

28960 - Building installations

Syllabus Information

Academic Year: 2020/21

Subject: 28960 - Building installations

Faculty / School: 201 - Escuela Politécnica Superior

Degree: 583 - Degree in Rural and Agri-Food Engineering
437 - 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
Total hours	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://psfunizar10.unizar.es/br13/egAsignaturas.php?codigo=28960>