| Program | 09TT- Engineering in Telecommunication Technologies and Services |
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### Course number and name

| Number | 95000076 |
|---|---|
| Name | Multimedia Production<br>Producción Multimedia |
| Semester | Y4 - S8 |

### Credits and contact hours

| ECTS Credits | 6 |
|---|---|
| Contact hours | 60 |

| Coordinator's name | José Manuel Menéndez García |
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### Specific course information

**Description of course content**

Elective subject included in the Audio-Visual speciality. It includes the study and learning of the different types of audiovisual production, the logic and physic architecture of a production centre, and the involved equipment (for acquisition, processing and storage). The course also included several laboratory practices, organized in reduced number of team students, intended to teach them several steps of the production activity.

**List of topics to be covered**

1. Types of audivisual production: Music production, audio-visual production. Architecture and block diagrams.
2. Logic and physic architecture of a production centre
3. Signal acquisition in the production phase. Single and multidimensional capture
4. Signal processing in production: sound effects, 2D and 3D titling, croma and luma effects, animation, edition.
5. Storage means for production: magnetic, optic, solid state. Files and encapsulations (TS, AVI, MXF, MPG, AXF, BXF). Metadata schemes.

**Prerequisites or co-requisites**

It is recommended to have previously study the subject: Audiovisual systems and equipment

**Course category in the program**

| __ R (required) | __ E (elective) | _X_ SE (selective elective) |
|---|---|---|

## Specific goals for the course

**Specific outcomes of instruction**

RA1: To learn basic knowledge to build, exploit and manage applications and services related to capture, analogue and digital processing, display, storage, reproduction of audio-visual services and multimedia information.

RA2: To learn the basic knowledge to evaluate, specify, build and maintain systems, equipment and premises devoted to audio, video and television.

RA3: To learn the basic knowledge to build projects and premises devoted to production and management of audio-visual signals.

RA4: To learn the basic knowledge to build projects dealing with analysis and characterization of rooms and spaces for audio-visual production.

RA5: To learn the basic knowledge to build, manage and distribute multimedia content, according to usability and accessibility criteria applied to audio-visual and interactive services.

**Student outcomes addressed by the course**

CE-SI1, CE-SI2, CE-SI3, CE-SI4, CE-SI5

## Bibliography and supplemental materials

J. M. Menéndez y J. Casajús, "Tecnologías de audio y vídeo", Dto. Publicaciones E.T.S.I.T., 2006.

J. Owens y G. Millerson, "Video Production Handbook", Focal Press, 15th Edition, 2012.

B. Mendiburu, "3DTV and 3D Cinema", Focal Press, 2012.

J. Owens y G. Millerson, "Television Production", Focal Press, 15th Edition, 2013.

Xpertia Soluciones Integrales en colaboración con el Cluster ICT-Audiovisual de Madrid, "Estado del Arte de las tecnologías audiovisuales. De la captación de imágenes al usuario final. Actualización 2013".

Grupo Técnico del Foro de la Televisión de Alta Definición en España, "Cuestiones Técnicas relevantes aplicables a los distintos tipos de servicio". Abril de 2008.

Web page: http://moodle.upm.es/titulaciones/oficiales

Signal Processing Laboratory A.202-L

## Teaching methodology

| _X_ lectures | _X_ problem solving sessions | _ _ collaborative actions | _X_ laboratory sessions |
|---|---|---|---|
| **Other:** | | | |