NANO2MC

2015 - 2016

Advanced Master in Nanotechnology

At Louvain-la-Neuve - 60 credits - 1 year - Day schedule - In french
Dissertation/Graduation Project : **YES** - Internship : **NO**
Activities in English: **optional** - Activities in other languages : **NO**
Activities on other sites : **optional**
Main study domain : **Sciences de l'ingénieur et technologie**
Organized by: **Ecole Polytechnique de Louvain (EPL)**
Programme code: **nano2mc** - Francophone Certification Framework: 7

Table of contents

Introduction 2
Teaching profile 3
- Learning outcomes 3
- Programme structure 3
- Detailled programme 4
  - Programme by subject 4
  - The programme's courses and learning outcomes 8
Information 9
- Admission 9
- Teaching method 10
- Evaluation 10
- Mobility and/or Internationalisation outlook 10
- Possible trainings at the end of the programme 10
- Contacts 10

NANO2MC - Introduction

Introduction

Introduction

The programme trains in the multidisciplinary aspect of nanotechnologies and offers five specialisations:

- nanophysics: quantum phenomena, molecular transports, spintronics, simulation, physical characterisations, etc.;
- nanochemistry: synthesis of nanoparticles, chemical and physico-chemical characterisation, quantum chemistry, etc.;
- nanoelectronics: micro- and nanoelectronics, MEMS, NEMS, electronic characterisation, etc.;
- nanomaterials: nanocomposites, nanothreads, nanotubes, polymers, etc.;
- nanobiotechnologies: biomaterials, biophysics, nanomedicine, biosensors, etc.

Your profile

This programme is accessible to:

- holders of a master (120) in engineering sciences;
- holders of a master degree (120) in agronomic sciences and bioengineering, sciences, biomedical and pharmaceutical sciences, as well as holders of the academic degree of master in Business Engineering: upon application for admission;
- holders of Belgian and foreign second-cycle degrees: upon application for admission.

Your programme

In each of the specialisations, the training programme is composed of at least 60 credits.

This programme includes:

- a common core of 30 credits including a research work (thesis) done in a laboratory of one of the six institutions organising the Master (27 credits), transversal seminars and a personnel work (3 credits);
- a specialised training (8 to 15 credits);
- options in the form of courses of your choice (15 to 22 credits).

NANO2MC - Teaching profile

Learning outcomes

The Advanced Master in Nanotechnology offers holders of a basic second cycle degree complementary and/or advanced second cycle training in the fields of nanoscience and nanotechnology. It is intended for, on the one hand, those who do not have any training in this field and who wish to specialise in it, or on the other hand, for those who have already taken an option in this field during their Master's and who wish to further their training with a specialisation in another area of nanotechnology, e.g. an electrical engineer wanting to further his/her training in nano-biotechnology.

The Advanced Master in Nanotechnology is a program of 60 credits organised around five main areas of specialisation:

- nanophysics: quantum phenomena, molecular transportation, spintronics, simulation, physical characterisations ...
- nanochemistry: synthesis of nanoparticles, chemical and physico-chemical characterisation, quantum chemistry
- nanoelectronics: micro and nanoelectronics, MEMS, NEMS, electronic characterisation ...
- nanomaterials : nanocomposites, nanofils, nanotubes, nanomedicine, biocaptors ...

This program is also intended to train students in the multidisciplinary aspect of nanotechnology. To this end it puts the accent on the different approaches used in these fields : knowledge of basic phenomena at the nano level, nanomanufacturing or the synthesis of nanostructures, the characterisation of nanostructures and the modelling and numeric simulation at the nano level

It also aims to make stuents aware of the impact on society of nanotechnology by way of interdisciplinary seminars on the following themes : ethics, enonomic perspectives, applications of nanotechnology, toxicity of nanomaterials ...

