



Study Plan

School: Institute for Research and Advanced Training

Degree: Doctorate

Course: Computational Astrophysics (cód. 234)

1st Year - 1st Semester

Component code	Name	Scientific Area Field	ECTS	Duration	Hours
MAT08858D	Advanced Modelling in Astrophysics	*** TRANSLATE ME: Astrofísica ***	6	Semester	156
MAT08859D	Astrophysical Fluids and Turbulence	*** TRANSLATE ME: Astrofísica ***	6	Semester	156
MAT08860D	Numerical Hydrodynamics	Mathematics	3	Semester	78
Thesis					

1st Year - 2nd Semester

Component code	Name	Scientific Area Field	ECTS	Duration	Hours
MAT08861D	MPI/openMP and Astrophysical Applications	*** TRANSLATE ME: Astrofísica ***	6	Semester	156
MAT08862D	Data Reduction and Statistical Methods	Mathematics	6	Semester	156
MAT08863D	Numerical Magnetohydrodynamics	Mathematics	3	Semester	78
Thesis					

2nd Year - 3rd Semester

Component code	Name	Scientific Area Field	ECTS	Duration	Hours
MAT08864D	Adaptative Grids - AMR & BMR	*** TRANSLATE ME: Astrofísica ***	3	Semester	78

Group of Options

Component code	Name	Scientific Area Field	ECTS	Duration	Hours
MAT08866D	Stellar Astrophysics	*** TRANSLATE ME: Astrofísica ***	6	Semester	156
MAT08867D	Galactic Astronomy	*** TRANSLATE ME: Astrofísica ***	6	Semester	156
MAT08868D	Cosmology	*** TRANSLATE ME: Astrofísica ***	6	Semester	156
MAT08869D	Astrophysics of the Diffuse Media	*** TRANSLATE ME: Astrofísica ***	6	Semester	156
MAT08870D	Plasma Astrophysics	*** TRANSLATE ME: Astrofísica ***	6	Semester	156

Thesis



2nd Year - 4th Semester

Component code	Name	Scientific Area Field	ECTS	Duration	Hours
MAT08865D	SPH and N-Body Methods	Mathematics	3	Semester	78

Group of Options

Component code	Name	Scientific Area Field	ECTS	Duration	Hours
MAT08866D	Stellar Astrophysics	*** TRANSLATE ME: Astrofísica ***	6	Semester	156
MAT08867D	Galactic Astronomy	*** TRANSLATE ME: Astrofísica ***	6	Semester	156
MAT08868D	Cosmology	*** TRANSLATE ME: Astrofísica ***	6	Semester	156
MAT08869D	Astrophysics of the Diffuse Media	*** TRANSLATE ME: Astrofísica ***	6	Semester	156
MAT08870D	Plasma Astrophysics	*** TRANSLATE ME: Astrofísica ***	6	Semester	156
FIS08871D	Condensed Matter Physics/Advanced Nuclear Physics	Physics	6	Semester	156

Thesis

3rd Year - 5th Semester

Component code	Name	Scientific Area Field	ECTS	Duration	Hours
Thesis					

3rd Year - 6th Semester

Component code	Name	Scientific Area Field	ECTS	Duration	Hours
Thesis					

Conditions for obtaining the Degree:

*** TRANSLATE ME: Para aprovação na componente curricular, curso de doutoramento com 48 ECTS), é necessário a aprovação (através de avaliação ou creditação) das seguintes unidades

curriculares: { \ }newline

{ \ }newline

1º Semestre: { \ }newline

- 3 UC Obrigatórias num total de 15 ECTS

{ \ }newline

2º Semestre: { \ }newline

- 3 UC Obrigatórias num total de 15 ECTS

{ \ }newline

3º Semestre: { \ }newline

- 1 UC Obrigatória num total de 3 ECTS { \ }newline

- 1 UC Optativa num total de 6 ECTS do conjunto de optativas disponíveis no plano de estudos

4º Semestre: { \ }newline

- 1 UC Obrigatória num total de 3 ECTS { \ }newline

- 1 UC Optativa num total de 6 ECTS do conjunto de optativas disponíveis no plano de estudos { \ }newline

Para obtenção do grau necessita de obter também aprovação nas provas públicas de defesa da Tese, decorrendo a investigação (Trabalho de Investigação para a Dissertação) desde o 1º ao 6º semestre, com um total de 132 ECTS ***



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