

Academic Year/course: 2021/22

## 30734 - Conditioning and Services 2

### Syllabus Information

**Academic Year:** 2021/22

**Subject:** 30734 - Conditioning and Services 2

**Faculty / School:** 110 - Escuela de Ingeniería y Arquitectura

**Degree:** 470 - Bachelor's Degree in Architecture Studies

**ECTS:** 6.0

**Year:** 4

**Semester:** Second semester

**Subject Type:** Compulsory

**Module:**

### 1. General information

### 2. Learning goals

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

### 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 theory sessions, problem-solving, practice sessions, visits, tutorials, exams, and autonomous work and study.

The course consists of a theoretical part in which knowledge concerning the most important building supply facilities, drainage and ventilation are introduced, whereas complementary facilities will be directly studied in practice sessions by means of applying them to projects.

Practical activities are devoted to the development of an execution project and technical detailing of the facilities of a multifamily housing building designed by students in previous courses. The exercises are performed in groups of 3-4 students during the semester and are supervised during the course, thus allowing a continuous evaluation.

Complementarily on-site works visits and practical exercises are done.

#### 4.2. Learning tasks

This course is organized as follows:

1. **Theory sessions** and problem-solving (large group).
2. **Practice sessions** (intermediate group).
  - Case study discussions.
  - Tutorial sessions.
3. **Visits** to on-site building constructions, buildings or conferences.
4. **Scheduled tutorials.**
5. **Written test**
6. Studying and individual work.

7. Performing tasks and projects individually and/or in small groups.

Total hours of student work: 150 hours (6 ECTS )

Theory credits: 75 hours (3 ECTS )

Practice credits: 75 hours (3 ECTS )

### **4.3. Syllabus**

This course will address the following topics:

- - Introduction to service facilities.
- - Facilities of cold water.
- - Hot water installations.
- - Security in case of fire.
- - Sanitation facilities.
- - Gas installations.
- - Indoor air quality.
- - Electricity installations and grounding.
- - Artificial lighting.
- - Joint telecommunications structure .
- - Vertical transportation.
- - Collection and disposal of waste.
- - Security against the action of lightning.

### **4.4. Course planning and calendar**

Theory sessions of 2 hours per week according to the School schedule.

Practice sessions of 2 hours per week according to the School schedule.

The course assignments will have partial pre-delivery and final delivery dates that will be defined at the beginning of the course.

Further information concerning the timetable, classroom, office hours, assessment dates and other details regarding this course will be provided on the first day of class or please refer to the College of Higher Engineering and Architecture (EINA) website (<https://eina.unizar.es/>) and Moodle.