

CURRICULUM Structure of Matter - Plasmas [ITALY to FRANCE]

ITALIAN STUDENT First year (PISA) 60 ECTS. At least 51 before departure (60 before February)

Numero	Denominazione	SSD	ECTS	CFU TOTALI
COURSES (mandatory)				
1	Struttura della Materia 2	FIS 03	9	9
1	Laboratorio di Ottica Quantistica	FIS 01	12	12
1 at choice	Fisica Teorica 1	FIS 02	9	9
	Fisica Statistica	FIS 02	9	
1 at choice	Fisica dello Stato Solido	FIS 03	9	9
	Fluidodinamica	FIS 03	9	
4	TOTAL ECTS			39
COURSES to be chosen in the list				
TOTAL ECTS				21
TOTAL First year ECTS (at least 51 to leave)				60

ITALIAN STUDENT Second year (Paris) 60 ECTS

I SEMESTER (mandatory) 24 ECTS. Exams in december (if problems at max before May)

2014	Introduction à la physique des Plasmas	UE1	3	
2015 and following year	Outils pour les Plasmas et la Fusion	TC1	3	
2014	Théorie cinétique	UE2	3	
2015 and following year	Théorie Cinétique	TC3	3	
2014	Modélisations fluides des plasmas	UE3	3	
2015 and following year	Modélisation et simulation	TC5	3	
2014	Magnétohydrodynamique	UE4	3	
2015 and following year	Magnétohydrodynamique	TC2	3	
2014	Plasmas spatiaux	UE5	3	
2015 and following year	Ondes et Instabilités	TC4	3	
2014	Concepts fondamentaux en physique des plasmas froids	UE6	3	
2015 and following year	Physique atomique, moléculaire et rayonnement	TC7	3	
2014	Instrumentation, diagnostics et analyse des plasmas	UE7	6	
2015 and following year	Instrumentation, diagnostics et analyse des plasmas	TC6	6	
	UE7 ou TC6 : 6 ECTS will be counted as Stage/Thesis preparation in the second semester		-6	
Totale ECTS			18	

II SEMESTER - Stage/Thesis from January first to end of August

	Stage (Master Thesis)	1 January -31 August	36	36
	6 ECTS counted as Stage/Thesis preparation in the first semester		6	6
Totale ECTS			42	

TOTAL Second year ECTS				60
END ITALIAN STUDENT				
FRENCH STUDENT First year (Paris, UPMC) 60 ECTS.				
Numero	Denominazione	SSD	ECTS	CFU TOTALI
BASIC COURSES (mandatory)				
1	Mécanique statistique	4P002	9	9
1	Mécanique quantique	4P005	9	9
	Plasmas : Bases Physiques	4P015	3	3
	Cours d'anglais (English course)	MX...	3	3
	1 or 2 UE to be chosen in the list		6 or 3+3	6
TOTAL ECTS				30
COURSES to be chosen in the list				
1 at choice	Physique atomique et moléculaires	4P050	6	6
	Atomes, ions, molécules	4P051	6	
1 at choice	Hydrodynamique	4P010	3	3
	Physique des transports	4P065	3	
	Plasmas dans la fusion et l'astrophysique	4P063	3	3
	1 or 2 UE to be chosen in the list		6 or 3+3	
	Stage	4P058	12	12
TOTAL ECTS				30
TOTAL First year ECTS				60
FRENCH STUDENT Second year (in Pisa) 60 ECTS				
I and II SEMESTER				
1	Plasma Physics: Fluid Theory	First semester	6	6
1	Plasma Physics: Kinetic theory	second semester	6	6
1	Plasma Physics: Non linear Processes	second semestre	6	6
	Stage (Master Thesis)	during full year	42	42
TOTAL Second year ECTS				60
END FRENCH STUDENT				