A single year

For information, contact :

* Faculty of Sciences, Philippe Ghosez - Philippe.Ghosez@ulg.ac.be

Upgrading course

[...] Depending on the student's previous training and with the agreement of the council of studies, choose, if necessary, courses for a maximum of 9 credits among the following :

HULG2071-1	*Physical chemistry of surfaces* - Marjorie OLIVIER	14	10	-	**2**
HULG2072-1	*Chemistry of solid* - Eric GAIGNEAUX	52,5	-	-	**5**
HULG2073-1	*Electronic devices* - Vincent BAYOT, Denis FLANDRE, Jean-Pierre RASKIN	30	30	-	**5**
HULG2074-1	*Optics and Lasers* - Philippe ANTOINE, Alain CORNET	30	10	-	**5**
HULG2075-1	*Polymer chemistry* - Yves GEERTS	-	-	-	**3**
HULG2076-1	*Physical chemistry of inorganic materials* - Stéphane GODET	-	-	-	**3**
HULG2077-1	*Condensed Matter Physics* - Michèle SFERRAZZA	-	-	-	**3**
BIOC0002-1	*Biochemistry* - Paulette CHARLIER	30	30	-	**5**
BIOC0209-3	*Chemistry of biological macromolecules* - Moreno GALLENI, André MATAGNE - [4h Vis. Ind. Pl.]	60	40	[+]	**9**
BIOC0210-2	*Functional properties of biological macromolecules* - Edwin DE PAUW, André MATAGNE	30	15	-	**5**
TECH0002-1	*Nanotechnology* - Anne-Sophie DUWEZ	30	-	-	**3**

Course programme for the institutions organising the complementary masters

Compulsory courses

NANO0001-1	*Seminars on the ethnical and socio-economic aspects of nanotechnology* - COLLÉGIALITÉ	15	15	-	**3**
SMEM0038-1	*Final thesis* - COLLÉGIALITÉ	-	-	-	**27**

Optional courses

With the agreement of the council of studies choose a module among the following :

Nanobiotechnology

[...] With the agreement of the council of studies choose basic training courses with at least 1 in each of the four above-mentioned discipline, for 8 to 15 credits :

Fundamental Phenomena

HULG2078-1	*Physico-chemistry of interfaces* - Michel MARESCHAL, Michèle SFERRAZZA	24	-	-	**2**
HULG2079-1	*Molecular motors and stochastic processes* - Pierre GASPARD	-	-	-	**3**
BIOC0209-6	*Chemistry of biological macromolecules* - Moreno GALLENI, André MATAGNE	20	-	-	**2**
HULG2080-1	*Physics of soft matter* - Pascal DAMMAN	15	-	-	**2**

Nanofabrication - Nanomanipulation - Nanosynthesis

CHIM0646-1	*Physical chemistry of nanostructures* - Anne-Sophie DUWEZ	15	-	-	**2**
CHIM0088-1	*Nanomaterials, principles of synthesis and application* - Christophe DETREMBLEUR	15	-	-	**2**

Characterisation of nano-structures

HULG2081-1	*Electron microscopy, diffraction and EELS at the nanoscale* - Jean-François COLOMER, Luc HENRARD	15	15	-	**3**
HULG2082-1	*Microscopy and microanalysis, high resolution* - Norbert KRUSE	24	-	-	**2**
NANO0002-1	*Atomic force microscopy and related techniques* - Anne-Sophie DUWEZ	10	-	-	**2**
HULG2083-1	*Local probe microscopy* - Roberto LAZZARONI, Philippe LECLÈRE	15	15	-	**3**

Nanosimulation

CHIM0090-1	*Theory and modeling of hybrid molecular complexes* - Françoise REMACLE	15	-	-	**3**

[...] With the agreement of the council of studies choose specialisation courses for 6 to 22 credits among the following :

Specific training in nanotechnology

HULG2084-1	*Intermolecular interactions* - Catherine MICHAUX, Eric PERPETE	22,5	7,5	-	**4**
HULG2085-1	*Nanobiotechnology* - Yves DUFRÈNE, Christine DUPONT	52,5	-	-	**5**
HULG2086-1	*Macromolecular Nanotechnology* - Sophie DEMOUSTIER, Jean-François GOHY,	45	15	-	**5**

