

Curriculum Chemical & Process Engineering 2023-2024

Legend	Compulsory courses	Electives CSE CPE	Electives CSE MME	Electives non CSE
	Deficiency courses	Electives CSE General		

Year 1				
	Quarter 1A	Quarter 1B	Quarter 2A	Quarter 2B
Core Modules	Advanced Chemical Reaction Engineering (5 EC; Brillman/Kersten)		Process Plant Design incl. Thermodynamics and Flowsheeting (15 EC; van der Ham/van den Berg)	
	Advanced Catalysis (5 EC; Lefferts/Mul)	Advanced Molecular Separations (5 EC; de Vos/Schuur)		
			Process Dynamics & Control (2.5 EC; Zondervan)	

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

Electives scheduled	Multi-component Mass Transport (5 EC; Benes)		Labcourse SPT (2.5 EC; Kersten)	
	Transport Phenomena (5 EC; Mahmoudi)	Cost Management & Engineering (5 EC; Joosten)	Process Equipment Design (5 EC; Bramer)	Numerical Methods for Engineers (5 EC; Lammertink)
	Advanced Colloids and Interfaces (5 EC; Wood)	Electrochemistry: fundamentals and techniques (5 EC; Altomare)	Turbulent Combustion (5 EC; Kok)	Multi-phase Flow (5 EC; Luding)
				Electrocatalysis: Materials and Spectroscopy (5 EC; Katsoukis)

2.5 EC Topics	Entrepreneurial Toolbox for Engineers (previously <i>Innovating Reactor Systems</i>) (Fernandez)	Ion Transport in Fluids (Wood e.a.)	Chem. Process Analysis (Gardeniers)	Process Optimization (Zondervan)
		Design and simulation of chemical batch processes (Franke)	Electrochemical Engineering (Banerjee)	Membrane Processes (Lammertink/de Vos/Benes)
			Advanced Reaction Kinetics (Faria)	Membrane Materials (Lammertink/de Vos/Benes)

Electives n.s.	Capita Selecta Research Group (5 EC)			
	Contract Research (5 EC)			
	Sustainable Chemicals (2,5 EC; Ruiz Ramiro)			
	Sustainable Fuels (2,5 EC; Ruiz Ramiro)			
	Theory of Phase Equilibria (5 EC; van der Hoef)			

Deficiency	Workshop Aca. Skills (0,5 EC)	
	Matlab for pre-masters ET (2 EC)	
	Chemical Reaction Engineering (3,5 EC)	
	Math for Engineers (0 EC, optional)	