On successful completion of this programme, each student is able to :

1. mener à son terme une démarche multidisciplinaire de recherche appliquée à la conception et à la fabrication d'un objet fonctionnel dont la taille se situe entre 1 et 100 nm et notamment d'être en mesure d'appliquer au moins deux des quatre compétences suivantes :

1.1. utilisation des notions de phénomènes fondamentaux à l'échelle nanoscopique en vue de concevoir des objets et de matériaux aux propriétés nouvelles,
1.2. synthèse de nanomatériaux ou fabrication de nanostructures fonctionnelles en laboratoire,
1.3. caractérisation des nanostructures pour en connaître la structure et/ou des propriétés fonctionnelles,
1.4. modélisation ou simulation numériquement à l'échelle nanoscopique, en utilisant des outils non-conventionnels, pour prédire des propriétés de l'objet, du matériau ;

2. appliquer la démarche complète de recherche au développement d'un objet fonctionnel dans l'un des domaines suivants : nanophysique, nanochimie, nanoélectronique, nanomatériaux, nanobiotechnologies ;

/

3. estimer l'impact des nanotechnologies sur l'environnement, la santé, le développement économique, l'emploi ;

/

4. organiser son travail de recherche, en équipe de laboratoire, pour le mener à bien

4.1. formuler le cahier des charges du nanomatériau ou du nanodispositif,
4.2. se documenter et résumer l'état des connaissances actuelles dans le domaine de recherche en nanotechnologie,
4.3. mettre en forme un rapport de synthèse visant à expliciter les nouvelles propriétés de l'objet, du matériau, son domaine d'application,
4.4. communiquer oralement et par écrit (sous forme d'article scientifique) les résultats de sa recherche à une équipe d'experts dans le domaine des nanotechnologies.

Programme structure

In each of the areas of specialisation, the program involves a minimum of 60 credits. This program comprises :

- a core curriculum of 30 credits consisting of

. a research work (thesis) carried out in a laboratory of one of the six institutions organising the Master's (27 credits)

. interdisciplinary seminars and an individual assignment (3 credits) : students follow seminars common to the various streams and do an assignment on some interdisciplinary themes such as ethics, enonomic perspectives, applications of nanotechnology, toxicity of nanomaterials ... ; these seminars are organised in turn by the program partners in the form of thematic days ; the interdisciplinary seminars are compulsory for all the streams and involve all the Master's students.

- specialised training (8 to 15 credits) made up of four basic courses in each of the four disciplines (basic phenomena, nanomanufacturing or nanosynthesis, characterisation of nanostructures and simulation at the nano level) : several basic courses are offered for each of the disciplines, in each of the areas of specialisation, adapted to the previous knowledge of the students ; students will be obliged to choose at least one course in each of the four disciplines

- options in the form of electives (15 to 22 credits)

. in function of their previous studies, students will be able to take general courses (maximum 9 credits), in particular in the chemistry and physics of solids, the chemistry and physics of macromolecules, biochemistry and biophysics ...

. students will specialise in one of the five research or application areas while following specialised courses ; they will devise a multidisciplinary training program in function of the topic of their research work.

Within the area of specialisation, students will, with the assistance of an adviser, devise a coherent program which is adapted to their previous knowledge. With the agreement of their adviser, it is possible to take electives outside the area of specialisation, even out of the Master's program. If during their previous studies students have already taken a particular course or one deemed equivalent, they cannot include this in their program.

Whatever the area of specialisation, the program will comprise a minimum of 60 credits. It may be raised to 75 credits if intensive upgrading courses are considered necessary by the committee responsible for the program in function of the student's previous studies (see admission conditions). The program thus constituted will be submitted for approval to the inter-academic committee responsible for the Master's.

