

Curriculum Materials Science & Engineering 2024-2025

Legend	Compulsory courses	Compulsory courses shared	Electives	Broading Electives
	Deficiency courses			

Legend	Compulsory courses	Compulsory courses shared	Electives	Broading Electives
	Deficiency courses			

Year 1				
	Quarter 1A	Quarter 1B	Quarter 2A	Quarter 2B
Core modules	Characterization (5 EC; Huijser)	Organic Materials & Polymer Science (5 EC; Wurm)	Inorganic Materials Science (5EC; Baeumer)	Phase Transformation in Manufacturing (5EC; Bor)
		Statistical Thermo (2,5 EC; de Beer)	Project Organic Materials (5 EC; Hempenius)	
			Surfaces and Thin Layers (5EC; Wormeester)	
	Practicum Functional Materials (5 EC; ten Elshof)			

Year 2				
	Quarter 1A	Quarter 1B	Quarter 2A	Quarter 2B
Core modules	Internship & Job Orientation Project (20 EC; Velthuis)		Final Master Project (40 EC)	

Year 1				
	Quarter 1A	Quarter 1B	Quarter 2A	Quarter 2B
Electives scheduled	Advanced Colloids and Interfaces (5 EC; Wood)	Electrochemistry: fundamentals and techniques (5 EC; Altomare)	Polymer Physics (5 EC; De Beer)	Polymer Synthesis (5 EC; Wurm)
		Lab on a chip (5 EC, Berendsen)	Advanced Organic Chemistry (5 EC; Jonkheijm)	Advanced Ceramics (5 EC; Pizzoccaro-Zilmay)
			Elastomeric Science & Engineering (5 EC; Blume)	
			Sustainable Nanotechnology (5 EC; Susarrey Arce)	Electrocatalysis: Materials and Spectroscopy (5 EC; Katsoukis)
				X-ray Characterisation for S&T (5 EC; Makhotkin)

Compulsory courses	37,5 EC
Broading Elective	12,5 EC
Free Elective	10 EC
Internship	20 EC
Final Master's Project	40 EC

Year 1				
	Quarter 1A	Quarter 1B	Quarter 2A	Quarter 2B
2.5 EC Topics	Systems Chemistry (Wong)	Nano and Surface Chemistry (Nijhuis)	Chemical Process Analysis (Susarrey Arce)	Molecular Modeling (De Beer)
		Design and simulation of chemical batch processes (Franke)	Physical Organic Chemistry (Huskens)	
			Electrochemical Engineering (Banerjee)	
			Advanced Reaction Kinetics	

		(Faria)	
--	--	---------	--

Year 1				
	Quarter 1A	Quarter 1B	Quarter 2A	Quarter 2B
Electives n.s.	Theory of Phase Equilibria (5 EC; Van der Hoef)			
	Polymers & Material Science Practice (3 EC; Hempenius)			
	Capita Selecta Research Group (5 EC)			
	Contract Research (5 EC)			

Year 1				
	Quarter 1A	Quarter 1B	Quarter 2A	Quarter 2B
Def.	Workshop Aca. Skills (0,5 EC)			
	Matlab for PM CSE* (2,5 EC)			
	Math for Engineers (0 EC; optional)			

* Matlab for PM CSE (202400599) replaces Matlab voor pre-masters ET (202001390)