Course guides
230804 - AIR - Astronomy & Radioastronomy

Unit in charge: Barcelona School of Telecommunications Engineering
Teaching unit: 748 - FIS - Department of Physics.

Degree:
BACHELOR'S DEGREE IN AUDIOVISUAL SYSTEMS ENGINEERING (Syllabus 2009). (Optional subject).
BACHELOR'S DEGREE IN ELECTRONIC SYSTEMS ENGINEERING (Syllabus 2009). (Optional subject).
BACHELOR'S DEGREE IN NETWORK ENGINEERING (Syllabus 2010). (Optional subject).
BACHELOR'S DEGREE IN TELECOMMUNICATIONS SCIENCE AND TECHNOLOGY (Syllabus 2010). (Optional subject).
BACHELOR'S DEGREE IN TELECOMMUNICATIONS SYSTEMS ENGINEERING (Syllabus 2010). (Optional subject).
BACHELOR'S DEGREE IN TELECOMMUNICATIONS TECHNOLOGIES AND SERVICES ENGINEERING (Syllabus 2015). (Optional subject).

Academic year: 2021  ECTS Credits: 6.0  Languages: English

LECTURER
Coordinating lecturer: Garcia-Berro Montilla, Enrique
Others: Garcia-Berro Montilla, Enrique
Torres Gil, Santiago

PRIOR SKILLS
Basic Mathematics and Physics

REQUIREMENTS
None

TEACHING METHODOLOGY

LEARNING OBJECTIVES OF THE SUBJECT
- To provide an introduction to astronomy and astrophysics.
- To apply the basic concepts of physics to studying the universe.
- To provide an introduction to a general knowledge of astronomy and space science.
- Basic contents of the course are: Observational and computational techniques in astronomy.
STUDY LOAD

<table>
<thead>
<tr>
<th>Type</th>
<th>Hours</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Hours large group</td>
<td>52.0</td>
<td>34.67</td>
</tr>
<tr>
<td>Self study</td>
<td>98.0</td>
<td>65.33</td>
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</tbody>
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Total learning time: 150 h

CONTENTS

1. Spherical astronomy
2. Observational techniques: optical and radioastronomy
3. Celestial mechanics
4. Observational properties of stars
5. Stellar evolution
6. Binary systems
7. The Milky Way
8. Galaxies
9. Origin and evolution of the Universe: the Big Bang

GRADING SYSTEM

- Final examination 80%
- Practical applications 20%
**BIBLIOGRAPHY**

**Basic:**

**Complementary:**

**RESOURCES**

**Other resources:**