> Programme détaillé du master complémentaire en nanotechnologie *[en-prog-2015-nano2mc-lnano202t.html]*

NANO2MC Detailled programme

Programme by subject

CORE COURSES

Le programme de ce master est interuniversitaire. Dans les listes de cours repris ci-dessous, les intitulés des cours sont suivis de leur code UCL s'ils sont organisés par l'UCL ou de l'abréviation d'une autre université s'ils sont enseignés ailleurs. Si le cours est organisé à l'UCL, il est conseillé d'aller en vérifier les attributs (volume horaire, poids ECTS, nom des enseignants, semestre d'enseignement...) en tapant le sigle UCL dans le moteur de recherche par cours disponible sur la page de garde de ce programme. Pour les autres, il faut se référer au site de l'université d'origine du cours.

Par ailleurs, les cours sont également suivis de l'indication suivante entre parenthèses " (P, C, B, E, M) " où une ou plusieurs lettres peuvent être manquantes et remplacées par des tirets "-" . Les lettres P, C, B, E, M indiquent les filières auxquelles ces cours peuvent être rattachés. Pour en comprendre le fonctionnement, il faut se référer aux règles de composition du programme expliquées

dans le chapitre "structure du programme" (cfr. supra). Elles signifient respectivement Nanophysique, Nanochimie, Nanobiologie, Nanoélectronique et Nanomatériaux."

⭘ Mandatory	⊠ Optional
△ Courses not taught during 2015-2016	⊘ Periodic courses not taught during 2015-2016
⊕ Periodic courses taught during 2015-2016	Activity with requisites

Click on the course title to see detailed informations (objectives, methods, evaluation...)

⭘ *Tronc commun du master complémentaire en nanotechnologie*

Les étudiants réalisent un travail de recherche dans un labo d'une des 6 institutions organisant le Master. Ils suivront des séminaires communs aux différentes filières et réaliseront un travail sur un des thèmes transversaux tels que l'éthique, les aspects socio-économiques, les applications des nanotechnologies et la toxicité des nanomatériaux

⭘ LNANO2991	Séminaires sur les aspects éthiques et socio-économiques des nanotechnologies	Bernard Nysten		3 Credits	2q
⭘ LNANO2990	Travail de fin d'études	N.	1h	27 Credits	

⭘ -

L'étudiant suivra au moins un cours de formation de "base" dans chacune des 4 disciplines ci-dessous (phénomènes fondamentaux, nano-fabrication, caractérisation des nanostructures et simulation à l'échelle nanoscopique) pour un volume de min=8 credits parmi

⊠ -

⊠ LNANO2006	Physics of Superconductors (ULG, Cours PHYS0096-1)	N.	30h	4 Credits	1q
⊠ LNANO2008	Chimie des Interfaces et nanostructures (ULB, cours CHIM-F467)	N.	24h+12h	3 Credits	1q
⊠ LNANO2009	Chimie Supramoléculaire (UNamur, Cours SCHIM 203)	N.	22.5h	3 Credits	1q
⊠ LNANO2010	Chimie Théorique Avancée (UNamur, cours SCHIM 102)	N.	37.5h+30h	6 Credits	1q
⊠ LNANO2011	Nanochemistry and Nanotechnology (ULB, cours CHIM-Y080)	N.	24h+24h	4 Credits	1q
⊠ LNANO2012	Nanophysique (ULB, cours PHYS-F475)	N.	24h+24h	5 Credits	2q
⊠ LNANO2013	Moteurs moléculaires et processus stochastiques (ULB, cours PHYS-F512)	N.		3 Credits	2q
⊠ LNANO2014	Chimie des macromolécules biologiques ((ULG, cours BIOC0209-6)	N.	20h	2 Credits	2q
⊠ LNANO2015	Nano-électronique / Opto-électronique (ULG, cours ELEN0069-1)	N.	30h+30h	5 Credits	2q
⊠ LNANO2016	Morphogenèse et Instabilité (UMons, cours UMONS : S-CHIM-049)	N.	30h+15h	5 Credits	2q
⊠ LNANO2018	Physical Chemistry of Nanostructures (ULG, cours CHIM0646-1)	N.	15h	2 Credits	1q
⊠ LNANO2041	Functionnal Materials : theory & modeling (ULG, cours PHYS30003-1)	N.	20h+10h	4 Credits	1q
⊠ LNANO2103	Nano-électronique (UCL, cours LELEC 2710)	N.	30h+30h	5 Credits	1q
⊠ LNANO2104	Physique des nanostructures (UCL, cours LMAPR 2015)	N.	1h	5 Credits	1q
⊠ LNANO2123	Physique de la supraconductivité (UNamur, cours SPHY M114)	N.	22h	3 Credits	1q ⊕

