



European Master in Advanced Materials Science and Engineering (AMASE)

Course 2017/2018

Track 1: Advanced Metallic Materials

1st quarter. Adaptation phase (29 mandatory credits)

Teaching language	Code	Name	Type	ECTS
SPA	CEM01	Physical Metallurgy	Mandatory	5
SPA	24798	Mechanical Behaviour of Materials	Mandatory	5
SPA	CEM04	Physical Properties of Materials	Mandatory	5
SPA	CEM05	Microstructural Characterisation of Materials	Mandatory	5
ENG		Micromechanical Design, Nanomechanical and Coatings	Mandatory	5
SPA	240em013	Structure and Properties of Polymers	Elective*	4,5
	Language(*)	French I, German I, Spanish I or English I	Mandatory	4
				33

2nd quarter

- 17, 5 mandatory credits + Take a minimum of 19,5 credits between the elective credits of q1 and q2

Teaching language	Code	Name	Type	ECTS
SPA	240EM022	Control of Degradation and Corrosion	Mandatory	4,5
SPA	240EM025	Structural Integrity	Mandatory	4,5
SPA	240EM024	Metallurgical Technology	Mandatory	4,5
SPA	240EM141	Selection of Materials in Mechanical Design	Elective*	4,5
ENG	240EM142	Materials for Energy Applications	Elective*	4,5
ENG	240EM143	Materials for Transport Applications	Elective*	4,5
SPA	240EM144	Materials Joining Technologies	Elective*	4,5
ENG	240EM121	Advanced Ceramic Materials and Inorganic Matrix Composites	Elective*	4,5
	Language(*)	French II, German II, Spanish II or English II	Mandatory	4
				40



3rd quarter

Teaching language	Code	Name	Type	ECTS
SPA	CEM01	Physical Metallurgy	Mandatory	5
SPA	240EM032	Advanced Characterization of Materials	Mandatory	4,5
SPA	240EM115	Surface Engineering	Mandatory	3
ENG	240EM131	Micromechanical Design, Nanomechanical and Coatings	Mandatory	4,5
ENG	240EM033	Biomedical Materials	Mandatory	4,5
SPA	240EM113	Electrical, Magnetic, Optical and Thermal Properties of Materials	Mandatory	4,5
	Language(*)	French III, German III, Spanish III or English III	Mandatory	4
				30

4th quarter,

CEM40	Master`s Thesis	Mandatory	30
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