	Alain JONAS, Bernard NYSTEN				
HULG2087-1	*Diagnostic and therapeutic applications of nanotechnology* - N...	20	10	-	**3**
HULG2088-1	*Physical membrane and biological systems* - Michel MARESCHAL, Michèle SFERRAZZA	24	24	-	**4**
CHIM0654-2	*Molecular devices and molecular machines* - Anne-Sophie DUWEZ	10	-	-	**2**
CHIM9216-1	*The contribution of electrochemistry to macromolecular chemistry* - Christine JÉRÔME	10	-	-	**1**
CHIM9217-1	*Application of nanotechnology to develop new medicine* - Brigitte EVRARD, Géraldine PIEL	10	-	-	**1**
PHYS0947-2	*Large Scale Facilities in Condensed Matter Physics, Applications to nanomaterials* (english language) - Jean-Pierre GASPARD - [2d Vis.]	10	10	[+]	**3**
HULG2089-1	*Introduction to Nanotechnology* - Michel WAUTELET	15	-	-	**2**
Complementary training					
HULG2090-1	*Chemometrics* - Bernadette GOVAERTS	22,5	15	-	**3**
HULG2091-1	*Statistical Quality Control* - Anne DE FRENNE, Bernadette GOVAERTS	15	5	-	**3**
HULG2092-1	*Molecular and Biomolecular Engineering* - Kristin BARTIK	-	-	-	**3**
BIOC9233-1	*Structure and Dynamic of biological macromolecules* - Paulette CHARLIER, André MATAGNE - [20h Mon. WS]	20	20	[+]	**6**
CHIM0433-1	*Proteomics* - Edwin DE PAUW, Marianne FILLET, Pierre LEPRINCE	20	10	-	**3**
	Course programme for the institutions organising the complementary masters				
	Other modules from the Advanced Master				

Nanochemistry

[...]	With the agreement of the council of studies choose basic training courses with at least 1 in each of the four above-mentioned discipline, for 8 to 15 credits :				
Fundamental Phenomena					
HULG2093-1	*Physical properties of nanoparticles and nanostructures* - Benoît CHAMPAGNE, Luc HENRARD	22,5	7,5	-	**4**
HULG2078-1	*Physico-chemistry of interfaces* - Michel MARESCHAL, Michèle SFERRAZZA	24	-	-	**2**
HULG2079-1	*Molecular motors and stochastic processes* - Pierre GASPARD	-	-	-	**3**
BIOC0209-6	*Chemistry of biological macromolecules* - Moreno GALLENI, André MATAGNE	20	-	-	**2**
HULG2080-1	*Physics of soft matter* - Pascal DAMMAN	15	-	-	**2**
Nanofabrication - Nanomanipulation - Nanosynthesis					
HULG2094-1	*Nanostructured materials* - Marie-Paule DEPLANCKE, Stéphane GODET	-	-	-	**2**
CHIM0646-1	*Physical chemistry of nanostructures* - Anne-Sophie DUWEZ	15	-	-	**2**
CHIM0088-1	*Nanomaterials, principles of synthesis and application* - Christophe DETREMBLEUR	15	-	-	**2**
HULG2095-1	*Polymer nanocomposite materials* - Philippe DUBOIS	15	-	-	**2**
Characterisation of nano-structures					
HULG2081-1	*Electron microscopy, diffraction and EELS at the nanoscale* - Jean-François COLOMER, Luc HENRARD	15	15	-	**3**
HULG2096-1	*Characterization of materials surface* - Yves DUFRÈNE, Christine DUPONT, Eric GAIGNEAUX	52,5	-	-	**5**
HULG2097-1	*Analysis and processing of solid surfaces* - Patrick BERTRAND, Bernard NYSTEN	37,5	15	-	**4**
HULG2082-1	*Microscopy and microanalysis, high resolution* - Norbert KRUSE	24	-	-	**2**
NANO0002-1	*Atomic force microscopy and related techniques* - Anne-Sophie DUWEZ	10	-	-	**2**
HULG2083-1	*Local probe microscopy* - Roberto LAZZARONI, Philippe LECLÈRE	15	15	-	**3**
Nanosimulation					
HULG2098-1	*Multi-scale simulation in nanoscience* - Benoît CHAMPAGNE, Luc HENRARD	15	15	-	**4**
CHIM0090-1	*Theory and modeling of hybrid molecular complexes* - Françoise REMACLE	15	-	-	**3**
[...]	With the agreement of the council of studies choose specialisation courses for 6 to 22 credits among the following :				
Specific training in nanotechnology					
HULG2084-1	*Intermolecular interactions* - Catherine MICHAUX, Eric PERPETE	22,5	7,5	-	**4**
HULG2085-1	*Nanobiotechnology* - Yves DUFRÈNE, Christine DUPONT	52,5	-	-	**5**
HULG2086-1	*Macromolecular Nanotechnology* - Sophie DEMOUSTIER, Jean-François GOHY, Alain JONAS, Bernard NYSTEN	45	15	-	**5**
HULG2099-1	*Inorganic solids and nanostructured materials* - Norbert KRUSE, François RENIERS	-	-	-	**2**
HULG2100-1	*Organic solids and supramolecular assemblies* - Yves GEERTS	24	-	-	**2**
HULG2101-1	*Structure and reactivity of surfaces* - Claudine HERMAN, Norbert KRUSE	24	-	-	**2**

