INTERNATIONAL MASTER OF NANOSCALE SCIENCE AND ENGINEERING
TOULOUSE, FRANCE
MSc2 level in the European bachelor’s master’s doctorate system

A UNIQUE INTERDISCIPLINARY EDUCATIONAL PROGRAM ACCREDITED BOTH BY A LEADING SCIENTIFIC UNIVERSITY AND TWO ENGINEERING SCHOOLS

TAILORED CURRICULUM
• 1 year full-time in English
• Only 18 students per class
✓ 4 NanoX hands-on intensive courses: ½ tutorials – ½ practical works
✓ 4 clean room sessions at AIME
✓ Possibility to exchange with elective courses in our partner masters

JOB OPENING
Although this training is primarily a “PhD track”, the possibilities of insertion into the job market after graduation are expanding rapidly

OBJECTIVES OF THIS MSc DEGREE
△ Favor interdisciplinarity
△ Propose research-oriented studies in Nanoscale Science and Engineering
△ Render students skilled in the design, the modeling, the characterization, the fabrication, and the addressing of innovative nano-objects with tailored properties
△ Offer an immersion in a research laboratory throughout the year

TEACHING TO AND THROUGH RESEARCH
• In-lab annualized research project: more than 30 internship offers in our partner labs in 2021
• Masterclass project
△ Cutting edge facilities: practical works are in research labs or in highly equipped platforms

GRANTS
12 grants are available for talented foreign students (travel expenses, tuition fees and 10-months scholarship)

CANDIDATE’S PROFILE
French, European and international students who have completed 4 years of higher education in one of the fields of NanoX: physics, chemistry or material science

Want to apply? Contact us until beginning of May education@nanox-toulouse.fr
Develop a practical understanding of how quantum states of atoms, electrons and photons can be controlled in experiments and the possibilities that they offer for future quantum technology applications.

Acquire knowledge and expertise concerning the methods to elaborate and characterize 2D nanostructured layers.

Assimilate the theoretical basis of the quantum chemical methods and learn how they can be applied to anyone’s research project.

Develop skills on catalyst preparation, reaction kinetics monitoring, interpretation of characterization data.

Making and using a gas sensor: synthesis and integration of nano-object prepared by chemical routes.

Microfluidic chip fabrication (PDMS) (Hydrodynamics, Bacteria culture in single drop,...)

Fabrication of a micro supercapacitor based on nanoporous Carbon.

Manufacture electronic device with nMOS technologies and measure the electronic properties (Diodes, Transistors, logic circuits, ...).

- Green Chemistry
- Fundamental physics
- Luchon Tutorials in Theoretical Chemistry Winterschool

education@nanox-toulouse.fr

Download our syllabus