⊠ Filière spécialisée en nano-fabrication, nano-manipulation ou nano-synthèse du master complémentaire en nanotechnologie

⊠ LNANO2105	Micro and Nanofabrication Techniques	N.	30h+30h	5 Credits	2q
⊠ LNANO2017	Biocompatible and nanostructured materials (ULB, cours CHIM-H533)	N.	36h+24h	2 Credits	2q
⊠ LNANO2019	Les nano-matériaux, principes de synthèse et applications (ULG, cours CHIM0088-1)	N.	15h	2 Credits	1q
⊠ LNANO2045	Procédés de microfabrication (ULB, cours MECA-H500)	N.	24h+12h	3 Credits	2q
⊠ LNANO2020	Matériaux nanocomposites polymères (UMons, cours S-CHIM-046)	N.	15h+15h	3 Credits	2q
⊠ LNANO2100	Introduction to microtechnology (ULG, cours MECA0009-1)	N.	30h+30h	5 Credits	2q
⊠ LNANO2101	Ingénierie des nanomatériaux et matériaux divisés (ULG, cours CHIM0072-1)	N.	15h+15h	3 Credits	1q

⊠ Filière spécialisée en caractérisation des nanostructures du master complémentaire en nanotechnologie

⊠ LNANO2003	Caractérisation Physique des Matériaux et des Interfaces (ULG, cours PHYS3013-1)	N.	15h+15h	4 Credits	1q
⊠ LNANO2004	Characterisation of Biomaterials (ULG, cours CHIM9231-1)	N.	15h+15h	4 Credits	1q
⊠ LNANO2005	Spectroscopies électroniques et vibrationnelles (ULG, cours PHYS3012-2)	N.	15h+15h	4 Credits	1q
⊠ LNANO2021	Microscopie électronique, diffraction et EELS (UNamur, Cours NANOM305)	N.	7.5h+7.5h	3 Credits	1q
⊠ LNANO2022	Microscopie et microanalyse à haute résolution (ULB, cours PHYS-H508)	N.	1h	2 Credits	2q
⊠ LNANO2023	Characterization of nanostructures by scanning probe techniques) (ULG, cours CHIM9266-1)	N.	15h	2 Credits	1q
⊠ LNANO2024	Microscopie à sonde locale (UMons, cours S-CHIM-047)	N.	15h+15h	3 Credits	2q
⊠ LNANO2102	Surface Analysis of Materials (ULB, cours CHIM-F438)	N.	36h	4 Credits	2q
⊠ LNANO2106	Caractérisation de surface des matériaux (UCL, cours LBRNA 2102)	N.	52.5h	5 Credits	2q
⊠ LNANO2107	Advanced transistors - Transistors Avancés (UCL, cours LELEC 2541)	N.	30h+30h	5 Credits	2q
⊠ LNANO2108	Analyse et traitement des surfaces solides (UCL, cours LMAPR 2631)	N.	37.5h+15h	5 Credits	2q
⊠ LNANO2120	Spectroscopies Optiques des Surfaces et des Nanostructures (UNamur, Cours SPHY M124)	N.	22h+8h	4 Credits	1q

⊠ Filière spécialisée simulation à l'échelle nanoscopique du master complémentaire en nanotechnologie

