

CURRICULUM MASTERS IN NANO TECHNOLOGY 2022-2023

Compulsory courses	Compulsory courses: Internship & MSc assignment	Deficiency courses
(Application of) Solid State Matter	(Bio)Molecular Matter	Nano-engineered Devices

Year 1				
	Quarter 1A	Quarter 1B	Quarter 2A	Quarter 2B
	Characterisation	Fabrication	Design + Application	Internship
Core modules	Characterization of Nanostructures (7,5EC) 201600043 (Huijsen)	Fabrication of Nanostructures (7,5EC) -Technology: 191210730 (5EC) -Bottom up Fabrication: 2016000249 (2,5EC) (Huskens)	Design project (10EC) 201600041 (Tas)	Internship & Job Orientation Project (20 EC) 201700174
	Nano-Lab: Fabrication & Characterization (5EC) 201600041 (Tiggelaar/Schouwstra)			
	Nanoscience* (5EC) 193400050 or Nanophysics* (5EC) 193500010 Zandvliet	SOL: Nano-electronics (5EC) 193400141	SOL: AMM Inorganic Materials Science (5EC) 193700040	
		BMM: Advanced Drug Delivery and Nanomedicine (5EC) 202200254	BMM: Bionanotechnology (5EC) 193400111	
Deficiency	Workshop Academic Skills (0,5EC)	Matlab for pre-masters ET (2,5EC)		
		A first practical course in Electronics (1,5EC) 201900246		

*Please check Osiris for the course descriptions. If you would like to do Nanophysics instead of Nanoscience based on your prior experiences, please contact the study advisor first.

Year 2				
	Quarter 1A	Quarter 1B	Quarter 2A	Quarter 2B
	Nano-research	Master's Final Project preparation, evaluation		
Core modules	Continuation Internship		Societal Embedding	
	SOL: Nanomaterial research (5EC) 201900042 or Nano-optics (5EC) 193400131	Master's Final Project (40EC) 202200257 <u>incl. societal embedding (3rd quarter)</u>		
	BMM: (Bio)molecular Chemistry & Technology (5EC) 193700020			
	SMS: Adv. Colloids & Interfaces (5EC) 201800083 or FEM theory and COMSOL simulations for micro- and Nanodevices (5EC) 202200253			
Elective (5EC)		1 Elective or C.S. research group in quarter 2, 3 or 4 (subjects from 1st year are also allowed)		

Electives				
	Quarter 1A	Quarter 1B	Quarter 2A	Quarter 2B
Electives	Nanophysics, Zandvliet, Li & Golubov 193530010	Theoretical solid state Physics, Kelly 19510040	Surfaces and thin layers, Wormeester, Ackermann, Sturm & Zandvliet 193550020	Chem. of inorg. Mat. and nanostruc. Ten Elshof 201900122
	Quantum information, Renema 202100078	Quantum optics, Pinkse 193515000	Nanophotonics, Vos, Lagendijk & Klärs 201100074	Modern topics in condensed matter, Houselt, Kooij, Wormeester & Zandvliet 201500167
	Biophysical techn. & molecular imaging, Otto & Blum 193640020	AMM Organic Materials Science, Vancso, de Beer, Duvigneau, Wurm & Gojzewski 193700030	Biomedical Signal Acquisition, Olthuis 191210720	
	Transducer science, Krijnen 201400427	EMstatics, Krijnen 191211690	Design Principles for Precision Mechanisms, Brouwer (ET) 191131360	
	Systems-on-chip for embedded systems, Gerez + vdZee 191211590		Sustainable Nanotechnology Susarrey 202200330	
Electives n.s.	Macromolecular Nanotechnology, Vancso			
	Advanced semiconductor devices, Salm			