

## GUÍA DOCENTE ABREVIADA DE LA ASIGNATURA

G1776 - Astronomy

Doble Grado en Física y Matemáticas

Grado en Física

Grado en Física

Curso Académico 2024-2025

1. DATOS IDENTIFICATIVOS				
Título/s	Doble Grado en Física y Matemáticas Grado en Física Grado en Física		Tipología y Curso	Obligatoria. Curso 4 Obligatoria. Curso 3
Centro	Facultad de Ciencias			
Módulo / materia	MATERIA MECÁNICA CLÁSICA Y ASTRONOMÍA MÓDULO CENTRAL			
Código y denominación	G1776 - Astronomy			
Créditos ECTS	6	Cuatrimestre	Cuatrimestral (2)	
Web				
Idioma de impartición	Inglés	Forma de impartición	Presencial	

Departamento	DPTO. FISICA MODERNA
Profesor responsable	FRANCISCO JESUS CARRERA TROYANO
E-mail	francisco.carrera@unican.es
Número despacho	IFCA - Edificio Juan Jordá. Planta: + 1. DESPACHO (107)
Otros profesores	AMALIA CORRAL RAMOS

### 3.1 RESULTADOS DE APRENDIZAJE

- Acquire an overall view of the Universe: scale of the various structures, position of the Earth
- Know the role of the different forces acting on the Universe and their range of application
- Understand the life cycle of the stars
- Understand Astrophysical phenomena
- Understand the role of General Relativity in studying the Universe
- Know the evidence for the Big Bang
- Understand the complementarity of observations performed with different detectors at different wavelengths
- Analyse new phenomena through indirect evidence

### 4. OBJETIVOS

- Application of their previous knowledge of Physics on an astronomical context
- Realisation of the main physical processes happening in astronomical objects
- Application of simple physical approximations to understand the basic behaviour of those objects
- Experience in the process of gathering astronomical data
- Analysis of real and simulated astronomical data, to extract physical information from them
- Critical evaluation of the correctness of the results of the calculations performed, through the analysis of orders of magnitude and the development of physical intuition
- Obtaining information on astronomical topics: analysing and summarising it critically
- Present publicly and discuss the results of a task

### 6. ORGANIZACIÓN DOCENTE

#### CONTENIDOS

1	Introduction: main concepts and history
2	Physical processes in Astronomy
3	Positional Astronomy
4	Observables and instrumentation in Astronomy
5	The Solar System and the Sun
6	Exoplanets
7	Stars
8	Galaxies and Active Galaxies
9	Large Scale Structure and Cosmology

7. MÉTODOS DE LA EVALUACIÓN				
Descripción	Tipología	Eval. Final	Recuper.	%
Preparation, development and written report of each lab./observational session	Evaluación en laboratorio	No	Sí	40,00
Partial exams	Examen escrito	No	Sí	30,00
Final exam	Examen escrito	Sí	Sí	30,00
<b>TOTAL</b>				<b>100,00</b>
Observaciones				
<p>The written reports will be checked for plagiarism, following the University rules for such cases if it is found, as will the use of illicit means in the partial and final exams.</p> <p>All hand-ins during the course will be done via Moodle, no other means will be accepted.</p>				
Criterios de evaluación para estudiantes a tiempo parcial				
<p>The final exam is compulsory for part time students.</p> <p>The partial exams may be discounted and the final exam contributing 60% of the score if requested by the student in advance of the date of the final exam.</p> <p>The schedule and timetables of the laboratory sessions will be as flexible as possible, as well as the deadlines for the presentations of the written reports.</p>				

## 8. BIBLIOGRAFÍA Y MATERIALES DIDÁCTICOS

### BÁSICA

"Fundamental Astronomy" H. Karttunen, P. Kröger, H. Oja, 2007, Springer

Esta es la Guía Docente abreviada de la asignatura. Tienes también publicada en la Web la información más detallada de la asignatura en la Guía Docente Completa.