

## 2023-2024 Nanomaterials Science Programme

Mandatory (MA)	Nanophotonics (NP - primary elective)	Colloid Science (CS - primary elective)	Catalysis and chemical synthesis (CCS - primary elective)	Secondary elective (SE – secondary elective)	Course name Course code	Credits Course coordinator	Type Timeslot				
<b>Year 1</b>											
<b>Semester 1</b>				<b>Semester 2</b>							
Period 1		Period 2		Period 3		Period 4					
Introducing the Natural Sciences GSNS-INTRO				0.5 MA R.H.H. Pieters -							
Advanced Catalysis SK-MCAT	7.5 P.E. de Jongh	CCS A	Advanced Microscopy NS-EX423M	7.5 G.A. Blab	NP A	Synthesis of Catalysts & Energy Mat. SK-MSCEM	7.5 P. Ngene	CCS A	Photovoltaic Sol. Energy Ph. and Techn. GEO4-2513	7.5 W.G.J.H.M. van Sark	NP A
Advanced Spectroscopy SK-MSPEC	7.5 C. de Mello-Donaga	MA B	Solids and Surfaces SK-MSOLS	7.5 D.A.M. Vanmaekelbergh	NP C	Colloidal Dispersions SK-MCodi	3.75 A.P. Philipse	EC M	Colloidal Analysis Techniques SK-MCOAT	3.75 B.H. Erne	EC M
Making Modern Science BETA-B3MMS	7.5 F.D.A. Wegener	SE B	Organometallic Chem. & Homog. Cat. SK-MOCHC	7.5 M.E. Moret	CCS D	Modelling and simulation NS-TP432M		7.5 M. Dijkstra	CS B		
Toy Models BETA-MTOYM	7.5 W.K. Kegel	SE D	Nonequil. system & transp. phenomena SK-MNSTP	7.5 A. Petoukhov	CS B	Quantum Materials SK-MQUMA	7.5 Z. Zanolli	CS B	Advanced Organic Synthesis SK-MOSS	7.5 G.J.P.H. Boons	CCS C
Fundamentals of Soft Matter NS-TP449M [Intro EXPH + THPH]	3.75 R.H.H.G. van Roij	EC M	Atomistic Simulations for Mat. Sc. SK-MASMS	7.5 N. Artrith	CS B	Photon physics NS-EX418M		NP F.T. Rabouw C			
			Experimental Soft Matter NS-EX432M [EXPH]	3.75 A. van Blaaderen	EC M						
				Dilemmas of the scientist <small>workshop 1</small>		0 MA					
				FI-MHPSDL1		H.M. Huistra -					
				Academic Context		6.5 MA					
				SK-MACCO		E.T.C Vogt -					
				Master research chemistry part 1*		15 MA					
				SK-MRES1		E. Mulder -					
				Master research chemistry part 2*		37.5 MA					
				SK-MRES2		E. Mulder -					
<b>Year 2</b>											
				Dilemmas of the scientist		0.5 MA					
				FI-MHPSDL2		H.M. Huistra -					
				Academic Context		6.5 MA					
				SK-MACCO		E.T.C Vogt -					
				Master research chemistry part 1		15 MA					
				SK-MRES1		E. Mulder -					
				Master research chemistry part 2		37.5 MA					
				SK-MRES2		E. Mulder -					
				Internship		max. 30 SE					
				SK-MINTERN		E. Mulder -					

### Requirements

67.5 EC mandatory courses, research project and thesis  
 22.5 EC primary courses min. 2 in NP/CS/CCS and min. 1 in NP/CS/CCS  
 30 EC secondary courses, an internship or GSNS-profile

\* The research project can be carried out at 7 research groups of the Debye Institute or the Institute for Sustainable and Circular Chemistry. To do your project at a research group, obligatory courses might be required. These can be found via [this page](#).

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