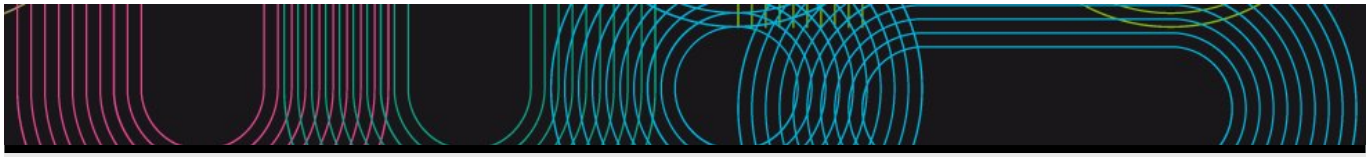

IDENTIFYING DATA				
Audiovisual Technology				
Subject	Audiovisual Technology			
Code	V05G300V01631			
Study programme	(*)Grao en Enxeñaría de Tecnoloxías de Telecomunicación			
Descriptors	ECTS Credits	Choose	Year	Quadmester
	6	Optional	3rd	2nd
Teaching language	Spanish Galician			
Department				
Coordinator	Fernández Hermida, Xulio			
Lecturers	Fernández Hermida, Xulio Torres Guijarro, María Soledad			
E-mail	xuliofh@gmail.com			
Web	http://faitic.uvigo.es			
General description	In this subject the student will learn to design audiovisual systems,with respect to sound take and sound reinforcement, image take and visual coating, synchronisation, wiring, connections and supply. Indoor and outdoor applications of audiovisual networks, as well as distinct multimedia platforms, will be analysed.			

Competencies	
Code	
A1	CG1: The ability to write, develop and sign projects in the field of Telecommunication Engineering, according to the knowledge acquired as considered in section 5 of this Law, the conception and development or operation of networks, services and applications of Telecommunication and Electronics.
A6	CG6: The aptitude to manage mandatory specifications, procedures and laws.
A45	CE36/SI3 The capacity to implement projects at places and installations for the production and recording of audio and video signals.
A47	CE38/SI5 The ability to create, modify, manage, broadcast and distribute multimedia contents taking into account the use and accessibility criteria to audiovisual, broadcasting and interactive services.
B3	The development of discussion ability about technical subjects

Learning aims		
Expected results from this subject	Training and Learning Results	
IF3.2 Capacity to prepare projects of venues and installations used for the production and recording of signals of audio and video: systems of audio-video and integration of the same. Learning aims: - Design a system of sound take and sound reinforcement given a certain enclosure, comparing different subsystems and elements. - Design a system of image take and visual coating given a certain enclosure, comparing different subsystems and elements - Design the wiring and connections of an audiovisual network for his control and supply - Create atmospheres addressing acoustic and visual appearances - Analyse different indoor and outdoor applications of Audiovisual Networks.	A1 A6 A45	B3
IF5.2 Capacity to administer, disseminate and distribute multimedia contents, attending to usabilidad and accessibility criteria of the audiovisual, diffusion and interactive services: sound. Llearning aims: - Apply and analyse distinct multimedia systems: videoconference, streaming, audiovisual databases, synchronisation, metadata processing, exchange of multimedia contents.	A1 A6 A47	B3

IF5.4 Capacity to administer, disseminate and distribute multimedia contents, attending to usabilidad and accessibility criteria of the audiovisual, diffusion and interactive services: image. Learning aims: - Apply and analyse distinct multimedia systems: videoconference, streaming, audiovisual databases, synchronisation, metadata processing, exchange of multimedia contents.	A1 A6 A47	B3
IF5.5 Capacity to administer, disseminate and distribute multimedia contents, attending to usabilidad and accessibility criteria of the audiovisual, diffusion and interactive services: combination of sound and image. Learning aims: - Apply and analyse distinct multimedia systems: videoconference, streaming, audiovisual databases, synchronisation, metadata processing, exchange of multimedia contents. - Understand which elements have an influence on audiovisual quality.	A1 A6 A47	B3

Contents

Topic	
Sound reinforcement	Sizing and distribution in the processes of take and presentation of sound
Visual overlay	Design of systems of visual take and presentation indoor and outdoor. Sizing and distribution of the visual coverage, in the processes of take and presentation
Connections and supply	Design of the wiring and connecting of an audiovisual network and his supply. Audiovisual networks, indoor and outdoor applications.
Synchronisation and control	Synchronisation of audio and video signals in an audiovisual network. Control systems. Audiovisual quality: sound/image interaction. Ambient creation addressing visual and acoustic issues
Multimedia systems	Videoconference, streaming, audiovisual databases, synchronisation, metadata procesing, exchange of multimedia contents

Planning

	Class hours	Hours outside the classroom	Total hours
Practice in computer rooms	12	0	12
Projects	7	57	64
Master Session	21	42	63
Short answer tests	2	0	2
Reports / memories of practice	0	9	9

*The information in the planning table is for guidance only and does not take into account the heterogeneity of the students.

