

## Block view of the study programme

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### Bloc 1 du programme de l'année

#### Compulsory courses

CHIM9291-1	<i>structural analysis</i> - Christian DAMBLON, Edwin DE PAUW	Q2	45	-	-	4
CHIM0609-1	<i>Advanced organic chemistry</i> - André LUXEN	Q1	30	-	-	4
CHIM0635-1	<i>Advanced physical chemistry</i> (english language) - Bernard LEYH	Q1	30	-	-	4
CHIM0636-1	<i>Macromolecular physical chemistry</i> (english language) - Christine JÉRÔME	Q1	30	-	-	4
CHIM0637-3	<i>Chemistry of materials, Inorganic materials</i> (english language) - Bénédicte VERTRUYEN	Q1	20	-	-	2
CHIM0637-4	<i>Chemistry of materials, Organic and biological materials</i> (english language) - AnneSophie DUWEZ	Q2	20	-	-	2
BIOC0232-1	<i>Macromolecular biochemistry</i> (english language) - Moreno GALLEN	Q1	30	30	-	4
CHIM0638-1	<i>Surfaces and interfaces</i> (english language) - AnneSophie DUWEZ	Q1	15	-	-	2
CHIM9219-1	<i>Theoretical and quantum chemistry</i> (english language) - Françoise REMACLE - [15h QA Sess.]	Q1	30	15	[+]	4
CHIM0096-1	<i>Nuclear chemistry</i> (english language) - André LUXEN	Q2	15	-	-	2
CHIM0645-1	<i>Integrated research project in laboratory (including group projects and bibliography)</i> - AnneSophie DUWEZ	TA	-	-	-	14

#### Optional courses

Choose courses, with the approval of the Jury, totalling 14 credits among :

CHIM0081-3	<i>Industrial Chemistry Processes, structure of chemical industry</i> - Angélique LÉONARD - [1d FW]	Q1	30	-	[+]	4
BIOL0114-4	<i>Electronic microscopies</i> - Philippe COMPÈRE	Q2	15	-	-	2
CHIM9236-1	<i>Microstructure of Materials : characterization techniques</i> - Catherine HENRIST	Q2	15	-	-	2
CHIM9264-1	<i>Electrical and magnetic properties of materials</i> - Bénédicte VERTRUYEN	Q1	15	-	-	2
CHIM0642-1	<i>Molecular dynamics and photochemistry</i> - Bernard LEYH	Q2	30	-	-	4
BIOC0719-1	<i>Enzymology</i> - André MATAGNE	Q2	15	-	-	2
CHIM9259-2	<i>Analytical techniques in forensic chemistry</i> - JeanFrançois FOCANT	Q2	15	-	-	2
CHIM0218-1	<i>Elements of medicinal chemistry</i> - Bernard PIROTTE	Q2	15	-	-	2
CHIM9265-1	<i>Introduction to continuous flow organic synthesis</i> (english language) - JeanChristophe MONBALIU - [1d Vis.]	Q2	15	10	[+]	4
AESS0255-1	<i>Introduction to chemistry didactics</i> - Bernard LEYH	Q1	15	-	-	2

### Bloc 2 du programme de l'année

#### Compulsory courses

CHIM0651-1	<i>Seminars (all fields of chemistry)</i> - AnneSophie DUWEZ	TA	-	-	-	2
SMEM0016-1	<i>Final thesis</i> - COLLÉGIALITÉ	TA	-	-	-	20

#### Optional courses

Choose, with the accord of the Jury, courses to a total of 8 credits from the list below or from othe ULg Masters programmes or from outside the ULg.

