**Course number and name**

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<th>Number</th>
<th>93000794</th>
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| Name   | Multimedia systems and services  
Sistemas y servicios multimedia |  
| Semester | Y1-S2 |

**Credits and contact hours**

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

**Coordinator's name**

| Narciso García Santos |

**Specific course information**

**Description of course content**

This course covers the techniques required for the design, development, integration, deployment and management of multimedia systems and services. Besides basic training in multimedia systems, this course provides students with a structured vision of problems related to multimedia services.

**List of topics to be covered**

1. Introduction to multimedia systems and services. 2. Multimedia content generation and production. 3. Compression of audiovisual signals. 4. Transport and distribution of multimedia signals. 5. Presentation of multimedia signals and human-machine interaction. 6. Use cases.

**Prerequisites or co-requisites**

None.

**Course category in the program**

- X R (required)  
- E (elective)  
- SE (selective elective)

**Specific goals for the course**

**Specific outcomes of instruction**

RA1: Knowledge of the practical problems can be resolved through multimedia systems.  
RA2: Knowledge and characterization of the elements of multimedia systems.  
RA3: Knowledge of the techniques of capture, representation, processing, storage, compression, transportation and presentation used in multimedia services and applications.  
RA4: Knowledge of techniques and tools to analyze, specify, implement and maintain multimedia systems and services.  
RA5: Knowledge of the techniques required for the handling and distribution of multimedia content: creation, encoding, management, transport and distribution.
RA6: Use of mathematical and conceptual tools that underlie multimedia systems and services.

RA7: Use of computer tools required for the implementation and management of multimedia systems and services.

**Student outcomes addressed by the course**

CE1, CE4, CE6, CE9, CE15, CE16

CG1, CG2, CG3, CG4, CG5

CT1, CT2, CT3, CT4, CT5, CT6, CT7

**Bibliography and supplemental materials**

- PDF version of the slides for this course (available on-line at UPM’s Moodle repository: http://moodle.upm.es/titulaciones/oficiales)

**Teaching methodology**

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<tr>
<td>X</td>
<td>lectures</td>
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Other: