

University of Science and Technology of Hanoi (USTH) Master in "Advanced Materials Science and Nanotechnology"

- Advanced Materials, devices and Nanotechnologies
- Advanced Materials and Nanochemistry

Program overview

The Master in "Advanced Material and Nanotechnology" is offered through the University of Science and Technology of Hanoi (USTH), Vietnam and is co-accredited by a group of French universities including:

- Université Paris 13
- Univeristé Paris 7
- INSA Toulouse
- INP Grenoble
- Université du Maine
- Université Aix-Marseille
 Université Paul Sabatier
- Universite Paul
 ENS Cachan
- ENS Cachan
- Univeristé Haute AlsaceUniversité Reims Champagne Ardennes
- Université Paris 11
- Université Paris 11

Courses in the master's program are taught each year by teaching faculty members from participating French universities. Most students graduating from this program go on to pursue a PhD program within a French research laboratory. Students enrolled at the USTH are also enrolled in a French university, the degree they earn being both Vietnamese and French.

This master's degree is led by Vietnam. All classes take place in Hanoi.

Program objectives

The curriculum prepares to both professional and research careers.

The "professional" part of the training leads to careers as project manager, research and development assistant.
The "research" part of the training gives access to PhD programs (internationally recognized, with co-advising and industrial CIFRE funding opportunities), then to careers as principal investigators in public or private research, clinical trial investigators, research and teaching faculty appointments, R&D managers in semiconductor, telecommunications, surface treatment, nanotechnology and nanochemistry industries.

As the entire program is taught in English, students have the opportunity to gain specific scientific language skills.

Curriculum

The USTH Master in "Advanced Materials Science and Nanotechnology" is organized over 4 semesters:

- Semester S1 M1 (30 ECTS credits) with 7 joint TUs (Teaching Units) and two specialization TUs
- Semester S2 M1 (30 ECTS credit) with 1 joint TU (lab work), 4 specialization TUs and one 3 month (12 weeks) laboratory project.
- Semester 3 M2 (30 ECTS credits) with 5 joint TUs and 2 to 3 specialization TUs

• Semester 4 M2 (30 ECTS credits) with 6 specializations TUs and a 6 months internship in a public research laboratory or in industry.

Admission requirements

The Master is open to all applicants who:

- hold a Bachelor-level degree in subjects related to the Master's program
- possess a good comprehension of English (equivalent to TOEFL 500 or IELTS 5.5)







CONDORCET

University of Science and Technology of Hanoi (USTH) Master in "Advanced Materials Science and Nanotechnology"

- Advanced Materials, devices and Nanotechnologies
- Advanced Materials and Nanochemistry

Contents

In the Master's program's first year (M1), the goals for the students are to:

- gain M1-level skills in physics, chemistry, micro-nanomanufacturing, nanotechnologies, nanophysics, nanochemistry.
- gain basic communication, project management and development skills

 gain pre-requisite skills for their chosen specialization in Advanced Materials, devices and Nanotechnologies or in Advanced Materials and Nanochemistry

Career placement

SPECIALIZATION () ADVANCED MATERIALS, DEVICES AND NANOTECHNOLOGIES

This specialization targets a large scope of activities, which can involve basic and applied physics, electronics, chemistry, advanced materials, biology and technological development. The specialization is in itself cross-disciplinary.

More specifically, graduates of the M2 in Advanced Materials, devices and Nanotechnologies can work in:

- basic and applied research,
- theoretical analysis, digital simulation,
- experimental development and high-end technologies,
- knowledge transfer and dissemination, scientific communication and activities, teaching,
- technology intelligence,
- data collection and management,
- protocol drafting, technical development, equipment installation, maintenance and marketing.

SPECIALIZATION 2 ADVANCED MATERIALS AND NANOCHEMISTRY

This specialization targets a large scope of activities, which can involve chemistry, physical chemistry, advanced materials, biology and technological development. The specialization is in itself cross-disciplinary.

More specifically, graduates of the M2 in Advanced Materials and Nanochemistry:

- basic and applied research,
- theoretical analysis, digital simulation,
- · experimental development and high-end technologies,
- knowledge transfer and dissemination, scientific communication and activities, teaching,
- technology intelligence,
- data collection and management,
- · protocol drafting, technical development, equipment installation, maintenance and marketing.



For more information

- > Partnering laboratories: LSPM, CSBAT, LPL
 > Partnering institutions: IUT Saint Denis, Institut Galilée.

février 2017

Université Paris 13 -