Teaching plan - PhD programme in Materials Science and Nanotechnology

37°Cycle a.y. 2021/2022

Course	SSD	hrs	credits	Educational form*	Type of activity**	Mandatory/Choosen activity
Surface Analytical Methods: Applications to Materials Science	CHIM/02, CHIM/03	8	1	Lecture	curricular	Choosen activity
Principles and applications of nanobiotechnologies	BIO/12	8	1	Lecture	curricular	Choosen activity
Quantum effects of nano-devices and applications for the next generation of electronics and thermoelectrics	FIS/03, FIS/01	8	1	Lecture	curricular	Choosen activity
Electronic excitations in materials and in nanostructures: theoretical methods, algorithms and computer tools	FIS/03, CHIM/02	8	1	Lecture	curricular	Choosen activity
Nanotechnology with Organic Matter: Where have we been? Where are we going?	CHIM/04, CHIM/06, CHIM/02	16	2	Lecture	curricular	Choosen activity
Principles of Electron Microscopy and Applications to Nanomaterials Research	FIS/01, FIS/03	8	1	Lecture	curricular	Choosen activity
Advanced Computational Methods in Materials Science	FIS/03, CHIM/02	8	1	Lecture	curricular	Choosen activity
Solid-state chemistry strategies for environmental sustainability and human health	CHIM/04, CHIM/06, CHIM/03	8	1	Lecture	curricular	Choosen activity
PCAM School (subject to be defined)	FIS/01, FIS/03, CHIM/02, CHIM/03	24	2	seminars	curricular	Choosen activity
Seminars on Materials Science	FIS03, FIS01, CHIM03, CHIM02, CHIM04, CHIM06, BIO12	24	2	seminars	curricular	Choosen activity
Semiconductor trip: from a simple idea to a complex manufacturing	FIS/01, FIS/03, CHIM/02, CHIM/03	24	2	seminars	cross-curricular	Choosen activity
Total hrs/credits		144	15			

Educational form*
lecture
laboratory training
seminar

Type of activity**
curricular
cross-curricular