#### Synthesis and materials

CHIM0707-1	<i>Physical organic chemistry</i> - JeanChristophe MONBALIU	Q2	15	-	-	2
CHIM0246-1	<i>New reactions in organic synthesis</i> - Albert DEMONCEAU	Q2	15	-	-	2

CHIM0656-1	<i>Organometallic Catalysis</i> - Lionel DELAUDE	Q1	15	-	-	2
CHIM0219-1	<i>Industrial polymers</i> - Christine JÉRÔME	Q2	15	-	-	2
CHIM0659-1	<i>Polymers and Environment</i> - Philippe LECOMTE, Jutta RIEGER	Q1	15	-	-	2
CHIM9260-1	<i>Properties and applications of surfactants</i> - Guy BROZE, Antoine DEBUIGNE	Q2	15	-	-	2
CHIM0248-1	<i>Advanced ceramic materials : synthesis, characterization and use</i> - Rudi CLOOTS	Q2	15	-	-	2
CHIM0088-1	<i>Nanomaterials, principles of synthesis and application</i> - Christophe DETREMBLEUR	Q1	15	-	-	2
CHIM0654-1	<i>Molecular devices and molecular machines</i> - AnneSophie DUWEZ	Q2	15	-	-	2
<b>Techniques of characterization and analysis</b>						
CHIM0220-1	<i>Recent nuclear magnetic resonance (NMR) methods in chemistry</i> - Christian DAMBLON	Q1	15	-	-	2
CHIM9261-1	<i>Introduction to NMR in solid phase</i> - Christian DAMBLON, Philippe LECOMTE, Bénédicte VERTRUYEN	Q1	15	-	-	2
CHIM9221-1	<i>Advanced techniques in nuclear magnetic resonance of biomolecules</i> - Christian DAMBLON	Q1	15	-	-	2
CHIM0653-1	<i>Imaging and marking techniques</i> - André LUXEN	Q2	15	-	-	2
CHIM0655-1	<i>Advanced mass spectrometry methods</i> - Edwin DE PAUW	Q1	15	-	-	2
CHIM0657-1	<i>Emerging techniques in the science of separation</i> - JeanFrançois FOCANT	Q2	15	-	-	2
CHIM0248-1	<i>Advanced ceramic materials : synthesis, characterization and use</i> - Rudi CLOOTS	Q2	15	-	-	2
CRIS0204-1	<i>Complement of crystallography</i> - Frédéric HATERT	Q2	15	-	-	2
CHIM0693-1	<i>Major instruments for studying the subject</i> - N... - [2d Vis.]	Q2	10	10	[+]	2
<b>Biological chemistry</b>						
CHIM9221-1	<i>Advanced techniques in nuclear magnetic resonance of biomolecules</i> - Christian DAMBLON	Q1	15	-	-	2
CHIM0655-1	<i>Advanced mass spectrometry methods</i> - Edwin DE PAUW	Q1	15	-	-	2
CHIM9262-1	<i>Biomimetic chemistry : when the Man is inspired by nature</i> - Loïc QUINTON	Q2	15	-	-	2
<b>Modelling and molecular dynamics</b>						
CHIM0707-1	<i>Physical organic chemistry</i> - JeanChristophe MONBALIU	Q2	15	-	-	2
CHIM0654-1	<i>Molecular devices and molecular machines</i> - AnneSophie DUWEZ	Q2	15	-	-	2
CHIM0090-1	<i>Theory and modeling of hybrid molecular complexes</i> - Françoise REMACLE	Q1	15	-	-	2
CHIM0089-1	<i>Molecular logic</i> - Françoise REMACLE	Q1	15	-	-	2
CHIM0231-1	<i>Chemical reaction dynamics : experimental approaches</i> - Bernard LEYH	Q1	15	-	-	2
SPAT0054-1	<i>Astrophysics and astrochemistry</i> - Michaël DE BECKER	Q2	15	5	-	2

**Programme of courses for other masters degrees**

[...] Programme of courses of other Master in the ULg and out of the ULg

**Choose one focus from the following :**

**Research Focus**

CHIM0646-1	<i>Physical chemistry of nanostructures (english language)</i> - AnneSophie DUWEZ	Q1	15	-	-	2
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# Study programmes 2015-2016