⊠ LNANO2109	Simulations atomistiques et nanoscopies (UCL, cours LMAPR 2451)	N.	1h	5 Credits	2q
⊠ LNANO2025	Simulation en Physique des Matériaux (UNamur, cours SPHY M228)	N.	15h+15h	4 Credits	1q
⊠ LNANO2026	Modélisation Moléculaire en Chimie (UMons, cours S-CHIM-075)	N.	15h+15h	4 Credits	1q
⊠ LNANO2027	Physique quantique et applications à la matière condensée (ULG, cours PHYS0046-2)	N.	30h+30h	3 Credits	1q
⊠ LNANO2028	Théorie et Modélisation des Hybrides (ULG, CHIM0090-1)	N.	15h	3 Credits	1q
⊠ LNANO2029	Nanomaterials: Theory and modeling (ULG, cours PHYS3004-1)	N.	20h+10h	3 Credits	1q
⊠ LNANO2121	Physique des matériaux structurés et des nanostructures (UNamur, code cours SPHY M110)	N.	30h+15h	4 Credits	2q
⊠ LNANO2122	Compléments de Chimie quantique (UNamur, cours SCHI M218)	N.	15h	2 Credits	1q ⊕

○ *Cours au choix du master complémentaire en nanotechnologie*

En fonction de sa formation préalable, l'étudiant peut suivre une formation générale de mise à niveau de 9 crédits maximun. Les étudiants suivent en outre de 10 à 22 crédits de cours au choix dans leur option de spécialisation, ou éventuellement en dehors de celle-ci avec l'accord de leur conseiller.

⊠ LNANO2110	Nanobiotechnologies (UCL, cours LBRNA 2202)	N.	30h	3 Credits	2q
⊠ LNANO2111	Special Electronic Devices (UCL, cours LELEC 2550)	N.	30h+30h	5 Credits	1q
⊠ LNANO2112	Design of Micro and Nanosystems (UCL, cours LELEC 2895)	N.	30h+30h	5 Credits	1q
⊠ LNANO2113	Nanotechnologie macromoléculaire (UCL, cours LMAPR 2012)	N.	45h+15h	5 Credits	2q
⊠ LNANO2114	Phénomènes de transport dans les solides et les nanostructures (UCL, cours LMAPR 2471)	N.	30h+30h	5 Credits	2q
⊠ LNANO2115	Nanotechnologie des Formes à Libération Contrôlée (UMons, Cours S-CHIM-077)	N.	15h	2 Credits	
⊠ LNANO2116	Lasers et applications (UCL, cours PHYS 2245)	N.	1h	6 Credits	1q
⊠ LNANO2030	Interactions intermoléculaires (UNamur)	N.	7.5h+7.5h	3 Credits	1q
⊠ LNANO2031	Solid State Properties of Polymers (ULB, cours CHIM-F433)	N.	36h	4 Credits	2q
⊠ LNANO2032	Micro- and Nanobiotechnology (ULB, cours CHIM-Y-085)	N.	13h+26h	3 Credits	2q
⊠ LNANO2033	(Multi)Functional Polymers (ULB cours CHIM-Y510)	N.	12h+24h	3 Credits	2q