Methodologies

	Description
Practice in computer rooms	Use and adjustment of analysis tools and algorithms, identifying which should be used in each situation posed. This methodology is targeted to competency A45.
Projects	Collaborative work in reduced groups on a complex design that applies several topics covered in the subject. The work is periodically followed-up and it fosters working in group, role sharing, information sharing, planning and public defending of results. This methodology is targeted to competencies A1, A6, A45, A47 and B3.
Master Session	Presentation by the teacher of the contents of the subject, fostering the critical discussion of the concepts. The theoretical grounds of algorithms and procedures used to resolve problems are given. This methodology is targeted to competencies A1, A6, A45, A47 and B3.

Personalized attention

Methodologies	Description
Master Session	Students will have the opportunity to solve doubts in personalised attention sessions. These sessions will take place: - Individually or in reduced groups (typically with a maximum of 2-3 students). - Unless otherwise stated, with previous appointment with the corresponding teacher. The appointment should be required and agreed by e-mail, preferably in the timetable and place officially assigned. - The group of students developing a project will attend periodic follow-up meetings.
Practice in computer rooms	Students will have the opportunity to solve doubts in personalised attention sessions. These sessions will take place: - Individually or in reduced groups (typically with a maximum of 2-3 students). - Unless otherwise stated, with previous appointment with the corresponding teacher. The appointment should be required and agreed by e-mail, preferably in the timetable and place officially assigned. - The group of students developing a project will attend periodic follow-up meetings.

Projects	Students will have the opportunity to solve doubts in personalised attention sessions. These sessions will take place: - Individually or in reduced groups (typically with a maximum of 2-3 students). - Unless otherwise stated, with previous appointment with the corresponding teacher. The appointment should be required and agreed by e-mail, preferably in the timetable and place officially assigned. - The group of students developing a project will attend periodic follow-up meetings.

Assessment

	Description	Qualification
Projects	Assessment of a project, developed through the four-month period, including the preparation and public presentation of a report. This methodology is targeted to assess competencies A1, A6, A45, A47 and B3.	40
Short answer tests	Assessment of a written exam, with brief questions and problems. This methodology is targeted to assess competencies A1, A6, A45, A47 and B3.	50
Reports / memories of practice	Assessment of a written inform that describes the work of several weeks in the computer classroom. This methodology is targeted to assess competency A45.	10

Other comments on the Evaluation

Following the study programme guidelines, the student can choose between two assessment methods: CONTINUOUS ASSESMENT, that is the recommended method linked to the educational activities and NON CONTINUOUS ASSESSMENT, only recommended for those students which can not follow the first method.

CONTINUOUS ASSESSMENT

The continuous assessment consists of the tests detailed in the following. The student opts by the continuous assessment method once she/he signs the document of commitment that will be available at week 1-3, so that she/he can begin the work in the corresponding group. Once signed, it is assumed that the student has taken the examination session and will be given the mark resulting of the application of the criterion detailed in the following, regardless of wheter she/he takes the final exam or not.

Types and assessment of activities:

Reports of the practical sessions (Weight: 10%): will be assessed around weeks 6 and 11.

Projects (Weight 40%): will be assessed around week 12

Proof of short answer (Weight: 50%): it coincides with the final exam date. It includes all the contents of the subject.

The final note corresponds to the sum of the marks obtained in all the activities weighted by the corresponding percentages. The student should obtain, at least, a grade of 4 points over ten in each type activity, and a final grade of 5 points to pass the subject.

NON CONTINUOUS ASSESSMENT

If the student does not sign the document of commitment, she/he will be evaluated through a final examination in the official date assigned by the Centre. This exam will consist of two parts, of equal weight in the final mark: a written part that may include all the topics of the subjet, and an oral part relative to additional work. This additional work should be presented previously to the teacher. The student may take part in the continuous assessment activities of the practical sessions, but they will not be assessed in her/his case. The additional work to deliver will be specified in week 6 of term, and will have to be delivered to the teacher a week before the final exam.

The student should obtain, at least, a grade of 4 points over ten in each type activity, and a final grade of 5 points to pass the subject.

Extraordinary examination session:

The student will be assessed through a final exam in the official date assigned by the school. This exam will consist of two parts, of equal weight in the final mark: a written part that may include all the topics of the subjet, and an oral part relative to additional work. This additional work should be presented previously to the teacher. The additional work to deliver will be specified in the revision of the ordinary exam, and will have to be delivered to the teacher three days before the extraordinay exam.

The student should obtain, at least, a grade of 4 points over ten in each type activity, and a final grade of 5 points to pass the subject.

Sources of information

John Eargle, Chris Foreman, **Audio Engineering for Sound Reinforcement**,

Gary Davis and Ralph Jones, **Sound Reinforcement Handbook**,

Philip Giddings, **Audio Systems Design and Installation**,

Hilary Wyatt y Tim Amyes, **Postproducción de Audio para TV y Cine**,

Rüdiger Ganslandt, Harald Hofmann, **Handbook of Lighting Design**,

In addition to the bibliography mentioned the student will be provided of:

* Outline of the practices: formulation of each practical session

* Copy of the graphic material used in the classroom

Recommendations

Subjects that are recommended to be taken simultaneously

Room Acoustics/V05G300V01635
Imaging Systems/V05G300V01633

Subjects that it is recommended to have taken before

Fundamentals of Sound and Image/V05G300V01405
Audio Systems/V05G300V01532
Video and Television/V05G300V01533