Course guide
300020 - PE - Probability and Statistics

Unit in charge: Castelldefels School of Telecommunications and Aerospace Engineering
Teaching unit: 749 - MAT - Department of Mathematics.

Degree: BACHELOR'S DEGREE IN NETWORK ENGINEERING (Syllabus 2009). (Compulsory subject).
BACHELOR'S DEGREE IN TELECOMMUNICATIONS SYSTEMS ENGINEERING (Syllabus 2009). (Compulsory subject).

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

LECTURER

Coordinating lecturer: Definit a la infoweb de l'assignatura.
Others: Definit a la infoweb de l'assignatura.

PRIOR SKILLS

X

REQUIREMENTS

X

DEGREE COMPETENCES TO WHICH THE SUBJECT CONTRIBUTES

Specific:
1. CE 1 TELECOM. Students will acquire the ability to solve mathematical problems for engineering. An aptitude for applying knowledge of linear algebra, geometry, differential geometry, differential and integral calculus, differential equations and partial differential equations, numerical methods, numerical algorithms, statistics and optimisation. (CIN/352/2009, BOE 20.2.2009)

Transversal:
2. SELF-DIRECTED LEARNING - Level 1. Completing set tasks within established deadlines. Working with recommended information sources according to the guidelines set by lecturers.
3. TEAMWORK - Level 1. Working in a team and making positive contributions once the aims and group and individual responsibilities have been defined. Reaching joint decisions on the strategy to be followed.

TEACHING METHODOLOGY

X

LEARNING OBJECTIVES OF THE SUBJECT

X
### STUDY LOAD

<table>
<thead>
<tr>
<th>Type</th>
<th>Hours</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guided activities</td>
<td>12,0</td>
<td>8.00</td>
</tr>
<tr>
<td>Hours large group</td>
<td>36,0</td>
<td>24.00</td>
</tr>
<tr>
<td>Hours small group</td>
<td>6,0</td>
<td>4.00</td>
</tr>
<tr>
<td>Hours medium group</td>
<td>12,0</td>
<td>8.00</td>
</tr>
<tr>
<td>Self study</td>
<td>84,0</td>
<td>56.00</td>
</tr>
</tbody>
</table>

**Total learning time:** 150 h

### CONTENTS

**(ENG) Introducción a la combinatoria**

**Description:**

- x

**Full-or-part-time:** 17h
- Theory classes: 3h
- Practical classes: 1h
- Guided activities: 2h
- Self study: 11h

**(ENG) Conceptos básicos de la probabilidad**

**Description:**

- x

**Full-or-part-time:** 24h 30m
- Theory classes: 4h 30m
- Practical classes: 2h
- Laboratory classes: 1h
- Guided activities: 2h
- Self study: 15h

**(ENG) Variables aleatorias**

**Description:**

- x

**Full-or-part-time:** 30h
- Theory classes: 9h
- Practical classes: 3h
- Laboratory classes: 1h
- Guided activities: 2h
- Self study: 15h
### (ENG) Vectores aleatorios

**Description:**

**Full-or-part-time:** 27h 30m  
Theory classes: 7h 30m  
Practical classes: 2h  
Laboratory classes: 2h  
Guided activities: 2h  
Self study: 14h

### (ENG) Procesos estocásticos

**Description:**

**Full-or-part-time:** 33h  
Theory classes: 9h  
Practical classes: 3h  
Guided activities: 2h  
Self study: 19h

### (ENG) Muestras y estimación

**Description:**

**Full-or-part-time:** 18h  
Theory classes: 3h  
Practical classes: 1h  
Laboratory classes: 2h  
Guided activities: 2h  
Self study: 10h

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### GRADING SYSTEM

XX

### EXAMINATION RULES.

X

### BIBLIOGRAPHY

**Basic:**  

**Complementary:**