HULG2114-1	*Quantum theory of solids and surfaces* - Pierre GASPARD	-	-	-	**2**
HULG2088-1	*Physical membrane and biological systems* - Michel MARESCHAL, Michèle SFERRAZZA	24	24	-	**4**
HULG2103-1	*Surface Physics and Surface Characterization* - David Franklin OGLETRÉE	24	12	-	**3**
CHIM0654-2	*Molecular devices and molecular machines* - Anne-Sophie DUWEZ	10	-	-	**2**
CHIM9216-1	*The contribution of electrochemistry to macromolecular chemistry* - Christine JÉRÔME	10	-	-	**1**
CHIM0089-1	*Molecular logic* - Françoise REMACLE	15	-	-	**2**
PHYS0937-1	*Physical functional materials* (english language) - Philippe GHOSEZ	20	10	-	**3**
PHYS0947-2	*Large Scale Facilities in Condensed Matter Physics, Applications to nanomaterials* (english language) - Jean-Pierre GASPARD - [2d Vis.]	10	10	[+]	**3**
HULG2089-1	*Introduction to Nanotechnology* - Michel WAUTELET	15	-	-	**2**
Complementary training					
HULG2090-1	*Chemometrics* - Bernadette GOVAERTS	22,5	15	-	**3**
HULG2104-1	*Principles of heterogeneous catalysis* - Eric GAIGNEAUX	52,5	-	-	**5**
HULG2091-1	*Statistical Quality Control* - Anne DE FRENNE, Bernadette GOVAERTS	15	5	-	**3**
HULG2092-1	*Molecular and Biomolecular Engineering* - Kristin BARTIK	-	-	-	**3**
BIOC9233-1	*Structure and Dynamic of biological macromolecules* - Paulette CHARLIER, André MATAGNE - [20h Mon. WS]	20	20	[+]	**6**
CHIM0433-1	*Proteomics* - Edwin DE PAUW, Marianne FILLET, Pierre LEPRINCE	20	10	-	**3**
CHIM0637-3	*Chemistry of materials, Inorganic materials* - Bénédicte VERTRUYEN	20	-	-	**2**
PHYS0945-1	*Complex fluids* - Nicolas VANDEWALLE	20	10	-	**3**
	Course programme for the institutions organising the complementary masters				
	Other modules from the Advanced Master				

Nanoeletronics

[...] With the agreement of the council of studies choose basic training courses with at least 1 in each of the four above-mentioned discipline, for 8 to 15 credits :

