

## 30720 - Conditioning and Services 1

### Syllabus Information

**Academic Year:** 2019/20

**Subject:** 30720 - Conditioning and Services 1

**Faculty / School:** 110 -

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

**ECTS:** 6.0

**Year:** 3

**Semester:** Second semester

**Subject Type:** Compulsory

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

The course consists of a theoretical and case studies part in which knowledge about passive environmental conditioning is introduced, including acoustic conditioning, climate control, and natural lighting.

In parallel, practical activities are devoted to the analysis of a project previously designed by the students and its passive design improvement. The exercise is performed in groups of 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 in class.

#### 4.2.Learning tasks

**The program that students are offered to help them achieve the expected results includes**

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

Theoretical credits : 75 hours (3 ECTS )

Practical credits : 75 hours (3 ECTS)

#### Classroom activities

1. Theoretical and problems resolution ( large group ) classes.
2. Practical classes (intermediate group).
  - Case study discussions.
  - Tutorial sessions.
3. Visits to on-site building constructions, buildings or conferences.
4. Scheduled tutoring.
5. Written test

#### Distance activities

6. Studying and individual work.
7. Performing tasks and projects individually and/or in small groups.

### **4.3.Syllabus**

- Introduction: Definition of natural conditioning of buildings; Natural conditioning along the history of architecture; Implementation in place and comfort; Intrinsic characteristics of the project and comfort.
- Passive climate conditioning: Strategies for natural climate conditioning; Natural ventilation; Sun exposure; Climatic comfort.
- Natural lighting conditioning: Daylighting strategies and their integration into the project; Dimensioning natural lighting.
- Introduction to acoustic conditioning.

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

Theoretical classes of 1 hour per week according to the School schedule.

Problems resolution classes of 2 hours every second week according to the School schedule.

Practical classes of 2 hours per week according to the to the School schedule.

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

The date of the theoretical test will be included in the School exams calendar.

#### **4.5. Bibliography and recommended resources**