

**2010-11 academic year**

## Network and Services Laboratory (21728)

**Degree/study:** Bachelor's degree in Telematics Engineering**Year:** 2nd**Term:** 3rd**Number of ECTS credits:** 4 credits**Hours of study dedication:** 100 hours (10 theory + 24 practical sessions + 66 out of the classroom work)**Teaching language or languages:** *Catalan / Spanish / English***Teaching Staff:** Anna Sfairopoulou (coordinator), Eduard Bonada, Sougata Pal

### 1. Presentation of the subject

The Network and Services Laboratory is a very practical subject focused on an introductory and basic configuration of different network equipment. The aim is to teach how to put into practice the theoretical information and the knowledge learned in previous subjects (Networks and Services, Network and Services Protocols) such as traffic analysis, routing, local area networks and wireless networks, or security issues of network equipment.

The subject follows the OSI model from the physical level to the application level. The chance to experiment with different network equipment, learn through trial-and-error methods and solve different problems in groups is a key issue for a technical engineer.

### 2. Previous requirements to follow the formative itinerary

The notions required are:

- Networks and communication protocols
- Notions about routing protocols
- Notions about System 802.11

It is recommended to have completed the following subjects: Networks and Services, Network and Services Protocols.

Knowledge about Linux operating system and the English language is also considered necessary to have the capacity to understand instructions in English.

### 3. Competences to be obtained in the subject

| General competences                                                                                                                                                                                                                                                                                                                                                                                                | Specific competences                                                                                                                                                                                                                                                                                                                                                                                                                           |
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| <b>Instrumental</b> <ol style="list-style-type: none"> <li>Working basic knowledge</li> <li>Written communication in the own language</li> <li>English language knowledge</li> <li>Resolution of problems</li> </ol> <b>Interpersonal</b> <ol style="list-style-type: none"> <li>Teamwork</li> </ol> <b>Systemic</b> <ol style="list-style-type: none"> <li>Capacity to put the knowledge into practice</li> </ol> | <ol style="list-style-type: none"> <li>Capacity to distinguish the network basic equipment and its mission.</li> <li>Configuration of telecommunication network equipment of the main manufacturers</li> <li>Validate the configurations and failures in telecommunication systems</li> <li>Interconnect telecommunication sets to build networks</li> <li>Create security protocols in firewall devices and validate its operation</li> </ol> |