Fundamental Phenomena					
HULG2093-1	*Physical properties of nanoparticles and nanostructures* - Benoît CHAMPAGNE, Luc HENRARD	22,5	7,5	-	**4**
HULG2105-1	*Nano-electronics* - Vincent BAYOT, Denis FLANDRE, Jean-Pierre RASKIN	30	30	-	**5**
HULG2106-1	*Physics of nanostructures* - Jean-Christophe CHARLIER, Xavier GONZE, Luc PIRAUX	37,5	22,5	-	**5**
HULG2107-1	*Nanophysics* - Pierre GASPARD, Marc HOU	-	-	-	**3**
ELEN0069-1	*Nanoelectronics / Optoelectronics* - Benoît VANDERHEYDEN	30	30	-	**5**
Nanofabrication - Nanomanipulation - Nanosynthesis					
HULG2108-1	*Techniques of micro-and nanofabrication* - Vincent BAYOT, Denis FLANDRE, Laurent FRANCIS, Jean-Pierre RASKIN	30	30	-	**5**
CHIM0646-1	*Physical chemistry of nanostructures* - Anne-Sophie DUWEZ	15	-	-	**2**
Characterisation of nano-structures					
HULG2081-1	*Electron microscopy, diffraction and EELS at the nanoscale* - Jean-François COLOMER, Luc HENRARD	15	15	-	**3**
HULG2109-1	*Advanced electronic devices* - Vincent BAYOT, Denis FLANDRE, Jean-Pierre RASKIN	30	30	-	**5**
HULG2082-1	*Microscopy and microanalysis, high resolution* - Norbert KRUSE	24	-	-	**2**
NANO0002-1	*Atomic force microscopy and related techniques* - Anne-Sophie DUWEZ	10	-	-	**2**
Nanosimulation					
HULG2098-1	*Multi-scale simulation in nanoscience* - Benoît CHAMPAGNE, Luc HENRARD	15	15	-	**4**
CHIM0090-1	*Theory and modeling of hybrid molecular complexes* - Françoise REMACLE	15	-	-	**3**

[...] With the agreement of the council of studies choose specialisation courses for 6 to 22 credits among the following :

Specific training in nanotechnology					
HULG2110-1	*Special Electronic Devices* - Vincent BAYOT, Denis FLANDRE, Jean-Pierre RASKIN	30	30	-	**5**
HULG2111-1	*Design of Micro and Nanosystems* - Denis FLANDRE, Laurent FRANCIS, Thomas PARDOEN, Jean-Pierre RASKIN	30	30	-	**5**
HULG2112-1	*Transport phenomena in solids and nanostructures* - Jean-Christophe CHARLIER, Xavier GONZE, Luc PIRAUX	30	30	-	**5**
HULG2113-1	*Lasers and Applications* - N...	45	15	-	**6**
HULG2114-1	*Quantum theory of solids and surfaces* - Pierre GASPARD	-	-	-	**2**

CHIM0089-1	*Molecular logic* - Françoise REMACLE	15	-	-	**2**
PHYS0937-1	*Physical functional materials* (english language) - Philippe GHOSEZ	20	10	-	**3**
PHYS0947-2	*Large Scale Facilities in Condensed Matter Physics, Applications to nanomaterials* (english language) - Jean-Pierre GASPARD - [2d Vis.]	10	10	[+]	**3**
HULG2089-1	*Introduction to Nanotechnology* - Michel WAUTELET	15	-	-	**2**
Complementary training					
HULG2090-1	*Chemometrics* - Bernadette GOVAERTS	22,5	15	-	**3**
HULG2091-1	*Statistical Quality Control* - Anne DE FRENNE, Bernadette GOVAERTS	15	5	-	**3**
HULG2115-1	*Microfabrication processes* - Pierre LAMBERT	-	-	-	**2**
HULG2116-1	*Micro tech components* - Pierre LAMBERT	-	-	-	**3**
	Course programme for the institutions organising the complementary masters				
	Other modules from the Advanced Master				

Nanomaterials

[...] With the agreement of the council of studies choose basic training courses with at least 1 in each of the four above-mentioned discipline, for 8 to 15 credits :

