

Specialisation:

Materials

Profile:

Materials for Sustainability

Legend	Compulsory Courses Specialization	Profile Courses	Electives	Electives non CSE
	Deficiency Courses			

Year 1				
Compulsory Courses Specialization	Quarter 1A	Quarter 1B	Quarter 2A	Quarter 2B
	Advanced Colloids and Interfaces (5 EC; Wood)	Statistical Thermo (2,5 EC; de Beer)	Advanced Ceramics (5 EC; Pizzoccaro-Zilamy)	
	Characterization (5 EC; Huijser)			
	Practicum Functional Materials (5 EC; ten Elshof)			

Year 1				
Profile Courses	Quarter 1A	Quarter 1B	Quarter 2A	Quarter 2B
	Advanced Catalysis (5 EC; Lefferts/Mul)	Organic Materials & Polymer Science (5 EC; Wurm)	Project Organic Materials (5 EC; Hempenius)	Membrane Materials (2,5 EC; Lammertink/De Vos/Benes)

Year 1				
Electives scheduled	Quarter 1A	Quarter 1B	Quarter 2A	Quarter 2B
		Electrochemistry: fundamentals and techniques (5 EC; Altomare)	Polymer Physics (5 EC; de Beer)	Polymer Synthesis (5 EC; Wurm)
		Advanced Molecular Separations (5 EC; De Vos/Schuur)	Advanced Organic Chemistry (5 EC; Jonkheijm)	Electrocatalysis: Materials and Spectroscopy (5 EC; Katsoukis)
		Biomedical Materials Engineering (5 EC; Grijpma/Poot)	Elastomer Science & Engineering (5 EC; Blume)	
		Sustainable Nanotechnology (5 EC; Susarrey Arce)	X-ray Characterisation for S&T (5 EC; Makhotkin)	

Year 1				
2,5 EC Topics	Quarter 1A	Quarter 1B	Quarter 2A	Quarter 2B
	Systems Chemistry (Wong)	Ion Transport in Fluids (Wood e.a.)	Chemical Process Analysis (Susarrey Arce)	Molecular Modelling (de Beer)
	Sustainable Organic Chemistry (Wurm)		Electrochemical Engineering (Banerjee)	Membrane Processes (Lammertink/De Vos/Benes)
			Advanced Reaction Kinetics (Faria)	Machine Learning in Chemistry (Franke)
			Materials Science of Batteries (Elshof)	

Year 1					
Electives n.s.	Quarter 1A	Quarter 1B	Quarter 2A	Quarter 2B	
	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					
Deficiency	Quarter 1A	Quarter 1B	Quarter 2A	Quarter 2B	
	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)