320117 - ES - Sound Equipment

Coordinating unit: 205 - ESEIAAT - Terrassa School of Industrial, Aerospace and Audiovisual Engineering
Teaching unit: 710 - EEL - Department of Electronic Engineering
Academic year: 2018
Degree: BACHELOR'S DEGREE IN AUDIOVISUAL SYSTEMS ENGINEERING (Syllabus 2009). (Teaching unit Compulsory)
ECTS credits: 6

Teaching staff
Coordinator: 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 heads, as well as television, audio and video installations, in both fixed and mobile environments.
2. AUD: Ability to build, exploit and manage telecommunications 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>Total learning time: 150h</th>
<th>Hours large group: 30h</th>
<th>20.00%</th>
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<tbody>
<tr>
<td></td>
<td>Hours medium group: 0h</td>
<td>0.00%</td>
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<tr>
<td></td>
<td>Hours small group: 30h</td>
<td>20.00%</td>
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<td></td>
<td>Guided activities: 6h</td>
<td>4.00%</td>
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<tr>
<td></td>
<td>Self study: 84h</td>
<td>56.00%</td>
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</table>

### Content

#### Sound studio equipment

<table>
<thead>
<tr>
<th>Learning time: 150h</th>
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<tbody>
<tr>
<td>Theory classes: 30h</td>
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<tr>
<td>Laboratory classes: 30h</td>
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<tr>
<td>Self study: 90h</td>
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</tbody>
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#### 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

### Qualification 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.
**Regulations for carrying out activities**

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

**Bibliography**

**Basic:**


**Complementary:**
