Universidad Zaragoza

Academic Year/course: 2021/22

31003 - Audio and video installation projects

Syllabus Information

Academic Year: 2021/22
Subject: 31003 - Audio and video installation projects
Faculty / School: 110 - Escuela de Ingeniería y Arquitectura
Degree: 581 - Bachelor's Degree in Telecomunications Technology and Services Engineering
ECTS: 6.0
Year: 4
Semester: First semester
Subject Type: Optional
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 following teaching-learning methodologies are proposed:

Participatory master class (15 hours). Presentation of the main contents of the subject. This activity will be carried out in the classroom in person. This course is designed to provide students with the theoretical knowledge that will allow them to achieve the specified learning outcomes and competencies.

Classes of problems and practical cases in the classroom (30 hours) in which problem solving and practical cases proposed by the teacher are carried out, with the possibility of exposing them by the students individual or in groups. This activity will be carried out in the classroom in person.

Work associated with laboratory practices. The face-to-face part (M9) involves 15 hours of laboratory, divided in practical sessions lasting 2 hours. The correct use of practices also requires some prior work to prepare them and some subsequent work to analyze results and establish concepts. These activities strengthen and reinforce all specified learning outcomes and competencies. In the scripts of each practice, the specific activities to be carried out (face-to-face and non-face-to-face) and the way in which the student has to demonstrate the acquisition of the corresponding results and skills will be detailed, since this work also constitutes one of evaluation activities (E3).

Completion of tutored practical work, individual and in group, tutored by the teacher, based on the contents of the subject and related to audiovisual systems. Possibility of attending seminars or external visits related to the theme of the subject. This activity is designed to consolidate all the specified learning outcomes and competencies and its development and outcome constitutes one of the assessment activities (E2).

Supervision of the tutored practical works. During the practical work, each group of students will meet periodically with the teacher to supervise the status of the work, assess its progress and resolve doubts. This activity constitutes a part of one of the assessment activities (E2).

Tutorships. Schedule of personalized attention to the student in order to review and discuss the materials and topics presented in both theoretical and practical classes.

Evaluation. Set of theoretical-practical written tests and presentation of reports or works used in the evaluation of student progress. The detail is in the section corresponding to the evaluation activities.

If circumstances warrant, class sessions, problems, lab work, and evaluation will be remote.

4.2. Learning tasks

A01: Participatory Master Class. Exposure by the teacher of the main contents of the subject, combined with the active participation of the students. This activity will be carried out in the classroom in person. This methodology, supported by the individual student study (A07), is designed to provide students with the theoretical foundations of the subject content.

A02: Resolution of problems and cases. Resolution of problems and practical cases proposed by the teacher, with the possibility of exposing them by the students individually or in groups authorized by the teacher. This activity will be carried out in the classroom in person, and may require preparatory work by the students (A07).

A03: Laboratory work. Students will carry out 2-hour laboratory sessions. The work to be carried out will be carried out in small groups.

A06: Personalized tutor teacher-student. Schedule of personalized attention to the student in order to review and discuss the materials and topics presented in both theoretical and practical classes.

A08: Evaluation tests. Set of theoretical-practical written tests and reporting or work used in evaluating student progress. The detail is in the section corresponding to the evaluation activities.

If circumstances warrant, class sessions, problems, lab work, and evaluation will be remote.

4.3. Syllabus

The course will address the following topics:

TOPIC 1. INTRODUCTION AND OBJECTIVES
1.1 INTRODUCTION
1.2 OBJECTIVES
TOPIC 2. THEORETICAL FOUNDATIONS
2.1 INTRODUCTION
2.2 AUDIO SYSTEMS
2.3 VIDEO SYSTEMS
2.4 MULTIMEDIA SYSTEMS
2.5 LIGHTING SYSTEMS
TOPIC 3. AUDIOVISUAL WIRING
3.1 INTRODUCTION
3.2 GENERAL CHARACTERISTICS OF THE WIRING
3.3 SUMMARY OF GENERAL WIRING TYPES AND FUNDAMENTAL CHARACTERISTICS
3.4 WIRING AND AUDIO CONNECTORS
3.5 VIDEO SYSTEMS
3.6 AUDIO / VIDEO WIRING ON TWISTED PAIR
3.7 LIGHTING CONTROL WIRING
TOPIC 4. INSTALLATION DESIGN
4.1 INTRODUCTION
4.2 SYSTEM NEEDS
4.3 AUDIO SYSTEM
4.4 AUDIO AND VIDEO TRANSMISSION SYSTEM IN TWISTED PAIR.
4.5 VIDEO AND MULTIMEDIA SYSTEM
4.6 LIGHTING SYSTEMS
4.7 CONTROL SYSTEM
4.8 SCENARIO BOXES
4.9 AUXILIARY FACILITIES AND CONTROL ROOM
4.10 WIRING
4.11 SUMMARY LIST OF EQUIPMENT
TOPIC 5. DEPLOYMENT OF THE INFRASTRUCTURE .PLANS
5.1. LEGAL ASPECTS .PREPARATION AND PLANNING OF PROJECTS
TOPIC 6.VALIDATION AND TESTING OF THE INSTALLATION
6.1 TESTS OF INDIVIDUAL EQUIPMENT
6.2 TESTS OF SUBSYSTEMS
6.3 COMPLETE INSTALLATION TESTS
TOPIC 7. BUDGET

4.4. Course planning and calendar

The subject's calendar, both for classroom sessions and laboratory sessions, will be determined by the academic calendar established by the center for the corresponding course.

The start and end dates of the theoretical and problem classes, as well as the dates for completing the laboratory work and the global assessment tests will be those set by the School of Engineering and Architecture. The dates of visit and delivery and follow-up of the tutored practical works will be announced in advance in class and on the website of the subject in the digital teaching ring, https://moodle.unizar.es/.

4.5. Bibliography and recommended resources

http://psfunizar10.unizar.es/br13/egAsignaturas.php?codigo=31003