

## 30337 - Telecommunications Services and Systems

### Información del Plan Docente

Academic Year	2017/18
Faculty / School	110 - Escuela de Ingeniería y Arquitectura
Degree	438 - Bachelor's Degree in Telecommunications Technology and Services Engineering
ECTS	6.0
Year	
Semester	Second semester
Subject Type	
Module	---

### **1.General information**

#### **1.1.Introduction**

#### **1.2.Recommendations to take this course**

#### **1.3.Context and importance of this course in the degree**

#### **1.4.Activities and key dates**

### **2.Learning goals**

#### **2.1.Learning goals**

#### **2.2.Importance of learning goals**

### **3.Aims of the course and competences**

#### **3.1.Aims of the course**

#### **3.2.Competences**

### **4.Assessment (1st and 2nd call)**

#### **4.1.Assessment tasks (description of tasks, marking system and assessment criteria)**

### **5.Methodology, learning tasks, syllabus and resources**

#### **5.1.Methodological overview**

1. Lectures (42 hours).
2. Problems (10 hours)

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3. Laboratory (8 hours): 4 sessions of 2 hours each.
4. Group assignments.
5. Academic tutoring.

### **5.2.Learning tasks**

Lectures: 42 hours presenting the contents of the course

Problems: 10 hours resolving problems and practice cases

Laboratory assignments: 4 sessions of 2 hours each

Group assignments: each group of students, under the supervision of a teacher, will be assigned a case study related to telecommunication systems

### **5.3.Syllabus**

**1. International Telecommunication Organizations and Normative.**

**2. Telecommunication Infrastructures.**

**3. Positioning Systems**

**4. Fixed Systems and Services**

**5. Mobile Systems and Services**

**6. Broadcasting Systems and Services**

### **5.4.Course planning and calendar**

The schedule for lecture and laboratory sessions and the evaluation dates will be provided by the university before the beginning of the semester.

### 5.5. Bibliography and recommended resources

- 1. Horak, R. Telecommunications and data communications handbook / R. Horak. Wiley, 2007.
- 2. Keiser, Gerd. Optical Fiber communications / Gerd Keiser . - 2nd edition New York [etc.] : McGraw-Hill, cop. 1991
- 3. Gowar, John. Optical communication systems / John Gowar . - 2nd. ed. New York [etc.] : Prentice Hall, cop. 1993
- 4. Antenas / Angel Cardama Aznar ... [et al.] . - 2ª ed., reimp. Barcelona : UPC, 2005
- 5. Hernando Rábanos, José María. Transmisión por radio / José María Hernando Rábanos . - 3a. ed. Madrid : Centro de Estudios Ramón Areces, 1998
- 6. Forssell, Borje. Radionavigation systems / Forsell, B. Prentice Hall 1991
- 7. Logsdon, Tom. The Navstar Global positioning system / Tom Logsdon New York, etc. : Van Nostrand reinhold, 1992
- [www.mityc.es/ telecomunicaciones / Infraestructuras /](http://www.mityc.es/telecomunicaciones/Infraestructuras/)
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