

Cycle view of the study programme

		B1	Or	Th	Pr	Au	Cr
Compulsory courses (B1 : 30Cr)							
NANO0001-1	<i>Seminars on the ethnical and socio-economic aspects of nanotechnology</i> - COLLÉGIALITÉ	B1	TA	15	15	-	3
SMEM0038-1	<i>Final thesis</i> - COLLÉGIALITÉ	B1	TA	-	-	-	27
Optional courses (B1 : 30Cr)							
With the approval of the jury, choose courses totalling 30 ECTS from : (B1 : 30Cr)							
[...]	Depending on the student's previous training and with the agreement of the jury, choose, if necessary, courses for a maximum of 9 credits among the course programme for the institutions organising the complementary masters :						
A. Fundamental phenomena at the nanoscale							
Courses organised at the UCL							
HULG2105-1	<i>Nano-electronics</i> - Vincent BAYOT, Denis FLANDRE, JeanPierre RASKIN	B1	Q1	30	30	-	5
HULG2106-1	<i>Physics of nanostructures</i> - JeanChristophe CHARLIER, Xavier GONZE, Luc PIRAUX	B1	Q1	37,5	22,5	-	5
Courses organised at the ULB							
HULG0437-1	<i>Chemistry of interfaces and nanostructures</i> - N...	B1	Q1	24	12	-	3
HULG0438-1	<i>Nanochemistry and nanotechnology</i> (english language) - N...	B1	Q1	24	24	-	4
HULG2079-1	<i>Molecular motors and stochastic processes</i> - Pierre GASPARD	B1	Q1	-	-	-	3
HULG2107-1	<i>Nanophysics</i> - Pierre GASPARD, Marc HOU	B1	Q2	24	24	-	5
Courses organised at the ULg							
CHIM0646-1	<i>Physical chemistry of nanostructures</i> (english language) - AnneSophie DUWEZ	B1	Q1	15	-	-	2
BIOC0724-1	<i>Chemistry of biological macromolecules</i> - Moreno GALLEN, André MATAGNE	B1	Q2	20	-	-	2
PHYS0096-1	<i>Physics of superconductors</i> (english language) - Alejandro SILHANEK	B1	Q1	30	-	-	4
ELEN0069-1	<i>Nanoelectronics / Optoelectronics</i> (english language) - Benoît VANDERHEYDEN - [40h Proj.]	B1	Q2	30	-	[+]	5
PHYS3003-1	<i>Functional Materials : theory and modeling</i> (english language) - Philippe GHOSEZ	B1	Q1	20	10	-	4
Course organised at the UMons							
HULG0439-1	<i>Morphogenesis and instability</i> - N...	B1	Q2	30	15	-	5
Courses organised at the UNamur							
HULG0440-1	<i>Supramolecular chemistry</i> - N...	B1	Q1	22,5	-	-	3
HULG0441-1	<i>Advanced theoretical chemistry</i> - N...	B1	Q1	37,5	30	-	6
B. Nanofabrication, nanomanipulation, nanosynthesis							
Course organised at the UCL							
HULG2108-1	<i>Techniques of micro-and nanofabrication</i> - Vincent BAYOT, Denis FLANDRE, Laurent FRANCIS, JeanPierre RASKIN	B1	Q2	30	30	-	5
Courses organised at the ULB							
HULG2115-1	<i>Microfabrication processes</i> - N...	B1		24	12	-	3

HULG2094-1 *Nanostructured materials* - MariePaule DEPLANCKE, Stéphane GODET B1 Q2 - - - 2

Courses organised at the ULg

CHIM0088-1 *Nanomaterials, principles of synthesis and application* - Christophe DETREMBLEUR B1 Q1 15 - - 2

MECA0009-2 *Introduction to microtechnology* (english language) - Tristan GILET - [8h Labo., 22h Proj.] B1 Q2 12 12 [+] 5

CHIM0072-1 *Nanomaterials and divided materials Ingeneering* - Benoît HEINRICHS, Stéphanie LAMBERT B1 Q1 20 15 - 3

Course organised at the UMons

HULG2095-1 *Polymer nanocomposite materials* - N... B1 Q2 15 15 - 3

C. Characterization of nanostructures

Courses organised at the UCL

HULG0442-1 *Advanced transitors* (english language) - N... B1 Q2 30 30 - 5

HULG2096-1 *Characterization of materials surface* - Yves DUFRÈNE, Christine DUPONT, Eric GAIGNEAUX B1 Q2 52,5 - - 5

HULG2097-1 *Analysis and processing of solid surfaces* - Patrick BERTRAND, Bernard NYSTEN B1 Q2 37,5 15 - 5

Courses organised at the ULB

HULG0443-1 *Surface analysis of materials* (english language) - N... B1 Q2 36 - - 4

HULG2082-1 *Microscopy and microanalysis, high resolution* - Norbert KRUSE B1 24 - - 2

Courses organised at the ULg

NANO0002-1 *Atomic force microscopy and related techniques* - AnneSophie DUWEZ B1 Q1 10 - - 2

PHYS3013-1 *Physical characterization of materials and interfaces* - Ngoc Duy NGUYEN B1 Q1 15 15 - 4

CHIM9266-1 *Characterization of nanostructures by scanning probe techniques* (english language) - AnneSophie DUWEZ B1 Q1 15 - - 2

CHIM9231-1 *Characterization of Biomaterials* (english language) - Edwin DE PAUW, MarieClaire GILLET B1 Q1 15 15 - 4

