

## 28960 - Building installations

### Syllabus Information

**Academic Year:** 2019/20

**Subject:** 28960 - Building installations

**Faculty / School:** 201 - Escuela Politécnica Superior

**Degree:** 437 - Degree in Rural and Agri-Food Engineering  
583 - Degree in Rural and Agri-Food Engineering

**ECTS:** 5.0

**Year:** 4

**Semester:** Second semester

**Subject Type:** Optional

**Module:** ---

## 1.General information

### 1.1.Aims of the course

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

### 1.3.Recommendations to take this course

## 2.Learning goals

### 2.1.Competences

### 2.2.Learning goals

### 2.3.Importance of learning goals

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

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

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

### 4.1.Methodological overview

The methodology followed in this course is oriented towards the achievement of the learning objectives. A wide range of teaching and learning tasks are implemented, such as: Theoretical sessions, Problem-based learning, a Project based learning and Computer lab sessions.

### 4.2.Learning tasks

The course includes the following activities:

- Theoretical sessions (2,5 ECTS):
  - The teacher explains the theoretical content of each session. One of the objectives of this activity will be the promoting of the participation of the students and cooperative learning.
  - Problem-solving sessions. The teacher will resolve specific problems.
- Practical sessions (2,5 ECTS):
  - Problem-based learning. Students, working individually or in groups, gain knowledge and skills by working to respond to problems and questions.
  - Computer lab sessions. Students use technical software.
  - Project-based learning. Students gain knowledge and skills by working with examples of real projects.

### 4.3.Syllabus

The course will address the following topics:

#### Theory Program

##### Section 1. Coldwater supply and distribution

1. Basic regulation.
2. Components of the installation.
3. Calculating the installation.

##### Section 2. Domestic hot water production and distribution

1. Basic regulation.
2. Components of the installation.
3. Calculating the installation.

##### Section 3. Water evacuation

1. Basic regulation.
2. Components of the installation.
3. Calculating the installation.

##### Section 4. Fire protection installation

1. Basic regulation.
2. Components of the installation.
3. Calculating the installation.

##### Section 5. Emergency electrical installations

1. Basic regulation.
2. Components of the installation.
3. Calculating the installation.

#### Practical program

1. Calculating a water supply installation for a building in the agricultural and/or food processing domain.
2. Calculating a water evacuation installation for a building in the agricultural and/or food processing domain.
3. Calculating the fire protection installations for a building in the agricultural and/or food processing domain.
4. Calculating the emergency lighting installation for a building in the agricultural and/or food processing domain.

### 4.4.Course planning and calendar

Week	Theoretical sessions (h)	Practical sessions (h)	Individual work (h)	Total (h)
1	1	0	1,5	2,5
2	2	2	6	10
3	2	2	6	10
4	2	2	6	10
5	2	2	6	10
6	2	2	6	10
7	2	2	6	10
8	2	2	6	10
9	2	2	6	10
10	2	2	6	10
11				
12	2	2	6	10
13	2	2	6	10

14	2	2	6	10
15	0	1	1,5	2,5
<b>Total hours</b>	25	25	75	125

#### 4.5. Bibliography and recommended resources

- BB** España. Ministerio de Industria, Comercio y Turismo. Reglamento de Seguridad Contra Incendios en los Establecimientos Industriales RSCIEI (Real Decreto 2267/ 2004, de 3 de diciembre) y Guía Técnica de Aplicación (octubre 2007) / [Ministerio de Industria, Comercio y Turismo]. Madrid : Paraninfo, D.L. 2008
- BB** España. Ministerio de la Vivienda. Código técnico de la edificación. Edición septiembre 2009 Madrid : La Ley, 2009
- BC** Arizmendi Barnes, Luis Jesús. Cálculo y normativa básica de las instalaciones en los edificios. Tomo 1, Instalaciones hidráulicas, gases combustibles y de ventilación / Luis Jesús Arizmendi. 7ª ed. renovada Pamplona : EUNSA, 2005
- BC** Arizmendi Barnes, Luis Jesús. Cálculo y normativa básica de las instalaciones en los edificios. Tomo 2, Instalaciones energéticas / Luis Jesús Arizmendi . 6ª. ed. renovada Pamplona : EUNSA, 2003
- BC** España. Dirección General de la Vivienda, la Arquitectura y el Urbanismo. Normas tecnológicas de la edificación NTE. Instalaciones : diseño, cálculo, construcción, control, valoración, mantenimiento / Dirección General de la Vivienda, la Arquitectura y el Urbanismo . [14ª reimpr.] Madrid : Ministerio de Fomento, Centro de Publicaciones, 2000
- BC** Martín Sánchez, Franco. Nuevo manual de instalaciones de fontanería y saneamiento : (Adaptado al Código Técnico de la Edificación) / autor , Franco Martín Sánchez . - 3ª ed. Madrid : A. Madrid Vicente, 2008

The updated recommended bibliography can be consulted in:

<http://psfunizar7.unizar.es/br13/egAsignaturas.php?codigo=28960&Identificador=14248>