Course guide
320176 - COMULTI - Multimedia Communications

Unit in charge: Terrassa School of Industrial, Aerospace and Audiovisual Engineering
Teaching unit: 744 - ENTEL - Department of Network Engineering.

Degree: BACHELOR’S DEGREE IN AUDIOVISUAL SYSTEMS ENGINEERING (Syllabus 2009). (Optional subject).

Academic year: 2022  ECTS Credits: 6.0  Languages: Catalan, Spanish

LECTURER

Coordinating lecturer: JUANJO ALINS DELGADO
Others: JOSE LUIS MUÑOZ TAPIA

TEACHING METHODOLOGY

LEARNING OBJECTIVES OF THE SUBJECT

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>50.00</td>
</tr>
<tr>
<td>Hours small group</td>
<td>30,0</td>
<td>50.00</td>
</tr>
</tbody>
</table>

Total learning time: 60 h

CONTENTS

Unit 1. Introduction to multimedia communications

Description:
- Applications and multimedia services.
- Requirements for multimedia communications.
- Quality of service multimedia networks.

Full-or-part-time: 30h
Theory classes: 6h
Laboratory classes: 6h
Self study: 18h
Unit 2. Transport of multimedia information in IP networks

Description:
- Characteristics of multimedia traffic.
- Transport protocol and encapsulation of multimedia information.
- Control protocols for multimedia communications.

Related activities:
Theoretical explanation with problems.
Laboratories.

Full-or-part-time: 32h
Theory classes: 6h
Laboratory classes: 8h
Self study: 18h

Unit 3. Diffusion of multimedia content in IP networks

Description:
- Multi-destination routing IP.
- Management of multi-target groups.
- Interconnection of multi-destination networks.

Related activities:
Classes with theoretical explanation and problems.
Laboratories.

Full-or-part-time: 20h
Theory classes: 4h
Laboratory classes: 4h
Self study: 12h

Unit 4. Establishment and control of multimedia sessions

Description:
- Definition of multimedia session.
- Description of multimedia session.
- Announcement of multimedia sessions.
- Protocols for establishing multimedia sessions.

Related activities:
Classes with theoretical explanation and problems.
Laboratories.

Full-or-part-time: 50h
Theory classes: 10h
Laboratory classes: 10h
Self study: 30h
### Item 5. Multimedia services in IP networks

**Description:**
- Description of multiservice architectures: Triple Play.
- Video distribution services.
- Voice over IP services.
- Videoconferencing.

**Related activities:**
Classes with theoretical explanation and problems.
Laboratories.

**Full-or-part-time:** 18h
- Theory classes: 4h
- Laboratory classes: 2h
- Self study: 12h

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**GRADING SYSTEM**

**BIBLIOGRAPHY**

**Basic:**