## Faculty of Sciences

### Master in chemistry (120 ECTS)

CHIM0647-1	<i>Coordination Chemistry and Catalysis</i> - Lionel DELAUDE	Q1	30	-	-	4
CHIM0648-1	<i>Chemometrics and quality systems</i> (english language) - JeanFrançois FOCANT	Q2	15	-	-	2
CHIM0649-1	<i>Molecular Modelling</i> - Françoise REMACLE	Q1	20	-	-	3
CHIM0650-1	<i>Structural biological chemistry</i> (english language) - Christian DAMBLON	Q1	30	-	-	4
CHIM9220-1	<i>Introduction to research</i> - AnneSophie DUWEZ	Q1	-	-	-	2
STRA0027-1	<i>Final thesis complement</i> - COLLÉGIALITÉ	TA	-	-	-	9
STRA0037-1	<i>Final thesis monitoring</i> - COLLÉGIALITÉ	TA	-	-	-	4
<b>Teaching focus</b>						
AESS1216-1	<i>Special didactics in chemistry : course and exercises (1st part)</i> - Bernard LEYH	TA	40	-	-	3
AESS1219-1	<i>Special didactics in chemistry : placements (1st part)</i> - <i>Observation placements</i> - Bernard LEYH - [10h Internship] - <i>Teaching placements</i> - Bernard LEYH - [20h Internship] - <i>Reflexive practical work</i> - Bernard LEYH	TA	-	-	[+] [+] 5	3
AESS2216-1	<i>Special didactics in chemistry : course and exercises (2nd part)</i> - Bernard LEYH	TA	35	-	-	4
AESS2219-1	<i>Special didactics in chemistry : placements (2nd part)</i> - <i>Teaching placements</i> - Bernard LEYH - [20h Internship] - <i>Reflexive practical work</i> - Bernard LEYH - <i>Extra-scholar teaching activities</i> - Bernard LEYH	TA	-	-	[+] 5 10	5
AESS0202-1	<i>General didactics: course and exercises ; observation placements ; reflexive practices</i> - Annick FAGNANT - [10h Internship]	TA	30	10	[+]	4
AESS0246-1	<i>Analysis of scholastic institutions and key-players, educational policies</i> - Dominique LAFONTAINE - Suppl : MarieThérèse DELHOUNE	Q1	15	-	-	1
AESS0248-1	<i>Elements of sociology of education</i> - JeanFrançois GUILLAUME	Q2	10	-	-	1
AESS0004-1	<i>Media education</i> - Jérémy HAMERS	Q1	15	-	-	1
AESS0249-1	<i>Interdisciplinary seminar</i> - Annick FAGNANT	Q2	15	-	-	1
AESS0140-1	<i>Professional ethics and training to neutrality and citizenship</i> - Anne HERLA	Q2	25	-	-	2
AESS0143-1	<i>Educational Psychology of adolescents and young adults</i> - Annick FAGNANT	Q1	15	-	-	2
AESS0339-1	<i>Understand and manage the diversity of public schools</i> - Ariane BAYE	Q2	10	15	-	3
<b>Professional Focus</b>						
CHIM0022-3	<i>Transport phenomena</i> (english language) - Andreas PFENNIG	Q1	30	-	-	4
CHIM0679-1	<i>Introduction to quality assurance</i> (english language) - JeanFrançois FOCANT	Q2	15	-	-	2
CHIM0074-2	<i>Seminars on industrial security</i> - JeanLuc BOZET, Angélique LÉONARD, Dominique TOYE - [2d FW]	Q1	15	-	[+]	2
TOXI0004-1	<i>Principles of toxicology</i> - Corinne CHARLIER	Q1	20	-	-	3
GEST3002-1	<i>Human Resources</i> - Jocelyne ROBERT	Q1	24	-	-	3
SSTG0008-1	<i>Internship</i> - COLLÉGIALITÉ	TA	-	-	-	14
SSTG0028-1	<i>Placement monitoring</i> - COLLÉGIALITÉ	TA	-	-	-	2

#### Bloc d'aménagement du programme de l'année

### Additional ECTS Master in chemistry (120 ECTS)

ULg : Students and Studies Administration - Academic Affairs  
 Contact : Monique Marcourt, General Director for Education and Training  
 Date of data : 31/05/2016 - Page 3 / 9

### Optional courses

Students will follow a study programme worth 15 to 60 ECTS selected from the courses below. The programme will be established by the master's jury for each student according to their qualifications.

