

**Universitat Politècnica de Catalunya, Escola Tècnica Superior
d'Enginyers Industrials des Barcelona, Barcelona, Spain,**

1st Year (1st and 2nd Semester)

Universitat Politècnica de Catalunya (UPC), Escola Tècnica Superior d'Enginyeria Industrial de Barcelona (ETSEIB)	Credit Points	FS 1 (WS)	FS 2 (SS)
MI - Structure of Materials			
Kinetic Theory and Statistical Thermodynamics (Tamarit)	4,5	●	
Materials Science and Technology (Maspoch)	6	●	
Physical Metallurgy (Anglada)	6	●	
Metals and Alloys (Tartera)	6		●
Ceramic Materials (Alcala)	6		●
Minimal Credits out of MI	min. 7		
MII - Characterisation and Modelling of Materials			
Microstructural Materials Characterisation (Gil)	6		●
Numerical Calculus (Susin)	3,5	●	
Quality Control in Materials Technology (Mateo)	4,5	●	
Minimal Credits out of MII	min. 7		
MIII - Properties of Materials			
Mechanical Behaviour of Materials (Planell)	6	●	
Corrosion and Degradation of Materials (Fernandez)	6		●
Fracture and Fatigue (Anglada)	6	●	
Minimal Credits out of MIII	min. 7		
MIV- Materials technologies			
Materials Selection (Cabrera)	6		●
Polymers and Composites (Martinez)	6	●	
Casting (Tartera)	4,5		●
Surface Protection (Herrero)	6	●	
Minimal Credits out of MIV	min. 7		
Seminar I	3		
Languages			
Spanish language and culture (foreign students only)	4	●	
Second language (French or German or English)	4	●	●
Third language (Spanish speaking students only)	4	●	●
English Technical Writing	6	●	
Required Credits out of Languages	max. 8		
Total required	60		

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2nd Year (3rd and 4th Semester)

Universitat Politècnica de Catalunya (UPC), Escola Tècnica Superior d'Enginyeria Industrial de Barcelona (ETSEIB)	Credit Points	FS 3 (WS)	FS 4 (SS)
Metallurgical Technology (Prado)	6	●	
Fracture and Fatigue (Anglada)	6	●	
Structural Materials (Llanes)	6	●	
Polymer and Composite Technology (Maspoeh)	6	●	
Surface Protection (Herrero)	6	●	
Non-Ferrous Alloys (Gil)	6	●	
New Perspectives in Materials Science and Technology (Planell)	3	●	
Natural Materials and Biomaterials (Ginebra)	6	●	
Quality Control in Materials Technology (Mateo)	4,5	●	
Seminar II (Coordinator: Anglada)	3	●	
Languages			
Spanish language and culture	4	●	
English Technical Writing	4	●	
Required Credits out of Languages	min. 4		
Master Thesis	30		●
Total required	60		