



Asignatura: Tesis de Máster  
Código: 30870  
Centro: Facultad de Ciencias  
Titulación: Máster en Biofísica  
Nivel: Máster  
Tipo: Investigación  
Nº de créditos: 20 ECTS

## ASIGNATURA / COURSE TITLE

Tesis de Máster / Master thesis

### 1.1. Código / Course number

30870

### 1.2. Materia / Content area

Física, Biología, Matemáticas / Physics, Biology, Mathematics

### 1.3. Tipo / Course type

Investigación / Research

### 1.4. Nivel / Course level

Posgrado / Graduate (postgraduate program)

### 1.5. Curso / Year

1º / 1st

### 1.6. Semestre / Semester

2º / 2nd

### 1.7. Número de créditos/ Credit allotment

20 ECTS / 20 ECTS

### 1.8. Requisitos previos/ Prerequisites

The students should have passed the subjects of the first semester or demonstrate postgraduate courses of equivalent content and level in other programs.

### 1.9. Requisitos mínimos de asistencia a las sesiones presenciales / Minimum attendance requirement

Minimum attendance: 200h of practical work in a schedule agreed with the host laboratory.



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### 1.10. Datos del equipo docente/ Faculty data

Raúl Guantes

(subject coordinator)

Department: Condensed Matter Physics and  
Institute for Materials Sciences 'Nicolás Cabrera'.  
Faculty: Ciencias.  
Office: Módulo 08, 114  
Teléfono: + 34 91 497 8735  
E-mail: [raul.guantes@uam.es](mailto:raul.guantes@uam.es)  
Página Web: <http://www.uam.es/raul.guantes>

### 1.11. Objetivos del curso/ Course objectives

The goal of the Master Thesis is to introduce the student to practical research work in group or lab under the supervision of a senior researcher. The student will have the opportunity to apply techniques and concepts learnt during the Master courses, to learn new ones and become familiar with the daily research work in a lab actively participating in design, performance, analysis and interpretation of experiments. She/he should be able to produce new experimental results and communicate them to a scientific audience.

### 1.12. Referencias de consulta / Course bibliography

Bibliography recommended by the supervisor in the host research group.

## 2. Métodos docentes/ Teaching methodology

The students will complete and develop the theoretical and practical skills acquired during the Master courses, applying them to a specific research project. She/he will be continuously guided and supervised by a senior researcher and will participate in the discussions and analysis of all the experiments. The student will elaborate a final report and a poster to be presented to an evaluation committee and to the rest of the Master students to show her/his degree of scientific maturity.

## 3. Tiempo de trabajo del estudiante / Student workload

		Nº de horas	Porcentaje
Personal attendance	Practical lab work, participation in group discussions.	300	60%
No attendance	Preparation of experiments, independent study and reading time, analysis of results.	200	40%
<b>Total</b>		<b>500 h</b>	<b>100%</b>



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#### 4. Métodos de evaluación y porcentaje en la calificación final / Evaluation procedures and weight of components in the final grade

- 1) Elaboration of a short research report (5-10 pages maximum) with Introduction and Objectives, Methods, Results, Discussion and Conclusions and a short bibliography summarizing in a rigorous and comprehensive manner the student research project. This report will be evaluated by a commission of Master teachers (40%).
- 2) Presentation in poster format of the main scientific results, in a public session to the rest of the Master students and the evaluation committee (60 %).

#### Extraordinary call:

Only in case the student can demonstrate the impossibility of attendance to the public evaluation session, she/he will be allowed to present an extended research report to the evaluation commission (10-20 pages) (100%).

#### 5. Cronograma\* / Course calendar

Semana aprox. Week	Contenido Contents	Horas presenciales Contact hours	Horas no presenciales Independent study time
1-16	Practical work in the lab, discussions, analysis of results and elaboration of research report and poster.	200	300

\*Este cronograma tiene carácter orientativo.