CHIM0704-1	<i>Theoretical chemistry</i> - Françoise REMACLE - [15h QA Sess.]	Q1	25	-	[+]	4
CHIM9287-1	<i>Theoretical and quantum Chemistry</i> - Françoise REMACLE - [15h QA Sess.]	Q1	30	-	[+]	4
CHIM9288-1	<i>Spectroscopy and statistical thermodynamics elements</i> - Bernard LEYH - [20h QA Sess.]	Q1	30	-	[+]	4
CHIM0278-1	<i>Organic chemistry III</i> - Lionel DELAUDE - [15h QA Sess.]	Q1	30	55	[+]	8
CHIM9289-1	<i>Analytical Chemistry III - Physical Methods</i> - Gauthier EPPE - [15h QA Sess.]	Q1	30	65	[+]	8
CHIM0678-1	<i>Biochemistry</i> - André MATAGNE	Q1	30	-	-	3
INFO0202-1	<i>Programming Methods Applied to Chemistry</i> - Alejandro SILHANEK	Q2	15	15	-	2
PHYS0968-1	<i>Mathematics of data reduction</i> - Alejandro SILHANEK	Q2	25	20	-	4
CHIM9285-1	<i>Chemical Kinetics, Introduction to Spectrology and Group Theory</i> - Bernard LEYH - [20h QA Sess.]	Q2	35	-	[+]	6
CHIM9291-1	<i>structural analysis</i> - Christian DAMBLON, Edwin DE PAUW	Q2	45	-	-	4
CHIM0209-2	<i>Inorganic chemistry</i> - Bénédicte VERTRUYEN - [5h QA Sess., 1d Vis. Ind. Pl. ]	Q2	30	70	[+]	8
CHIM0283-4	<i>Chemistry of the macromolecules</i> - Christine JÉRÔME	Q2	20	20	-	3
PHIL0201-1	<i>Elements of sciences philosophy</i> - Julien PIERON	Q2	15	-	-	2
CHIM9292-1	<i>chemical Kinetics</i> - Bernard LEYH - [10h QA Sess.]	Q2	20	-	[+]	3
CHIM9293-1	<i>spectroscopy Integrated laboratory</i> - Christian DAMBLON, Edwin DE PAUW, Gauthier EPPE, Bernard LEYH, JeanChristophe MONBALIU, Françoise REMACLE	Q2	-	105	-	6
CHIM9294-1	<i>Bibliographic research, research project</i> - Caroline COLLETTE, Nicolas WILLET - [30h Internship]	Q2	5	-	[+]	2
LANG0077-1	<i>English 2 (english language)</i> - Véronique DOPPAGNE, ISLV	TA	45	-	-	4
LANG0082-1	<i>English 3 (english language)</i> - Clara BRERETON, Véronique DOPPAGNE, Ellen HARRY, ISLV	TA	45	-	-	4

## Programme transitoire à destination des étudiants ayant réussi leur master 1 de "Master en sciences chimiques, à finalité spécialisée" en 2014-2015

### Bloc 1 du programme de l'année

#### Optional courses

##### Follow-up to the focus chosen in first year

##### Professional Focus

CHIM0022-3	<i>Transport phenomena (english language)</i> - Andreas PFENNIG	Q1	30	-	-	4
CHIM0679-1	<i>Introduction to quality assurance (english language)</i> - JeanFrançois FOCANT	Q2	15	-	-	2
CHIM0074-2	<i>Seminars on industrial security</i> - JeanLuc BOZET, Angélique LÉONARD, Dominique TOYE - [2d FW]	Q1	15	-	[+]	2
TOXI0004-1	<i>Principles of toxicology</i> - Corinne CHARLIER	Q1	20	-	-	3

GEST3002-1	<i>Human Resources</i> - Jocelyne ROBERT	Q1	24	-	-	3
SSTG0008-1	<i>Internship</i> - COLLÉGIALITÉ	TA	-	-	-	14
SSTG0028-1	<i>Placement monitoring</i> - COLLÉGIALITÉ	TA	-	-	-	2

#### Compulsory courses

CHIM0651-1	<i>Seminars (all fields of chemistry)</i> - AnneSophie DUWEZ	TA	-	-	-	2
SMEM0016-1	<i>Final thesis</i> - COLLÉGIALITÉ	TA	-	-	-	20