Fundamental Phenomena					
HULG2093-1	*Physical properties of nanoparticles and nanostructures* - Benoît CHAMPAGNE, Luc HENRARD	22,5	7,5	-	**4**
HULG2105-1	*Nano-electronics* - Vincent BAYOT, Denis FLANDRE, Jean-Pierre RASKIN	30	30	-	**5**
HULG2106-1	*Physics of nanostructures* - Jean-Christophe CHARLIER, Xavier GONZE, Luc PIRAUX	37,5	22,5	-	**5**
HULG2078-1	*Physico-chemistry of interfaces* - Michel MARESCHAL, Michèle SFERRAZZA	24	-	-	**2**
HULG2107-1	*Nanophysics* - Pierre GASPARD, Marc HOU	-	-	-	**3**
HULG2079-1	*Molecular motors and stochastic processes* - Pierre GASPARD	-	-	-	**3**
BIOC0209-6	*Chemistry of biological macromolecules* - Moreno GALLENI, André MATAGNE	20	-	-	**2**
ELEN0069-1	*Nanoelectronics / Optoelectronics* - Benoît VANDERHEYDEN	30	30	-	**5**
HULG2080-1	*Physics of soft matter* - Pascal DAMMAN	15	-	-	**2**
Nanofabrication - Nanomanipulation - Nanosynthesis					
HULG2108-1	*Techniques of micro-and nanofabrication* - Vincent BAYOT, Denis FLANDRE, Laurent FRANCIS, Jean-Pierre RASKIN	30	30	-	**5**
HULG2094-1	*Nanostructured materials* - Marie-Paule DEPLANCKE, Stéphane GODET	-	-	-	**2**
CHIM0646-1	*Physical chemistry of nanostructures* - Anne-Sophie DUWEZ	15	-	-	**2**
CHIM0088-1	*Nanomaterials, principles of synthesis and application* - Christophe DETREMBLEUR	15	-	-	**2**
HULG2095-1	*Polymer nanocomposite materials* - Philippe DUBOIS	15	-	-	**2**
Characterisation of nano-structures					
HULG2081-1	*Electron microscopy, diffraction and EELS at the nanoscale* - Jean-François COLOMER, Luc HENRARD	15	15	-	**3**
HULG2096-1	*Characterization of materials surface* - Yves DUFRÈNE, Christine DUPONT, Eric GAIGNEAUX	52,5	-	-	**5**
HULG2109-1	*Advanced electronic devices* - Vincent BAYOT, Denis FLANDRE, Jean-Pierre RASKIN	30	30	-	**5**
HULG2097-1	*Analysis and processing of solid surfaces* - Patrick BERTRAND, Bernard NYSTEN	37,5	15	-	**4**
HULG2082-1	*Microscopy and microanalysis, high resolution* - Norbert KRUSE	24	-	-	**2**
NANO0002-1	*Atomic force microscopy and related techniques* - Anne-Sophie DUWEZ	10	-	-	**2**
HULG2083-1	*Local probe microscopy* - Roberto LAZZARONI, Philippe LECLÈRE	15	15	-	**3**
Nanosimulation					
HULG2098-1	*Multi-scale simulation in nanoscience* - Benoît CHAMPAGNE, Luc HENRARD	15	15	-	**4**
HULG2117-1	*Atomistic and nanoscopic simulations* - Jean-Christophe CHARLIER, Xavier GONZE	30	30	-	**5**
HULG2118-1	*Microscopic simulation methods* - Michel MARESCHAL	-	-	-	**4**
MECA0480-1	*Modelling and simulation of continuum approaches in nanomechnical materials* - Laurent STAINIER	30	30	-	**3**
CHIM0090-1	*Theory and modeling of hybrid molecular complexes* - Françoise REMACLE	15	-	-	**3**
PHYS0950-1	*Nanoparticles and low-dimensional systems* (english language) - Jean-Yves RATY	20	10	-	**3**

[...] With the agreement of the council of studies choose specialisation courses for 6 to 22 credits among the following :

Specific training in nanotechnology					
HULG2085-1	*Nanobiotechnology* - Yves DUFRÈNE, Christine DUPONT	52,5	-	-	**5**
HULG2110-1	*Special Electronic Devices* - Vincent BAYOT, Denis FLANDRE,	30	30	-	**5**