PHYS3012-2 *Electronic and vibrational spectroscopy* (english language) - Matthieu VERSTRAETE B1 Q1 15 15 - 4

Course organised at the UMons

HULG2083-1 *Local probe microscopy* - Roberto LAZZARONI, Philippe LECLÈRE B1 Q2 15 15 - 3

Courses organised at the UNamur

HULG0444-1 *Optical spectroscopies of surfaces and nanostructures* - N... B1 Q1 22 8 - 4

HULG2081-1 *Electron microscopy, diffraction and EELS at the nanoscale* - N... B1 Q1 7,5 7,5 - 3

D. Simulation at the nanoscale

Course organised at the UCL

HULG2117-1 *Atomistic and nanoscopic simulations* - JeanChristophe CHARLIER, Xavier GONZE B1 Q2 30 30 - 5

Courses organised at the ULg

CHIM0090-1 *Theory and modeling of hybrid molecular complexes* - Françoise REMACLE B1 Q1 15 - - 3

PHYS0046-2 *Quantum physics and applications to Condensed Matter* - Philippe GHOSEZ, Matthieu VERSTRAETE B1 Q1 30 30 - 5

PHYS3004-1 *Nanomaterials : theory and modeling* (english language) - JeanYves RATY B1 Q1 20 10 - 4

Course organised at the UMons

HULG0445-1 *Molecular modeling in chemistry* - N... B1 Q2 15 15 - 4

Course organised at the UNamur

HULG0446-1 *Simulation in materials physics* - N... B1 Q1 15 15 - 4

E. Miscellaneous

Courses organised at the UCL

HULG2085-1 *Nanobiotechnology* - N... B1 Q2 30 - - 3

HULG0447-1 *Special electronic devices* (english language) - N... B1 Q1 30 30 - 5

HULG2111-1 *Design of Micro and Nanosystems* - Denis FLANDRE, Laurent FRANCIS, Thomas PARDOEN, JeanPierre RASKIN B1 Q1 30 30 - 5

HULG2086-1 *Macromolecular Nanotechnology* - Sophie DEMOUSTIER, JeanFrançois GOHY, Alain JONAS, Bernard NYSTEN B1 Q2 45 15 - 5

HULG2112-1 *Transport phenomena in solids and nanostructures* - JeanChristophe CHARLIER, Xavier GONZE, Luc PIRAUX B1 Q2 30 30 - 5

HULG2113-1 *Lasers and Applications* - N... B1 Q2 45 15 - 6

HULG2090-1 *Chemometrics* - Bernadette GOVAERTS B1 Q1 22,5 15 - 3

HULG2104-1 *Principles of heterogeneous catalysis* - Eric GAIGNEAUX B1 Q1 52,5 - - 5

HULG2091-1 *Statistical Quality Control* - Anne DE FRENNE, Bernadette GOVAERTS B1 Q1 15 5 - 3

Courses organised at the ULB

HULG0448-1 *Solid state properties of polymers* (english language) - N... B1 Q2 36 - - 4

HULG0449-1 *Micro- and nanobiotechnology* (english language) - N... B1 Q2 13 26 - 3

HULG0450-1 *(Multi)functional polymers* (english language) - N... B1 Q2 12 24 - 3

HULG2114-1 *Quantum theory of solids and surfaces* - N... B1 Q2 24 - - 2

HULG0451-1 *Molecular engineering applied to the biomedical field* - N... B1 Q1 24 - - 2

HULG0452-1 *Molecular and biomolecular engineering* (english language) - N... B1 Q2 24 12 - 3

HULG2116-1 *Micro tech components* - N... B1 24 24 - 4

Courses organised at the ULg

PHYS0945-1 *Complex fluids* - Nicolas VANDEWALLE B1 Q1 20 10 - 4

CHIM9217-1 *Application of nanotechnology to develop new medicine* - Brigitte EVRARD, Géraldine PIEL B1 10 - - 1

MECA0008-1 *Microfluidics* (english language) - Tristan GILET - [16h Labo., 14h Proj.] B1 Q1 22 8 [+] 5

PHYS3023-1 *Theory of magnetism* (english language) - Eric BOUSQUET B1 Q1 20 10 - 4

CHIM0654-1 *Molecular devices and molecular machines* - AnneSophie DUWEZ B1 Q2 15 - - 2

ELEN0038-1 *Microsystems* (english language) - Michael KRAFT - [20h Labo., 40h Proj.] B1 Q2 30 5 [+] 5

CHIM9233-1 *Molecular logic* (english language) - Françoise REMACLE B1 Q1 15 - - 2

CHIM0433-1 *Proteomics* - Marianne FILLET, Pierre LEPRINCE, B1 Q2 20 10 - 3

AZZUCHELLI

CHIM9216-1	<i>The contribution of electrochemistry to macromolecular chemistry</i> - Christine JÉRÔME	B1	Q2	10	-	-	1
BIOC0720-1	<i>Structure of biological macromolecules</i> - Paulette CHARLIER - [5h Mon. WS]	B1	Q1	15	20	[+]	4
CHIM0637-3	<i>Chemistry of materials, Inorganic materials</i> (english language) - Bénédicte VERTRUYEN	B1	Q1	20	-	-	2

Courses organised at the UMons

HULG0453-1	<i>Nanotechnology of the controlled-release formulations</i> - N...	B1	Q2	15	-	-	2
HULG2089-1	<i>Introduction to Nanotechnology</i> - Michel WAUTELET	B1	Q1	15	-	-	2

Course organised at the UNamur

HULG2084-1	<i>Intermolecular interactions</i> - N...	B1		7,5	7,5	-	3
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