#### Optional courses

Choose courses totalling 8 ECTS from the following :

##### Synthesis and materials

CHIM0707-1	<i>Physical organic chemistry</i> - JeanChristophe MONBALIU	Q2	15	-	-	2
CHIM0246-1	<i>New reactions in organic synthesis</i> - Albert DEMONCEAU	Q2	15	-	-	2
CHIM0656-1	<i>Organometallic Catalysis</i> - Lionel DELAUDE	Q1	15	-	-	2
CHIM0219-1	<i>Industrial polymers</i> - Christine JÉRÔME	Q2	15	-	-	2
CHIM0659-1	<i>Polymers and Environment</i> - Philippe LECOMTE, Jutta RIEGER	Q1	15	-	-	2
CHIM9260-1	<i>Properties and applications of surfactants</i> - Guy BROZE, Antoine DEBUIGNE	Q2	15	-	-	2
CHIM0248-1	<i>Advanced ceramic materials : synthesis, characterization and use</i> - Rudi CLOOTS	Q2	15	-	-	2
CHIM0088-1	<i>Nanomaterials, principles of synthesis and application</i> - Christophe DETREMBLEUR	Q1	15	-	-	2
CHIM0654-1	<i>Molecular devices and molecular machines</i> - AnneSophie DUWEZ	Q2	15	-	-	2

##### Techniques of characterization and analysis

CHIM0220-1	<i>Recent nuclear magnetic resonance (NMR) methods in chemistry</i> - Christian DAMBLON	Q1	15	-	-	2
CHIM9261-1	<i>Introduction to NMR in solid phase</i> - Christian DAMBLON, Philippe LECOMTE, Bénédicte VERTRUYEN	Q1	15	-	-	2
CHIM9221-1	<i>Advanced techniques in nuclear magnetic resonance of biomolecules</i> - Christian DAMBLON	Q1	15	-	-	2
CHIM0653-1	<i>Imaging and marking techniques</i> - André LUXEN	Q2	15	-	-	2
CHIM0655-1	<i>Advanced mass spectrometry methods</i> - Edwin DE PAUW	Q1	15	-	-	2
CHIM0657-1	<i>Emerging techniques in the science of separation</i> - JeanFrançois FOCANT	Q2	15	-	-	2
CHIM0248-1	<i>Advanced ceramic materials : synthesis, characterization and use</i> - Rudi CLOOTS	Q2	15	-	-	2
CRIS0204-1	<i>Complement of crystallography</i> - Frédéric HATERT	Q2	15	-	-	2
CHIM0693-1	<i>Major instruments for studying the subject</i> - N... - [2d Vis.]	Q2	10	10	[+]	2

##### Biological chemistry

CHIM9221-1	<i>Advanced techniques in nuclear magnetic resonance of biomolecules</i> - Christian DAMBLON	Q1	15	-	-	2
CHIM0655-1	<i>Advanced mass spectrometry methods</i> - Edwin DE PAUW	Q1	15	-	-	2
CHIM9262-1	<i>Biomimetic chemistry : when the Man is inspired by nature</i> - Loïc QUINTON	Q2	15	-	-	2

##### Modelling and molecular dynamics

CHIM0707-1	<i>Physical organic chemistry</i> - JeanChristophe MONBALIU	Q2	15	-	-	2
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CHIM0654-1	<i>Molecular devices and molecular machines</i> - AnneSophie DUWEZ	Q2	15	-	-	2
CHIM0090-1	<i>Theory and modeling of hybrid molecular complexes</i> - Françoise REMACLE	Q1	15	-	-	2
CHIM0089-1	<i>Molecular logic</i> - Françoise REMACLE	Q1	15	-	-	2
CHIM0231-1	<i>Chemical reaction dynamics : experimental approaches</i> - Bernard LEYH	Q1	15	-	-	2
SPAT0054-1	<i>Astrophysics and astrochemistry</i> - Michaël DE BECKER	Q2	15	5	-	2

