face generic activities:

\* Theory Classes.

\* Practical Classes.

- Generic non-class activities:

\* Study and understanding of the theory taught in the lectures.

\* Understanding and assimilation of the problems and practical cases solved in the practical classes.

\* Preparation of seminars, solutions to proposed problems, etc.

\* Preparation of laboratory workshops, preparation of summaries and reports.

\* Preparation of the written tests for continuous assessment and final exams.

### 5.3.Syllabus

The program of the subject includes seven topics:

Topic 1: Principles of Thermodynamics. Thermal expansions and heat transfer (conduction, convection and radiation). Hygrometry.

Topic 2: Fluid dynamics.

Topic 3: The electric field and direct current circuits. The magnetic field and alternating current circuits. Principles of the electromagnetic induction.

### 5.4.Course planning and calendar

#### Class hall sessions & work presentations timetable

The dates of the final exams will be those that are officially published at <http://www.eupla.es/secretaria/academica/examenes.html>.

The written assessment tests will be related to the following topics:

- Test 1: Topic 1.

- Test 2: Topic 2.

- Test 3: Topic 3.

### 5.5.Bibliography and recommended resources

The updated Bibliography of the subject is consulted through the library web page:

<http://psfunizar7.unizar.es/br13/eBuscar.php?tipo=a>

- Tipler, Paul A.. Física/ Paul A. Tipler. 2ª edición Barcelona [etc.] : Reverté, D.L. 1990. [Volumen I]. Versión en español.

- Serway, Raymond A.. Física para ciencias e ingeniería / Raymond A. Serway, Robert J. Beichner . - 5ª ed. México [etc.] : McGraw-Hill, cop. 2002. Volumen I. Versión en español.

- Serway, Raymond A.. Física para ciencias e ingeniería / Raymond A. Serway, Robert J. Beichner . - 5ª ed. México [etc.] : McGraw-Hill, cop. 2002. Volumen II. Versión en español.

- Tipper, Paul,A.. Física/ Paul A. Tipler. 2ª edición Barcelona [etc.] : Reverté, D.L. 1990. [Volumen II]. Versión en

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español.

- Burbano de Ercilla, Santiago. Física general. Tomo 1, Estática, cinemática y dinámica / Santiago Burbano de Ercilla, Enrique Burbano García, Carlos Gracia Muñoz. - 32ª ed. Madrid : Tébar, D.L. 2006. Versión en español.

### Materials

Material	Format
Topic theory notes	Paper/repository
Topic problems	
Topic theory notes	Digital/Moodle
Topic presentations	E-Mail
Topic problems	
Related links	