LEARNING OBJECTIVES OF THE SUBJECT

Nowadays, many engineers (in telecommunications, electronics, mechanics, etc.) often participate in research projects related to outer space. For example, satellite communications, studies of the Earth's surface and interior using orbiting devices, interplanetary research, development of new technologies to explore the Universe at different wavelengths of the electromagnetic spectrum, etc. However, it is quite normal that the curricula do not have room for subjects such as Geophysics, Astronomy or Astrophysics. Therefore, the main aim of this course is to fill up some of these gaps, which possess, by themselves, an intrinsic interest. Throughout this course attention will also be given to the technological developments that are contributing to rapid advances in these sciences.

STUDY LOAD

<table>
<thead>
<tr>
<th>Type</th>
<th>Hours</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours large group</td>
<td>39,0</td>
<td>31.20</td>
</tr>
<tr>
<td>Self study</td>
<td>86,0</td>
<td>68.80</td>
</tr>
</tbody>
</table>

Total learning time: 125 h

CONTENTS

(ENG) CHAPTER 1 INTRODUCTION

Full-or-part-time: 1h
Theory classes: 1h

(ENG) CHAPTER 2. FROM THE ORIGIN TO THE END OF THE UNIVERSE

Full-or-part-time: 5h
Theory classes: 5h
(ENG) CHAPTER 12. THE DEATH OF STARS: STELLAR RECYCLING

Full-or-part-time: 3h
Theory classes: 3h

(ENG) CHAPTER 13. BLACK HOLES: THE END OF SPACE AND TIME

Full-or-part-time: 3h
Theory classes: 3h

(ENG) CHAPTER 14. THE MILKY WAY: OUR HOME IN THE UNIVERSE

Full-or-part-time: 3h
Theory classes: 3h

(ENG) CHAPTER 15. A UNIVERSE OF GALAXIES

Full-or-part-time: 3h
Theory classes: 3h

GRADING SYSTEM

Exam 1: 50%
Exam 2: 50%

BIBLIOGRAPHY

Basic: