



Universidad Autónoma
de Madrid

PHYSICS DEGREE

ACADEMIC YEAR 2020/2021

Studies	Physics Degree
Centre	Faculty of Sciences C/ Darwin, 2 Campus de Cantoblanco 28049 – Madrid Phone: 914978264 Web page
Knowledge Branch	Sciences
ECTS Credits	240

ECTS CREDITS	
Basic training (FB)	60
Compulsory (OB)	132
Optional (OP)	36
External practical (PE)	-
End-of-degree Project (TFG)	12
Total	240

FIRST YEAR

Code	Subject	Credits	Type	Semester
<u>16393</u>	EXPERIMENTAL TECHNIQUES I	6	OB	Annual
<u>16394</u>	COMPUTATION I	6	FB	Annual
<u>16385</u>	FUNDAMENTALS OF PHYSICS I	6	FB	1
<u>16386</u>	FUNDAMENTALS OF PHYSICS II	6	FB	1
<u>16389</u>	ANALYSIS I	6	FB	1



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Code	Subject	Credits	Type	Semester
<u>16391</u>	ALGEBRA I	6	FB	1
<u>16387</u>	FUNDAMENTALS OF PHYSICS III	6	FB	2
<u>16388</u>	FUNDAMENTALS OF CHEMISTRY	6	FB	2
<u>16390</u>	ANALYSIS II	6	FB	2
<u>16392</u>	ALGEBRA II	6	FB	2

SECOND YEAR

Code	Subject	Credits	Type	Semester
<u>16401</u>	EXPERIMENTAL TECHNIQUES II	6	OB	Annual
<u>16395</u>	MATHEMATICAL METHODS I	6	OB	1
<u>16397</u>	MECHANICS AND WAVES I	9	OB	1
<u>16399</u>	ELECTROMAGNETISM I	6	OB	1
<u>16402</u>	COMPUTATION II	6	FB	1
<u>16396</u>	MATHEMATICAL METHODS II	6	OB	2
<u>16398</u>	MECHANICS AND WAVES II	6	OB	2
<u>16400</u>	ELECTROMAGNETISM II	9	OB	2
	OPTIONAL SUBJECTS	6	OP	2

THIRD YEAR

Code	Subject	Credits	Type	Semester
<u>16409</u>	EXPERIMENTAL TECHNIQUES III	6	OB	Annual
<u>16403</u>	MATHEMATICAL METHODS III	6	OB	1
<u>16404</u>	OPTICS	6	OB	1
<u>16405</u>	THERMODYNAMICS AND STATISTICAL PHYSICS I	6	OB	1
<u>16407</u>	QUANTUM MECHANICS I	6	OB	1
<u>16406</u>	THERMODYNAMICS AND STATISTICAL PHYSICS II	6	OB	2
<u>16408</u>	QUANTUM MECHANICS II	6	OB	2
<u>16410</u>	ELECTRONICS	6	OB	2
	OPTIONAL SUBJECTS	12	OP	2

FOURTH YEAR

Code	Subject	Credits	Type	Semester
<u>16416</u>	END-OF-DEGREE PROJECT	12	TFG	Annual
<u>16411</u>	ATOMICAL AND MOLECULAR PHYSICS	6	OB	1
<u>16412</u>	SOLID STATE PHYSICS	6	OB	1
<u>16414</u>	NUCLEAR PHYSICS AND ELEMENTARY PARTICLES	6	OB	1
<u>16415</u>	ASTROPHYSICS AND COSMOLOGY	6	OB	1
<u>16413</u>	PHYSICAL ELECTRONICS, MAGNETISM AND SUPERCONDUCTIVITY	6	OB	2
	OPTIONAL SUBJECTS	18	OP	2



OPTIONAL SUBJECTS

SECOND YEAR

Code	Subject	Credits	Type	Semester
<u>16417</u>	PHYSICS OF FLUIDS	6	OP	2
<u>16418</u>	BIOPHYSICS	6	OP	2

THIRD YEAR

Code	Subject	Credits	Type	Semester
<u>16417</u>	PHYSICS OF FLUIDS	6	OP	2
<u>16418</u>	BIOPHYSICS	6	OP	2
<u>16419</u>	ADVANCED MATHEMATICAL METHODS	6	OP	2
<u>16420</u>	CLASSICAL ELECTRODYNAMICS	6	OP	2
<u>16421</u>	ENERGY SOURCES	6	OP	2
<u>16422</u>	ADVANCED COMPUTING	6	OP	2

FOURTH YEAR

Code	Subject	Credits	Type	Semester
<u>16417</u>	PHYSICS OF FLUIDS	6	OP	2
<u>16418</u>	BIOPHYSICS	6	OP	2
<u>16419</u>	ADVANCED MATHEMATICAL METHODS	6	OP	2
<u>16420</u>	CLASSICAL ELECTRODYNAMICS	6	OP	2
<u>16421</u>	ENERGY SOURCES	6	OP	2
<u>16422</u>	ADVANCED COMPUTING	6	OP	2
<u>16423</u>	QUANTUM MECHANICS	6	OP	2
<u>16424</u>	STATISTICAL MECHANICS	6	OP	2
<u>16425</u>	NANOPHYSICS	6	OP	2
<u>16427</u>	SPECTROSCOPY OF SOLIDS	6	OP	2
<u>16428</u>	CONDENSED MATTER PHYSICS	6	OP	2
<u>16429</u>	HIGH ENERGY PHYSICS	6	OP	2
<u>16430</u>	PHYSICS OF COSMOS	6	OP	2
<u>16431</u>	PHOTONICS	6	OP	2
<u>16433</u>	EXTERNAL PRACTICAL	6	OP	2
<u>16426</u>	MATERIALS SCIENCE *	6	OP	
<u>16432</u>	RESEARCH EXPERIENCE*	6	OP	

* Not offered in 2020/2021