⊠ LNANO2034	Théorie quantique des solides et des surfaces (ULB, cours CHIM-F442)	N.	24h	2 Credits	2q
⊠ LNANO2035	Ingénierie moléculaire appliquée au domaine biomédical (ULB, cours MEDI-H505)	N.	24h	2 Credits	1q
⊠ LNANO2037	Dispositifs et machines moléculaires (ULG, cours CHIM0654-1)	N.	15h	2 Credits	2q
⊠ LNANO2038	Apport de l'électrochimie à la chimie macromoléculaire (ULG, cours CHIM9216-1)	N.	1h	1 Credits	2q
⊠ LNANO2039	Application des nanotechnologies au développement de nouveaux médicaments (ULG, cours CHIM9217-1)	N.	10h	1 Credits	1q
⊠ LNANO2040	Molecular logic (ULG, cours CHIM0089-1)	N.	15h	2 Credits	1q
⊠ LNANO2042	Microfluidics (ULG, cours MECA0008-1)	N.	30h+30h	5 Credits	1q
⊠ LNANO2043	Introduction aux nanotechnologies (UMons, cours S-CHIM-045)	N.	15h	2 Credits	1q
⊠ LNANO2117	Chimiométrie (UCL, cours LBIRC 2106)	N.	22.5h+15h	3 Credits	1q
⊠ LNANO2118	Principes de catalyse hétérogène (UCL, cours LBRNA 2201)	N.	52.5h	5 Credits	1q
⊠ LNANO2119	Contrôle statistique de la qualité (UCL, cours LSTAT 2310)	N.	1h	3 Credits	2q
⊠ LNANO2044	Molecular and Biomolecular Engineering ULB, cours CHIM-H518)	N.	24h+12h	3 Credits	2q
⊠ LNANO2046	Composants microtechniques (ULB, cours MECA-H501)	N.	24h+24h	4 Credits	1q
⊠ LNANO2047	Structure des Macromolécules Biologiques (ULG, cours BIOC0720-1)	N.	15h+20h	4 Credits	1q
⊠ LNANO2048	Compléments de protéomique (ULG, cours CHIM0433-1)	N.	20h+10h	3 Credits	2q
⊠ LNANO2049	Chemistry of materials, Inorganic materials (ULG, cours CHIM0637-3)	N.	20h	2 Credits	1q
⊠ LNANO2050	Fluides complexes (ULG, cours PHYS0945-1)	N.	20h+10h	4 Credits	1q
⊠ LNANO2051	Theory of Magnetism (ULG, cours PHYS3023-1)	N.	20h+10h	4 Credits	1q
⊠ LNANO2052	Microsystèmes (ULG, cours ELEN0038-1)	N.	30h+30h	5 Credits	1q

The programme's courses and learning outcomes

For each UCL training programme, a reference framework of learning outcomes specifies the competences expected of every graduate on completion of the programme. You can see the contribution of each teaching unit to the programme's reference framework of learning outcomes in the document "In which teaching units are the competences and learning outcomes in the programme's reference framework developed and mastered by the student?"

The document is available by clicking this link after being authenticated with UCL account.

NANO2MC - Information

Admission

In the event of the divergence between the different linguistic versions of the present conditions, the French version shall prevail

Decree of 7 November 2013 defining the landscape of higher education and the academic organization of studies.
The admission requirements must be met prior to enrolment in the University.

General requirements

Subject to the general requirements laid down by the academic authorities, admission to the specialized Master's degree programme will be granted to students who fulfil the entry requirements for studies leading to the award of a Master's (second-cycle) degree and who hold a second-cycle diploma, degree, certificate or other qualification issued within or outside the French Community of Belgium, or whose prior learning or experience has been accredited by the Examination Board as being equivalent to at least 300 credits.

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Specific Admission Requirements

In accordance with the decree of 31 March 2004 on higher education, encouraging the integration of higher education and financing universities within Europe, the general admission conditions are set out on the website « Conditions d'admission - Masters de spécialisation : https://www.uclouvain.be/68958.html

The specific admission conditions to this program are as follows :

1) Access to the Advanced Master in Nanotechnology is unconditional for holders of a Master's degree of at least 120 credits in study area No.19 of the Sciences de l'Ingénieur awarded by the French-speaking community of Belgium, as well as holders of a similar degree awarded by the Dutch-speaking community of Belgium.

2) Access to the Advanced Master in Nanotechnology is conditional for holders of a Master's degree with at least 120 credits in study areas No.18 in Agronomy and Bioengineering, No. 17 in Science, and No. 15 in Biomedicine and Pharmacy, as well as holders of the degree of Master in Management in the study area No. 10 of Economics and Management awarded by the French-speaking community of Belgium, as well as holders of a similar degree awarded by the Dutch-speaking community of Belgium.