**Programme of courses for other masters degrees**

[...] Programme of courses of other Master in the ULg and out of the ULg

**Programme transitoire à destination des étudiants ayant réussi leur master 1 de  
"Master en sciences chimiques, à finalité didactique" en 2014-2015**

**Bloc 1 du programme de l'année**

**Optional courses**

**Follow-up to the focus chosen in first year**

**Teaching focus**

AESS1216-1	<i>Special didactics in chemistry : course and exercises (1st part)</i> - Bernard LEYH	TA	40	-	-	3
AESS1219-1	<i>Special didactics in chemistry : placements (1st part)</i> - <i>Observation placements</i> - Bernard LEYH - [10h Internship] - <i>Teaching placements</i> - Bernard LEYH - [20h Internship] - <i>Reflexive practical work</i> - Bernard LEYH	TA				3
					[+]	
					[+]	
				5	-	
AESS2216-1	<i>Special didactics in chemistry : course and exercises (2nd part)</i> - Bernard LEYH	TA	35	-	-	4
AESS2219-1	<i>Special didactics in chemistry : placements (2nd part)</i> - <i>Teaching placements</i> - Bernard LEYH - [20h Internship] - <i>Reflexive practical work</i> - Bernard LEYH - <i>Extra-scholar teaching activities</i> - Bernard LEYH	TA				5
					[+]	
				5	-	
				10	-	
AESS0202-1	<i>General didactics: course and exercises ; observation placements ; reflexive practices</i> - Annick FAGNANT - [10h Internship]	TA	30	10	[+]	4
AESS0246-1	<i>Analysis of scholastic institutions and key-players, educational policies</i> - Dominique LAFONTAINE - Suppl : MarieThérèse DELHOUNE	Q1	15	-	-	1
AESS0248-1	<i>Elements of sociology of education</i> - JeanFrançois GUILLAUME	Q2	10	-	-	1
AESS0004-1	<i>Media education</i> - Jérémy HAMERS	Q1	15	-	-	1
AESS0249-1	<i>Interdisciplinary seminar</i> - Annick FAGNANT	Q2	15	-	-	1
AESS0140-1	<i>Professional ethics and training to neutrality and citizenship</i> - Anne HERLA	Q2	25	-	-	2
AESS0143-1	<i>Educational Psychology of adolescents and young adults</i> - Annick FAGNANT	Q1	15	-	-	2
AESS0339-1	<i>Understand and manage the diversity of public schools</i> - Ariane BAYE	Q2	10	15	-	3

**Compulsory courses**

CHIM0651-1	<i>Seminars (all fields of chemistry)</i> - AnneSophie DUWEZ	TA	-	-	-	2
SMEM0016-1	<i>Final thesis</i> - COLLÉGIALITÉ	TA	-	-	-	20

**Optional courses**

Choose courses totalling 8 ECTS from the following :

**Synthesis and materials**

CHIM0707-1	<i>Physical organic chemistry</i> - JeanChristophe MONBALIU	Q2	15	-	-	2
CHIM0246-1	<i>New reactions in organic synthesis</i> - Albert DEMONCEAU	Q2	15	-	-	2
CHIM0656-1	<i>Organometallic Catalysis</i> - Lionel DELAUDE	Q1	15	-	-	2
CHIM0219-1	<i>Industrial polymers</i> - Christine JÉRÔME	Q2	15	-	-	2
CHIM0659-1	<i>Polymers and Environment</i> - Philippe LECOMTE, Jutta RIEGER	Q1	15	-	-	2
CHIM9260-1	<i>Properties and applications of surfactants</i> - Guy BROZE, Antoine DEBUIGNE	Q2	15	-	-	2
CHIM0248-1	<i>Advanced ceramic materials : synthesis, characterization and use</i> - Rudi CLOOTS	Q2	15	-	-	2
CHIM0088-1	<i>Nanomaterials, principles of synthesis and application</i> - Christophe DETREMBLEUR	Q1	15	-	-	2
CHIM0654-1	<i>Molecular devices and molecular machines</i> - AnneSophie DUWEZ	Q2	15	-	-	2

