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 TELECOMMUNICATIONS SYSTEMS ENGINEERING (Syllabus 2010). (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 TECHNOLOGIES AND SERVICES ENGINEERING (Syllabus 2015). (Optional subject).

Academic year: 2020  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>
</tr>
</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: