

EUROPEAN MASTER OF SCIENCE IN NUCLEAR FUSION AND ENGINEERING PHYSICS – FUSION EP

PROGRAMME 2nd YEAR: TRACK FUSION SCIENCE

	UCM / UC3M		UGent		U Lorraine		U Stuttgart	
	Elective courses: 12 ECTS from :		Elective courses: 12 ECTS from :		Elective courses: 12 ECTS from :		Elective courses: 12 ECTS	
SECOND YEAR – TRACK FUSION SCIENCE	Fusion Reactor Physics	6	Nonlinear Systems	6	Equilibrium and Magnetohydrodynamics	3	Seminar on Special Problems of Fusion Research	3
	Plasma Diagnostics and Materials Technology	6	Machine Learning	6	Turbulence & Transport Heating	3	Advanced Experimental/ Computational Training	3
	Turbulence in Plasmas	3	Physics of Semiconductor Devices	6	Plasma Wall Interactions	3	Simulation of Reflectometry with Python	2
	Magnetohydrodynamics	3	Physical Chemistry	6	Modelling and Numerical Methods	3	Advanced Statistical Physics	9
	Computational Plasma Physics	3	Modelling and Engineering of Nanoscale Materials	6	Diagnostics for Fluctuations & Data Processing Methods	3	Superconductivity I + II	9
	Plasma in Space and Astrophysics	3	Physical Materials Science	6			Advanced Atomic Physics I	4
	Inertial Confinement Fusion	3					Advanced Quantum Theory	9
	Fluid Mechanics and Partial Differential Equations	3						
	Computational Techniques in Atomic and Molecular Structure, Dynamics and Spectroscopy	6						
	Language & Culture	6	Language & Culture	6	Language & Culture	6	Language & Culture	6
Joint Experimentation and Analysis Session in Prague (6 ECTS)								
Joint Practicum in Cadarache (6 ECTS)								
Master Thesis (30 ECTS)								