

CURRICULUM MASTER'S IN NANO TECHNOLOGY 2024-2025

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

Year 1				
	Quarter 1A	Quarter 1B	Quarter 2A	Quarter 2B
	Characterisation	Fabrication	Design + Application	Nano-research
Core modules	Characterization of Nanostructures (NT) (7,5EC) 201600043	Nano and surface Chemistry (Bottom-up Nano fabrication)(CE) (2,5EC) 202400569	Design project (10EC) 201600044	SOL: Nanomaterial research (NT) (5EC) 201900042 or Electrocatalysis: Materials and Spectroscopy (CE) (5EC) 202200313
		Fabrication of micro and nanodevices (Technology EE) (5EC) 191210730		BMM: Bionanotechnology (NT) (5EC) 193400111 (offered in Q2A or Q2B)
	Nano-Lab: Fabrication & Characterization (NT) (5EC) 201600041			ned: FEM theory and COMSOL simulations for micro- and Nanodevices (NT) (5EC) 202200253
	Nanoscience* (NT) (5EC) 193400050 or Nanophysics* (AP) (5EC) 193530010	SOL: Nano-electronics (NT) (5EC) 193400141	SOL: AMM Inorganic Materials Science (CE) (5EC) 193700040	Free Elective(s) (5 - 10 EC)
		BMM: Advanced Drug Delivery and Nanomedicine (NT) (5EC) 202200254	BMM: Bionanotechnology (NT) (5EC) 193400111 (offered in Q2A or Q2B)	
		NED: Lab on a chip (EE) (5EC) 201600046	NED: Nanofluidics (NT) (5EC) 193400121 or NED: Micro Electro Mechanical Systems (MEMS) Design (EE) (5EC) 191211300	
Deficiency	Workshop Academic Skills (0,5EC) 201700158	Matlab for pre-masters ET (2,5EC) 202001389		
		A first practical course in Electronics (1,0EC) 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
	Internship (20 EC)	Master's Final Project preparation, evaluation		
Core modules	Internship (20 EC) 201700174	Master's Final Project (40EC) 202200257 including Societal Embedding		
	Optional Electives:			
	Solid: Nano-optics (NT) (5EC) 193400131			
	Supramolecular Chemistry (Molecular and Biomolecular Chem. and Techn)(CE) (5EC) 202400372			
	NED: Adv. Colloids & Interfaces (CE) (5EC) 201800083			

Possible free electives**				
	Quarter 1A	Quarter 1B	Quarter 2A	Quarter 2B
Electives	Quantum information, Renema (AP) (5EC) 202100078	Theoretical solid state Physics (AP) (5EC) 193510040	Surfaces and thin layers (AP) (5EC) 193550020	Chem. of inorg. Mat. and nanostructures (CE) (2,5EC) 201900122
	Biophysical techniques & molecular imaging (EE) (5EC) 193640020	Quantum optics (AP) (5EC) 202100083	Biomedical Signal Acquisition (EE) (5EC) 191210720	Modern topics in condensed matter physics (AP) (5EC) 201500167
	Transducer science (BM) (5EC) 201400427	AMM Organic Materials Science (CE) (5EC) 193700030	Design Principles for Precision Mechanisms 2 (ME) (5EC) 191131360	NanoPlasmonics (AP) (5EC) 202200046
	Systems-on-chip for embedded systems (EE) (5EC) 191211590	Emstatics (EE) (5EC) 191211690	Sustainable Nanotechnology (NT) (5EC) 202200330	

** You can also find alternative courses with other master's programmes.

Elective EE	Q1A, Q1B, Q2A, Q2B	Advanced semiconductor devices Physics (5EC) 201900135
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