**Techniques of characterization and analysis**

CHIM0220-1	<i>Recent nuclear magnetic resonance (NMR) methods in chemistry</i> - Christian DAMBLON	Q1	15	-	-	2
CHIM9261-1	<i>Introduction to NMR in solid phase</i> - Christian DAMBLON, Philippe LECOMTE, Bénédicte VERTRUYEN	Q1	15	-	-	2
CHIM9221-1	<i>Advanced techniques in nuclear magnetic resonance of biomolecules</i> - Christian DAMBLON	Q1	15	-	-	2
CHIM0653-1	<i>Imaging and marking techniques</i> - André LUXEN	Q2	15	-	-	2
CHIM0655-1	<i>Advanced mass spectrometry methods</i> - Edwin DE PAUW	Q1	15	-	-	2
CHIM0657-1	<i>Emerging techniques in the science of separation</i> - JeanFrançois FOCANT	Q2	15	-	-	2
CHIM0248-1	<i>Advanced ceramic materials : synthesis, characterization and use</i> - Rudi CLOOTS	Q2	15	-	-	2
CRIS0204-1	<i>Complement of crystallography</i> - Frédéric HATERT	Q2	15	-	-	2
CHIM0693-1	<i>Major instruments for studying the subject</i> - N... - [2d Vis.]	Q2	10	10	[+]	2

**Biological chemistry**

CHIM9221-1	<i>Advanced techniques in nuclear magnetic resonance of biomolecules</i> - Christian DAMBLON	Q1	15	-	-	2
CHIM0655-1	<i>Advanced mass spectrometry methods</i> - Edwin DE PAUW	Q1	15	-	-	2
CHIM9262-1	<i>Biomimetic chemistry : when the Man is inspired by nature</i> - Loïc QUINTON	Q2	15	-	-	2

**Modelling and molecular dynamics**

CHIM0707-1	<i>Physical organic chemistry</i> - JeanChristophe MONBALIU	Q2	15	-	-	2
CHIM0654-1	<i>Molecular devices and molecular machines</i> - AnneSophie DUWEZ	Q2	15	-	-	2
CHIM0090-1	<i>Theory and modeling of hybrid molecular complexes</i> - Françoise REMACLE	Q1	15	-	-	2
CHIM0089-1	<i>Molecular logic</i> - Françoise REMACLE	Q1	15	-	-	2
CHIM0231-1	<i>Chemical reaction dynamics : experimental approaches</i> - Bernard LEYH	Q1	15	-	-	2
SPAT0054-1	<i>Astrophysics and astrochemistry</i> - Michaël DE BECKER	Q2	15	5	-	2

**Programme of courses for other masters degrees**

[...] Programme of courses of other Master in the ULg and out of the ULg

## Programme transitoire à destination des étudiants ayant réussi leur master 1 de "Master en sciences chimiques, à finalité approfondie" en 2014-2015

### Bloc 1 du programme de l'année

#### Optional courses

##### Follow-up to the focus chosen in first year

##### Research Focus

CHIM0646-1	<i>Physical chemistry of nanostructures</i> (english language) - AnneSophie DUWEZ	Q1	15	-	-	2
CHIM0647-1	<i>Coordination Chemistry and Catalysis</i> - Lionel DELAUDE	Q1	30	-	-	4
CHIM0648-1	<i>Chemometrics and quality systems</i> (english language) - JeanFrançois FOCANT	Q2	15	-	-	2
CHIM0649-1	<i>Molecular Modelling</i> - Françoise REMACLE	Q1	20	-	-	3
CHIM0650-1	<i>Structural biological chemistry</i> (english language) - Christian DAMBLON	Q1	30	-	-	4
CHIM9220-1	<i>Introduction to research</i> - AnneSophie DUWEZ	Q1	-	-	-	2
STRA0027-1	<i>Final thesis complement</i> - COLLÉGIALITÉ	TA	-	-	-	9
STRA0037-1	<i>Final thesis monitoring</i> - COLLÉGIALITÉ	TA	-	-	-	4

#### Compulsory courses

CHIM0651-1	<i>Seminars (all fields of chemistry)</i> - AnneSophie DUWEZ	TA	-	-	-	2
SMEM0016-1	<i>Final thesis</i> - COLLÉGIALITÉ	TA	-	-	-	20

