INFO WEBINAR: NANOSCIENCE AND NANOTECHNOLOGY







www.uni-siegen.de



Master in Nanoscience and Nanotechnology

- The Master in Nanoscience and Nanotechnology of the University of Siegen is a two-year 120 ECTS English language degree program offered to national and international students.
- It focuses on modern aspects of the science and technology of nanoscopic systems, ranging from basic knowledge to applications and devices.
- It consists of a set of lectures, seminars and lab courses followed by a project in a research group, accomplished by a thesis.
- The master is a joint initiative of the Departments of Physics, Chemistry and Electrical Engineering of the School of Sciences and Technology.



Admissions

- Application deadline: April 30, 2023
- Admission requirements:
 - B.Sc. in Physics, Chemistry or Electrical Engineering with grade 2.7 or better. There is the possibility to qualify on the basis of recommendation letters and/or discussion with academic experts
 - Proficiency in English: TOEFL, CAE, IELTS, CEFR
- Applications must be submitted online via UNISONO
- The application is free of charge
- For further details please visit https://www.uni-siegen.de/nt/nano/admission/





1 Semester	2 Semester	3 Semester	4 Semester
General Chemistry (Physics, Engineering)	Nano Chemistry	Nano-Research Lab Course	Master Thesis
Solid-State Physics (Chemistry, Engineering)	Elective Course	Photonics Devices	
Quantum Theory (Chemistry, Engineering)	Physics of Nanoelectronic Devices	Elective Course	
Nanotechnology (Physics, Chemistry)	Lab Course "Micro and Nanotechnology"	Elective Course	
Nano-Research Course + Elective Course	Lab Course "Nanosynthesis, Nanosafety, Nanoanalytics"		
Advanced Solid-State Physics (Physics)			



Research Groups

- Chemistry
 - Chemistry and Structure of Novel Materials
 - Inorganic Chemistry
 - Inorganic Materials Chemistry
 - Macromolecular Chemistry
 - Physical Chemistry
- Electrical Engineering
 - High-Frequency Technology and Quantum-Electronics

- Graphene-based Nanotechnology
- Analogue Circuits and Image Sensors
- Physics
 - Laboratory of Nano-Optics
 - Nano-Physics
 - X-Ray-Physics
 - X-Ray Tomography



Master Theses 2022 (selected)

- Liquid-gated Si Nanowire-based Structures for Studying Biochemical Fluids
- Eddy Current Sensor for Detecting Magnetic Conductivity
- Development of Borate-based Fuel Cell
- Towards Spectroscopic and Microscopic Investigation of Fluorescence Quenching Dynamics in Nanoconfinements
- Time Resolved Spectroscopy of Quantum Meitters at High Repetition Rate



Career Paths

- PhD at German Universities & Research Centers or abroad
- Research/Teaching Assistant at Universities of Applied Sciences
- Industry in North-Rhine Westphalia, Germany and abroad
 - Learn German (the University offers language courses free of charge)
 - Clusters on Nano Micro Materials and Photonics: nmwp.nrw.de/?lang=en





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