3) Access to the Advanced Master in Nanotechnology is conditional for holders of a Master's degree other than those listed in 1) and 2), as well as holders of a second cycle foreign degree of at least 300 credits. The enrolment procedure is identical to that in 2).

Applications received will be subject to scrutiny by the program committee with a view to admission. The admission application should contain the following items : a letter of motivation, copy of the Master's degree or a document listing successful completion of the program and courses taken. A maximum of 15 credits of prerequisites may be imposed on candidates covered by points 2) and 3).

Personalized access

All Masters (apart from Advanced Masters) are also accessible on application, especially on validation of experience (VAE).

Prérequis :

sur dossier

> En savoir plus

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Accessible to adults

All Masters (apart from Advanced Masters) are also accessible on application, especially on validation of experience (VAE).

Those who do not have a Master's degree in civil engineering awarded by the French-speaking Community of Belgium should submit an admission application to the committee responsible for the Master's (see Contact).

Teaching method

The Advanced Master in Nanotechnology is a resolutely multidisciplinary program, the objective of which is to train students in both theoretical, and experimental and applied approaches in the field of nanotechnology.

By its structure of leaving a very wide choice of courses, this program allows students to construct a program to suit them and their personal needs.

To minimise students' travelling, distance-learning (video-learning) accompanied by supervision will be progressively established.

A variety of the learning structures and scientific approaches is provided by the inter-university organisation of the program.

Evaluation

The evaluation methods comply with the regulations concerning studies and exams. More detailed explanation of the modalities specific to each learning unit are available on their description sheets under the heading "Learning outcomes evaluation method".

The learning activities are evaluated accordiing to the regulations in force at the university (see the examination regulations), viz. written and oral examinations, laboratory examinations, individual or group assignments, public presentations of projects, thesis.

Mobility and/or Internationalisation outlook

To allow access to the Master's program to non-French speaking students, a major part of the program will be given in English.

Most of the laboratories of the teachers involved in the Master's program belong to European networks of excellence (FAME, SINANO, NANOSIL, ...), and international research programs.

Possible trainings at the end of the programme

The Advanced Master in Nanotechnology is intended in particular for holders of a degree in civil engineering, bioengineering, a master's in biology, chemistry, physics, biomedical science or management, wishing to specialise in this field, or advance their training in it. It is characterised by a global approach to the field of nanotechnology, and offers a deliberately multidisciplinary program.

The program is organised conjointly by six universities : FPMs, FUNDP, UCL, ULB, ULg et UMH; the courses are given in these universities. The research work is carried out in one of the laboratories of these universities which is active in the fild of nanotechnology.

These laboratories are members of the Walloon association of nanotechnology (NanoWal). This association also includes research centres and companies active in this field. The students taking the Master's will also have the opportunity to study and carry out research in a resolutely multidisciplinary environment in laboratories which have a strong tradition of collaboration.

With its training and research components, the Advanced Master in Nanotechnology also prepares students for the PhD program. Most of the teachers involved in the Master's are members of the thematic doctoral school MAIN (Science et Ingénierie des Matériaux, des Interfaces et des Nanostructures) which can supervise students wishing to do a PhD.

Contacts

Curriculum Managment

Entite de la structure BSMA

Acronyme	**BSMA**
Dénomination	Bio and soft matter
Adresse	Croix du Sud 1 bte L7.04.02
	1348 Louvain-la-Neuve
Secteur	Secteur des sciences et technologies (SST)
Institut	Institute of Condensed Matter and Nanosciences (IMCN)
Pôle	Bio and soft matter (BSMA)

Academic Supervisor : Bernard NYSTEN

Jury:
Président du Jury : Jean-Didier LEGAT
Secrétaire du Jury : Bernard NYSTEN

Usefull Contacts