

APPLICATIONS AND REQUIREMENTS

International candidates must have a Bachelor's degree or an equivalent Diploma.

Adequate knowledge of English is mandatory (level B2 or equivalent).

Candidates must apply online at applymscenglish.unipi.it.

Successful applicants must follow the University of Pisa's standard enrolment procedure.

More details at: <https://www.unipi.it/index.php/enrolment>.

Website

matnano.ing.unipi.it/en/

Study Programme

Director

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General Information

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ENROLMENT AND FEES

Enrolment instructions are available at matricolandosi.unipi.it.

Fees depend on the student's country of origin and vary from € 356 to € 2,556 for each academic year.

Information on fee waivers and scholarships can be found at www.unipi.it/tuition-fees.



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ITALY



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MSc Programme in Materials and Nanotechnology



UNIVERSITÀ DI PISA

The University of Pisa (UNIFI) is a public institution composed of twenty departments, with high level research centres in the fields of agriculture, astrophysics, computer science, engineering, medicine and veterinary medicine.

Established in 1343, UNIFI is one of the most prestigious Italian higher education institutions and a modern centre for teaching and advanced research. One of the University's main strategies is that of internationalisation as it aims to engage with students and researchers and establish long-term partnerships with universities and public and private institutions from all over the world. With a current student population surpassing 54,000, UNIFI offers a large number of degree programmes held in English and a variety of exchange programmes.



Scuola Normale Superiore (SNS)

Study Materials and Nanotechnology in Pisa

The graduate programme in Materials and Nanotechnology features a unique interdepartmental programme including lecturers from the Civil and Industrial Engineering, Information Engineering, Physics and Chemistry and Industrial Chemistry departments of the University of Pisa. As a result, the programme is open to graduates from different branches of industrial engineering, computer engineering, physics and chemistry. The collaboration with lecturers from the Scuola Normale Superiore (SNS) and from the NEST Laboratory of the SNS also distinguishes the programme on a national level. NEST, the National Enterprise for Nanoscience and Nanotechnology, is a centre for research and interdisciplinary training concerning the nanoscale, which is used to develop new nano-biotechnological systems, devices and nano-electronic and photonic architectures. NEST comprises four different institutions: the Scuola Normale Superiore, the Italian Institute of Technology, the National Research Council and the Scuola Superiore Sant'Anna and is considered a laboratory of excellence internationally. Classes taught by SNS lecturers take place at the Scuola Normale Superiore.

COME AND THRIVE

- Experience a rich scientific environment
- Enjoy a positive work setting
- Establish a network of professional contacts

PROGRAMME OVERVIEW

	FIRST YEAR	ECTS TOTAL 60
	Biomaterials Electron Microscopy of Nanomaterials Transport Phenomena in Materials Characterization of Nanoengineered Systems Chemistry of Soft Matter Computational Material Science Electromagnetic Materials and Electron Devices Interaction of Electromagnetic Waves with Complex Media Materials and Devices for Nanoscale Electronics Mechanical Behaviour of Materials Nanostructured Materials Quantum and Condensed Matter Physics Quantum Optics Lab Solid State Physicochemical Methods Spectroscopy of Nanomaterials	
	(Curriculum: Nanoscience and Nanotechnology)	
	Polymer Science and Engineering Photonics Biophysics Many Body Physics Quantum Theory of Solids Computational Nanoelectronics and Metamaterials	
	(Curriculum: Advanced Materials)	
	Polymer Science and Engineering Polymeric Materials for Special Applications Rheology Disordered and off-Equilibrium Systems Composite Materials Science and Engineering Principles of Microfluidics Sustainable and Degradable Polymers Advanced Ceramics and Smart Glasses Processing and Recycling of Polymers	
	SECOND YEAR	ECTS TOTAL 60
		12 CFUs to be chosen by the student
		ECTS TOTAL 60
		12 CFUs to be chosen by the student

The first year will focus on building and standardising a common knowledge about materials amongst the physicists, chemists and engineers admitted onto the course. The second year entails a specialised course divided into two topics, "Nanoscience and Nanotechnology" and "Advanced Materials". The programme is structured as follows:

PROFESSIONAL PROSPECTS

The main career opportunities for graduates in Materials and Nanotechnology are: innovation and development of production, advanced design, planning and scheduling, management of complex systems and the qualification and diagnosis of materials. Graduates in Materials and Nanotechnology will be able to find employment with companies for development and production, processing of metallics, polymers, ceramics, glassy and composite materials for application in the chemical, mechanical, electrical, electronic, telecommunications, energy, construction, transport, biomedical and environmental sectors as well as the conservation of Cultural Heritage.