SCIENCES, TECHNOLOGIES AND HEALTH

Research intensive track 1st year

Master in Nanosciences and nanotechnologies

Duration
1 year

Component
UFR PhITEM (physique, ingénierie, terre, environnement, mécanique)

Language(s) of instruction
English

Presentation

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 21 ECTS performed in a research institute during an internship extending over the 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 program 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.

International education : Internationally-oriented programmes

International dimension

All courses are given in the english language.

Admission

Access conditions

National diploma equivalent to a bachelor degree (licence) in a field compatible with that of the master. Qualification or achievement recognised as equivalent by the admissions board of the Université Grenoble Alpes.

For candidates whose country of residence is not included in the "Studies in France" portal (PEF) scheme, the calendar for the eCandidat application campaigns is available here

Public continuing education : You are in charge of continuing education :

- if you resume your studies after 2 years of interruption of studies
- or if you followed a formation under the regime formation continues one of the 2 preceding 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)

Candidature / Application

Would you like to apply and register ? Be aware that the procedure differs depending on the diploma, the degree obtained, or the place of residence for foreign students. Let us guide you simply by following this link

Fees

Tuition fees 2019-2020: 243 €

Useful info

Contacts

Program director

Cyrille Train

cyrille.train@univ-grenoble-alpes.fr

Program administration

Registrar's Office for the Master in Nanosciences and nanotechnologies

phitem.master.nano@univ-grenoble-alpes.fr

Program administration

Application

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

Course location(s) - City

Grenoble

Campus

Grenoble - University campus

Know more

Master website

https://master-nanosciences.univ-grenoble-alpes.fr

Program

Master 1st year

Semester 7

	Nature	CM	TD	TP	Crédits
UE Surfaces and interfaces	Teaching Unit (UE)	14h	10h		3 credits
UE Research project	Teaching Unit (UE)				6 credits
UE Micro and nanofluidics	Teaching Unit (UE)	14h	10h		3 credits
UE Occupational integration	Teaching Unit (UE)				3 credits
UE French as a foreign language	Teaching Unit (UE)				3 credits
UE Coordination and supramolecular chemistry	Teaching Unit (UE)	31,5h		16h	6 credits
UE Mechanics at the micro & nano-scale	Teaching Unit (UE)	14h	10h		3 credits
UE Solid state, electrons and phonons	Teaching Unit (UE)	18h	9h		3 credits
UE Quantum physics	Teaching Unit (UE)		24h		3 credits
UE Molecular biology	Teaching Unit (UE)	22h	2h	24h	6 credits
UE Semi-conductors physics	Teaching Unit (UE)	16h	10h		3 credits
UE Optical spectroscopy	Teaching Unit (UE)	14h	8h		3 credits
UE Electromagnetism	Teaching Unit (UE)	14h	12h		3 credits
UE Mathematics for biology	Teaching Unit (UE)				3 credits
UE Scientific softwares	Teaching Unit (UE)			20h	3 credits

UE in the specialisation or Phelma	CHOICE				

Semester 8

	Nature	CM	TD	TP	Crédits
UE Nanosciences interdisciplinary practical trainings 1	Teaching Unit (UE)			28h	6 credits
UE Research internship 2	Teaching Unit (UE)				6 credits
UE Phase transition, transport and fluctuations : from nanomaterials to bilogic systems	Teaching Unit (UE)	25h	25h		6 credits
UE Research intensive track internship	Teaching Unit (UE)				9 credits
UE Nanophysics with local probes	Teaching Unit (UE)				3 credits
UE Numerical simulations project	Teaching Unit (UE)				3 credits
UE Polymers 2 physico-chemistry	Teaching Unit (UE)	19h	6h		3 credits
UE in the specialisation or Phelma UE	CHOICE				