#### Optional courses

Choose courses totalling 8 ECTS from the following :

##### Synthesis and materials

CHIM0707-1	<i>Physical organic chemistry</i> - JeanChristophe MONBALIU	Q2	15	-	-	2
CHIM0246-1	<i>New reactions in organic synthesis</i> - Albert DEMONCEAU	Q2	15	-	-	2
CHIM0656-1	<i>Organometallic Catalysis</i> - Lionel DELAUDE	Q1	15	-	-	2
CHIM0219-1	<i>Industrial polymers</i> - Christine JÉRÔME	Q2	15	-	-	2
CHIM0659-1	<i>Polymers and Environment</i> - Philippe LECOMTE, Jutta RIEGER	Q1	15	-	-	2
CHIM9260-1	<i>Properties and applications of surfactants</i> - Guy BROZE, Antoine DEBUIGNE	Q2	15	-	-	2
CHIM0248-1	<i>Advanced ceramic materials : synthesis, characterization and use</i> - Rudi CLOOTS	Q2	15	-	-	2
CHIM0088-1	<i>Nanomaterials, principles of synthesis and application</i> - Christophe DETREMBLEUR	Q1	15	-	-	2
CHIM0654-1	<i>Molecular devices and molecular machines</i> - AnneSophie DUWEZ	Q2	15	-	-	2

##### Techniques of characterization and analysis

CHIM0220-1	<i>Recent nuclear magnetic resonance (NMR) methods in chemistry</i> - Christian DAMBLON	Q1	15	-	-	2
CHIM9261-1	<i>Introduction to NMR in solid phase</i> - Christian DAMBLON, Philippe LECOMTE, Bénédicte VERTRUYEN	Q1	15	-	-	2

CHIM9221-1	<i>Advanced techniques in nuclear magnetic resonance of biomolecules</i> - Christian DAMBLON	Q1	15	-	-	2
CHIM0653-1	<i>Imaging and marking techniques</i> - André LUXEN	Q2	15	-	-	2
CHIM0655-1	<i>Advanced mass spectrometry methods</i> - Edwin DE PAUW	Q1	15	-	-	2
CHIM0657-1	<i>Emerging techniques in the science of separation</i> - JeanFrançois FOCANT	Q2	15	-	-	2
CHIM0248-1	<i>Advanced ceramic materials : synthesis, characterization and use</i> - Rudi CLOOTS	Q2	15	-	-	2
CRIS0204-1	<i>Complement of crystallography</i> - Frédéric HATERT	Q2	15	-	-	2
CHIM0693-1	<i>Major instruments for studying the subject</i> - N... - [2d Vis.]	Q2	10	10	[+]	2
<b>Biological chemistry</b>						
CHIM9221-1	<i>Advanced techniques in nuclear magnetic resonance of biomolecules</i> - Christian DAMBLON	Q1	15	-	-	2
CHIM0655-1	<i>Advanced mass spectrometry methods</i> - Edwin DE PAUW	Q1	15	-	-	2
CHIM9262-1	<i>Biomimetic chemistry : when the Man is inspired by nature</i> - Loïc QUINTON	Q2	15	-	-	2
<b>Modelling and molecular dynamics</b>						
CHIM0707-1	<i>Physical organic chemistry</i> - JeanChristophe MONBALIU	Q2	15	-	-	2
CHIM0654-1	<i>Molecular devices and molecular machines</i> - AnneSophie DUWEZ	Q2	15	-	-	2
CHIM0090-1	<i>Theory and modeling of hybrid molecular complexes</i> - Françoise REMACLE	Q1	15	-	-	2
CHIM0089-1	<i>Molecular logic</i> - Françoise REMACLE	Q1	15	-	-	2
CHIM0231-1	<i>Chemical reaction dynamics : experimental approaches</i> - Bernard LEYH	Q1	15	-	-	2
SPAT0054-1	<i>Astrophysics and astrochemistry</i> - Michaël DE BECKER	Q2	15	5	-	2

**Programme of courses for other masters degrees**

[...] Programme of courses of other Master in the ULg and out of the ULg