Master Nanosciences et nanotechnologies

Parcours Research intensive track 1re année

Présentation

This PhD-track program is dedicated to students having a 4-years bachelor of Science and who wish to pursue their studies with a PhD in Nanosciences and nanotechnologies. The specificity of this track is an extended master thesis performed over the two years of the master, allowing the student to achieve a substantial research project.

The first year of the program contains :

- General courses corresponding to 6 ECTS, among which 3 ECTS of french language
- Transverse courses in nanosciences and nanotechnologies (15 ECTS) with a large focus on experimental training in the cleanrooms and nanosciences facilities of the Grenoble area
- Specialization courses in one of the 3 possible specialities, nano-physics, nano-chemistry, nano-biosciences
- A research project of 24 ECTS performed in a research institute during an internship extending over the entire school year

In the second year, student join one of the specialization track in nano-physics, nano-chemistry or nano-biosciences, depending on the courses and the research subject that they have choosen in the first year.

The objective of the Research-Intensive Track is to offer a two year programme in Nanosciences and Nanotechnology for students who intend to pursue in PhD, with a master thesis extending over two years and allowing to achieve a substantial research project.

Admission

- Entry in 1st year : bachelor degree in Chemistry or Physics or equivalent degree

Public continuing education : You report continuing education :

- if you resume your studies after 2 years of interruption of studies
- or if you followed training under the continuous training regime one of the previous 2 years
- or if you are an employee, job seeker, self-employed

If you do not have the diploma required to integrate the training, you can undertake a validation of personal and professional achievements (VAPP)

For more information, visit the website of the Continuing Education and Learning Branch

Do you want to apply and register? Note that the procedure differs according to the diploma envisaged, the diploma obtained, or the place of residence for foreign students. Let yourself be guided simply by following this link

For applicants whose country of residence does not fall under the "Study Portal in France" (PEF), the schedule of the application campaigns for the eCandidat application is available here.

Infos pratiques :

- Composante : UFR PhITEM (physique, ingénierie, terre, environnement, mécanique)
- Durée : 1 an
- Type de formation : Formation initiale / continue
- Lieu :

Contacts

Responsable pédagogique

Train Cyrille
cyrille.train@univ-grenoble-alpes.fr

Secrétariat de scolarité

Application
phitem.candidature.etudiant@univ-grenoble-alpes.fr

Registrar's Office for the Master in Nanosciences and nanotechnologies
phitem.master.nano@univ-grenoble-alpes.fr

Responsable formation continue

Contact FC STS
fc-sts@univ-grenoble-alpes.fr

Programme

Master 1re année

Semestre 7

UE Surfaces and interfaces	3 ECTS
UE Phase Transitions, transport and fluctuations	3 ECTS
UE Practicals in Nanosciences	3 ECTS
UE Research Project	6 ECTS

1 option(s) au choix parmi 2

UE Insertion professionnelle	3 ECTS
UE Français Langue Etrangère (FLE)	3 ECTS

2 option(s) au choix parmi 13

UE From solution to solid	6 ECTS
UE Coordination and supramolecular chemistry	6 ECTS
UE Quantum physics	3 ECTS
UE Solid state, electrons and phonons	3 ECTS
UE Micro and nanofluidics	3 ECTS
UE Mathematics for Biology	3 ECTS
UE Physics and electricity for biology	6 ECTS
UE Molecular biology	6 ECTS
UE Semi-conductors physics	3 ECTS
UE Electromagnetism	3 ECTS
UE Scientific softwares	3 ECTS
UE Optical spectroscopy	3 ECTS
UEs au choix dans la mention ou UE Phelma 6 ECTS	

Semestre 8

UE Nanosciences	6 ECTS
UE Stage de recherche	6 ECTS
UE Research Intensive Track Internship	9 ECTS

2 option(s) au choix parmi 7

UE Mechanics at the micro & nano-scale	3 ECTS
UE Nanophysics with local probes	3 ECTS
UE Electrochemistry and molecular photophysics	6 ECTS
UE Optic and magnetic spectroscopies	3 ECTS
UE Physics of the colloidal domain	6 ECTS
1 à 3 Ues à choix dans la mention ou UE de Phelma pour un maximum de 9 ECTS	

UE FLE	3 ECTS