	ASKIN				
HULG2086-1	*Macromolecular Nanotechnology* - Sophie DEMOUSTIER, Jean-François GOHY, Alain JONAS, Bernard NYSTEN	45	15	-	**5**
HULG2112-1	*Transport phenomena in solids and nanostructures* - Jean-Christophe CHARLIER, Xavier GONZE, Luc PIRAUX	30	30	-	**5**
HULG2113-1	*Lasers and Applications* - N...	45	15	-	**6**
HULG2099-1	*Inorganic solids and nanostructured materials* - Norbert KRUSE, François RENIERS	-	-	-	**2**
HULG2100-1	*Organic solids and supramolecular assemblies* - Yves GEERTS	24	-	-	**2**
HULG2101-1	*Structure and reactivity of surfaces* - Claudine HERMAN, Norbert KRUSE	24	-	-	**2**
HULG2114-1	*Quantum theory of solids and surfaces* - Pierre GASPARD	-	-	-	**2**
HULG2088-1	*Physical membrane and biological systems* - Michel MARESCHAL, Michèle SFERRAZZA	24	24	-	**4**
HULG2103-1	*Surface Physics and Surface Characterization* - David Franklin OGLETRÉE	24	12	-	**3**
CHIM0654-2	*Molecular devices and molecular machines* - Anne-Sophie DUWEZ	10	-	-	**2**
CHIM9216-1	*The contribution of electrochemistry to macromolecular chemistry* - Christine JÉRÔME	10	-	-	**1**
CHIM0089-1	*Molecular logic* - Françoise REMACLE	15	-	-	**2**
PHYS0937-1	*Physical functional materials* (english language) - Philippe GHOSEZ	20	10	-	**3**
PHYS0947-2	*Large Scale Facilities in Condensed Matter Physics, Applications to nanomaterials* (english language) - Jean-Pierre GASPARD - [2d Vis.]	10	10	[+]	**3**
HULG2089-1	*Introduction to Nanotechnology* - Michel WAUTELET	15	-	-	**2**
Complementary training					
HULG2090-1	*Chemometrics* - Bernadette GOVAERTS	22,5	15	-	**3**
HULG2104-1	*Principles of heterogeneous catalysis* - Eric GAIGNEAUX	52,5	-	-	**5**
HULG2091-1	*Statistical Quality Control* - Anne DE FRENNE, Bernadette GOVAERTS	15	5	-	**3**
HULG2115-1	*Microfabrication processes* - Pierre LAMBERT	-	-	-	**2**
HULG2116-1	*Micro tech components* - Pierre LAMBERT	-	-	-	**3**
BIOC9233-1	*Structure and Dynamic of biological macromolecules* - Paulette CHARLIER, André MATAGNE - [20h Mon. WS]	20	20	[+]	**6**
CHIM0433-1	*Proteomics* - Edwin DE PAUW, Marianne FILLET, Pierre LEPRINCE	20	10	-	**3**
CHIM0637-3	*Chemistry of materials, Inorganic materials* - Bénédicte VERTRUYEN	20	-	-	**2**
PHYS0945-1	*Complex fluids* - Nicolas VANDEWALLE	20	10	-	**3**
	Course programme for the institutions organising the complementary masters				
	Other modules from the Advanced Master				

Nanophysics

[...] With the agreement of the council of studies choose basic training courses with at least 1 in each of the four above-mentioned discipline, for 8 to 15 credits :

