Course guide
320117 - ES - Sound Equipment

Unit in charge: Terrassa School of Industrial, Aerospace and Audiovisual Engineering
Teaching unit: 710 - EEL - Department of Electronic Engineering.
Degree: BACHELOR’S DEGREE IN AUDIOVISUAL SYSTEMS ENGINEERING (Syllabus 2009). (Compulsory subject).
Academic year: 2022  ECTS Credits: 6.0  Languages: Spanish

LECTURER

Coordinating lecturer: Javier Gago
Others: Javier Gago, Juan Mon, Wenceslao Matarin

DEGREE COMPETENCES TO WHICH THE SUBJECT CONTRIBUTES

Specific:
1. AUD: Ability to analyse, specify, build and maintain systems, equipment and headers, as well as television, audio and video installations, in both fixed and mobile environments.
2. AUD: Ability to build, exploit and manage telecommunication services and applications, understood as capture systems, analogue and digital manipulation, coding, transport, representation, processing, storage, reproduction, management and presentation of audiovisual services and multimedia information.
3. AUD: Capability for make projects and facilities to the production and recording of audio and video signals.

Transversal:
4. SELF-DIRECTED LEARNING - Level 3. Applying the knowledge gained in completing a task according to its relevance and importance. Deciding how to carry out a task, the amount of time to be devoted to it and the most suitable information sources.
5. TEAMWORK - Level 3. Managing and making work groups effective. Resolving possible conflicts, valuing working with others, assessing the effectiveness of a team and presenting the final results.
6. EFFECTIVE USE OF INFORMATION RESOURCES - Level 3. Planning and using the information necessary for an academic assignment (a final thesis, for example) based on a critical appraisal of the information resources used.

TEACHING METHODOLOGY

Face-to-face sessions
a) Classroom sessions. The lecturer presents the theoretical content of the subject, performs demonstrations using a computer, assigns exercises and answers questions.
b) Laboratory sessions. Students carry out a series of laboratory practicals.
c) Recording studio sessions. Students carry out a series of practicals in the recording studio in order to gain experience with the various pieces of equipment.
d) Assessment sessions. Individual tests on the material.
Take-home work
e) Individual study and exercise completion.
f) Completion of assignments and exercises to be handed in.

LEARNING OBJECTIVES OF THE SUBJECT

In this subject, students will become familiar with the operation of the various pieces of equipment that make up the audio chain, from capture to take-up. On completing the subject, students will be able to use, design, build, characterise and specify all of the various pieces of equipment that make up the audio chain.
STUDY LOAD

<table>
<thead>
<tr>
<th>Type</th>
<th>Hours</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours large group</td>
<td>30,0</td>
<td>20.00</td>
</tr>
<tr>
<td>Hours small group</td>
<td>30,0</td>
<td>20.00</td>
</tr>
<tr>
<td>Self study</td>
<td>90,0</td>
<td>60.00</td>
</tr>
</tbody>
</table>

Total learning time: 150 h

CONTENTS

Sound studio equipment

Description:
1- Introduction to sound studios
2- Signals and circuits of audio
3- Microphones
4- Analog mixer
5- Analog equalizers
6- Digital audio equipments
7- Digital mixer
8- Transmission and reception audio equipments
9- Power amplifiers and speakers

Specific objectives:
1- Design, analysis, assembly and use of audio circuits and systems
2- Sound techniques and connection of equipments in a sound studio

Full-or-part-time: 150h
Theory classes: 30h
Laboratory classes: 30h
Self study: 90h

GRADING SYSTEM

- First examination: 20%
- Second examination: 20%
- Laboratory: 40%
- Assignments and exercises: 20%

For those students who meet the requirements and submit to the reevaluation examination, the grade of the reevaluation exam will replace the grades of all the on-site written evaluation acts (tests, midterm and final exams) and the grades obtained during the course for lab practices, works, projects and presentations will be kept.

If the final grade after reevaluation is lower than 5.0, it will replace the initial one only if it is higher. If the final grade after reevaluation is greater or equal to 5.0, the final grade of the subject will be pass 5.0.

EXAMINATION RULES.

Students will be expected to have passed Analogue Electronics and Digital Electronics.
BIBLIOGRAPHY

Basic:

Complementary: