Contact

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Email: Desconegut

External teachers

Jorge Carretero
Linda Blot

Use of languages

Principal working language: english (eng)

Prerequisites

None.

Objectives and Contextualisation

The course is intended to acquaint students with the basic concepts about galaxies and extragalactic astronomy research in general. We want to present the students how we have been learning about the galaxy properties throughout the years to reach our current understanding of galaxy formation and evolution and what the current lines of research are nowadays.

Skills

- Formulate and tackle problems, both open and more defined, identifying the most relevant principles and using approaches where necessary to reach a solution, which should be presented with an explanation of the suppositions and approaches.
- Understand the bases of advanced topics selected at the frontier of high energy physics, astrophysics and cosmology and apply them consistently.

Learning outcomes

1. Distinguish between the different types of active galaxy.
2. Tackle the problem of the evolution of galaxies in its totality.
3. Understand the fundamentals and evolution of the Milky Way.

Content

- Historical introduction
- Galaxy Classification
- Galaxy Dynamics
Global Properties of Galaxies
The Milky Way
The Local Group
Stellar Population Synthesis Models
Photometric Redshifts
Gravitational Lenses
Clusters of Galaxies
Active Galaxies and Quasars
High Redshift Galaxies
Galaxy Models

Methodology
Lectures and exercises.
Classwork and homework.

Activities

<table>
<thead>
<tr>
<th>Title</th>
<th>Hours</th>
<th>ECTS</th>
<th>Learning outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lectures</td>
<td>68</td>
<td>2.72</td>
<td>1, 2, 3</td>
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<thead>
<tr>
<th>Title</th>
<th>Hours</th>
<th>ECTS</th>
<th>Learning outcomes</th>
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<tbody>
<tr>
<td>Exercises, presentations, discussion, literature work</td>
<td>68</td>
<td>2.72</td>
<td>1, 2, 3</td>
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<tr>
<td>Study of lectures material</td>
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<td>2.72</td>
<td>1, 2, 3</td>
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Evaluation
Exam, homework, oral presentation and summary of seminar material.

Evaluation activities

<table>
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Bibliography


"Galaxy Formation and Evolution", Ho, van den Bosch and White, Cambridge University Press, 2010