Fundamental Phenomena					
HULG2093-1	*Physical properties of nanoparticles and nanostructures* - Benoît CHAMPAGNE, Luc HENRARD	22,5	7,5	-	**4**
HULG2105-1	*Nano-electronics* - Vincent BAYOT, Denis FLANDRE, Jean-Pierre RASKIN	30	30	-	**5**
HULG2106-1	*Physics of nanostructures* - Jean-Christophe CHARLIER, Xavier GONZE, Luc PIRAUX	37,5	22,5	-	**5**
HULG2078-1	*Physico-chemistry of interfaces* - Michel MARESCHAL, Michèle SFERRAZZA	24	-	-	**2**
HULG2107-1	*Nanophysics* - Pierre GASPARD, Marc HOU	-	-	-	**3**
HULG2079-1	*Molecular motors and stochastic processes* - Pierre GASPARD	-	-	-	**3**
ELEN0069-1	*Nanoelectronics / Optoelectronics* - Benoît VANDERHEYDEN	30	30	-	**5**
HULG2080-1	*Physics of soft matter* - Pascal DAMMAN	15	-	-	**2**
Nanofabrication - Nanomanipulation - Nanosynthesis					
HULG2108-1	*Techniques of micro-and nanofabrication* - Vincent BAYOT, Denis FLANDRE, Laurent FRANCIS, Jean-Pierre RASKIN	30	30	-	**5**
CHIM0646-1	*Physical chemistry of nanostructures* - Anne-Sophie DUWEZ	15	-	-	**2**
Characterisation of nano-structures					
HULG2081-1	*Electron microscopy, diffraction and EELS at the nanoscale* - Jean-François COLOMER, Luc HENRARD	15	15	-	**3**
HULG2097-1	*Analysis and processing of solid surfaces* - Patrick BERTRAND, Bernard NYSTEN	37,5	15	-	**4**
HULG2082-1	*Microscopy and microanalysis, high resolution* - Norbert KRUSE	24	-	-	**2**
NANO0002-1	*Atomic force microscopy and related techniques* - Anne-Sophie DUWEZ	10	-	-	**2**
Nanosimulation					

HULG2098-1	*Multi-scale simulation in nanoscience* - Benoît CHAMPAGNE, Luc HENRARD	15	15	-	**4**
HULG2117-1	*Atomistic and nanoscopic simulations* - Jean-Christophe CHARLIER, Xavier GONZE	30	30	-	**5**
HULG2118-1	*Microscopic simulation methods* - Michel MARESCHAL	-	-	-	**4**
CHIM0090-1	*Theory and modeling of hybrid molecular complexes* - Françoise REMACLE	15	-	-	**3**
PHYS0950-1	*Nanoparticles and low-dimensional systems* (english language) - Jean-Yves RATY	20	10	-	**3**
[...]	With the agreement of the council of studies choose specialisation courses for 6 to 22 credits among the following :				
Specific training in nanotechnology					
HULG2110-1	*Special Electronic Devices* - Vincent BAYOT, Denis FLANDRE, Jean-Pierre RASKIN	30	30	-	**5**
HULG2086-1	*Macromolecular Nanotechnology* - Sophie DEMOUSTIER, Jean-François GOHY, Alain JONAS, Bernard NYSTEN	45	15	-	**5**
HULG2112-1	*Transport phenomena in solids and nanostructures* - Jean-Christophe CHARLIER, Xavier GONZE, Luc PIRAUX	30	30	-	**5**
HULG2113-1	*Lasers and Applications* - N...	45	15	-	**6**
HULG2101-1	*Structure and reactivity of surfaces* - Claudine HERMAN, Norbert KRUSE	24	-	-	**2**
HULG2114-1	*Quantum theory of solids and surfaces* - Pierre GASPARD	-	-	-	**2**
HULG2088-1	*Physical membrane and biological systems* - Michel MARESCHAL, Michèle SFERRAZZA	24	24	-	**4**
HULG2103-1	*Surface Physics and Surface Characterization* - David Franklin OGLETRÉE	24	12	-	**3**
CHIM0089-1	*Molecular logic* - Françoise REMACLE	15	-	-	**2**
PHYS0937-1	*Physical functional materials* (english language) - Philippe GHOSEZ	20	10	-	**3**
PHYS0947-2	*Large Scale Facilities in Condensed Matter Physics, Applications to nanomaterials* (english language) - Jean-Pierre GASPARD - [2d Vis.]	10	10	[+]	**3**
HULG2089-1	*Introduction to Nanotechnology* - Michel WAUTELET	15	-	-	**2**
Complementary training					
HULG2090-1	*Chemometrics* - Bernadette GOVAERTS	22,5	15	-	**3**
HULG2091-1	*Statistical Quality Control* - Anne DE FRENNE, Bernadette GOVAERTS	15	5	-	**3**
CHIM0433-1	*Proteomics* - Edwin DE PAUW, Marianne FILLET, Pierre LEPRINCE	20	10	-	**3**
PHYS0945-1	*Complex fluids* - Nicolas VANDEWALLE	20	10	-	**3**
Course programme for the institutions organising the complementary masters					
	Other modules from the Advanced Master				