

Teaching unit - Designation of the courses	ECTS	Coeff.	Lect.	Tut.	PW
Semester 7	30				
Surfaces and interfaces	10	11			
Surfaces : Thermodynamic and structures	2	2	10	12	-
Thin films processing 1: Thin films fabrication and characterizations	2	2	10	12	-
Thin films processing 2: Vacuum deposition techniques	1	1	5	5	2
Thin films processing 3 : Solution deposition techniques and sol-gel	1	1	10	6	-
Surfaces and materials characterizations	1	1	-	6	-
Crystalline growth processes	1	1	6	6	-
Characterization of materials 2	2	3	-	-	40
Mechanical behaviour of materials	8	8			
Resistance of materials	2	2	10	10	-
Continuum mechanics	3	3	12	12	-
Materials and risk assessments	0,5	1	10	-	-
Rheology	2	1,5	10	10	-
Norms and standards	0,5	0,5	6	-	-
Seminars / Webinars / Industry visits	0	0	-	4	-
Numerical and modelling tools	8	7,5			
Technical design and drawing	1	1	6	6	-
CAD (Computer Aided Design)	1,5	1	2	12	-
Computational modelling and numerical calculations	2	2	8	24	-
Pre-dimensioning computation and finite elements analysis	1	1	10	6	-
Project management 1 : Materials MS project	0,5	0,5	2	6	-
Life cycle assessment and carbon footprint	1	1	10	-	-
Design of experiments (DOX/DOE)	1	1	6	6	-
Science engineering III	4	4			
English 3 : Professional communication	2	2	-	20	-
English TOEIC	0	0	-	20	-
Project management 2	1	1	10	-	-
Marketing	0,5	0,5	10	-	-
Quality management	0,5	0,5	4	6	-
Challenge	0	0	-	-	-
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Semester 8	30				
Materials degradation	5	6,5			
Nondestructive testings	1	1	20	-	-
Tribology and lubrication	2,5	3	20	20	-
Corrosion	1	1,5	6	6	4
Materials ageing	0,5	1	8	-	-
Material properties and characterizations	6	7,5			
Acoustic properties of materials	1	1	6	6	-
Optical properties of materials	1,5	1,5	10	10	-
Sensors and signal processing	1,5	2	14	12	-
STIR : Laboratory research work week	2	2	-	-	40
Seminars / Webinars / Industry visits	0	0	-	4	-
Science engineering IV	4	4			
English 4 : Scientific communication	2	2	-	20	-
English TOEIC	0	0	-	20	-
Management responsibility	0,5	0,5	-	10	-
Personal professional project 2	0,5	0,5	-	6	-
Innovation and entrepreneurship	1	1	6	8	-
TAI 1	5	5			
Industrial case study with an industrial partner	5	5	-	4	-
Training	10	10			
Training in industry 4 th year	10	10	3 to 4 months		