

#### Cycle view of the study programme

	B1	Or	Th	Pr	Au	Cr
<b>Compulsory courses (B1 : 60Cr, B2 : 48Cr, B3 : 48Cr)</b>						
MATH0073-1 <i>Elementary mathematics</i> - Julien LEROY - [15h Mon. WS]	B1	Q1	30	30	[+]	7
MATH0069-1 <i>Matrix calculation</i> - Michel RIGO	B1	Q1	30	25	-	7
MATH0071-1 <i>Fundamental analysis, part 1</i> - Samuel NICOLAY	B1	Q1	45	30	-	8
PHYS1985-1 <i>General physics I</i> - John MARTIN, Nicolas VANDEWALLE	B1	Q1	40	40	-	7
LANG2967-2 <i>English: introduction (english language)</i> - Véronique DOPPAGNE	B1	Q1	30	-	-	2
MATH0070-1 <i>Linear algebra</i> - Michel RIGO	B1	Q2	30	25	-	6
MATH0072-1 <i>Fundamental analysis, part 2</i> - Samuel NICOLAY	B1	Q2	45	30	-	7
MATH1203-1 <i>Geometry I</i> - <i>Elements of affine and Euclidian geometry</i> - Pierre MATHONET - <i>Additional affine and Euclidian geometry</i> - Pierre MATHONET	B1	Q2	25	15	-	7
MATH1472-1 <i>Descriptive statistics and data analysis</i> - Arnout VAN MESSEM - [10h Mon. WS]	B1	Q2	25	15	[+]	5
MATH2010-1 <i>Mathematical software</i> - Emilie CHARLIER	B1	Q2	15	30	-	4
MATH0080-1 <i>Differential calculus</i> - JeanPierre SCHNEIDERS <b>Prerequisite :</b> MATH0072-1 - Analyse fondamentale, partie 2 MATH0071-1 - Analyse fondamentale, partie 1 <b>Corequisite :</b> MATH2011-1 - Compléments d'algèbre linéaire	B2	Q1	30	30	-	6
MATH2011-1 <i>Linear algebra supplements</i> - Laurent LOOSVELDT <b>Prerequisite :</b> MATH0070-1 - Algèbre linéaire MATH0069-1 - Calcul matriciel	B2	Q1	30	20	-	5
MATH0503-1 <i>Logic and mathematical approach of programming</i> - Michel RIGO - [30h Mon. WS] <b>Prerequisite :</b> MATH2010-1 - Logiciels mathématiques	B2	Q1	20	-	[+]	5
MATH0499-1 <i>Graph theory</i> - Michel RIGO <b>Prerequisite :</b> MATH0070-1 - Algèbre linéaire	B2	Q1	25	20	-	4
MATH0248-1 <i>Geometry II</i> - Pierre MATHONET <b>Prerequisite :</b> MATH1203-1 - Géométrie I MATH0070-1 - Algèbre linéaire	B2	Q2	30	30	-	6
MATH2006-2 <i>Introduction to numerical analysis</i> - JeanPierre SCHNEIDERS <b>Prerequisite :</b> MATH0072-1 - Analyse fondamentale, partie 2 MATH0071-1 - Analyse fondamentale, partie 1 <b>Corequisite :</b> MATH0503-1 - Logique et approche mathématique de la programmation	B2	Q2	30	30	-	6
MATH0081-1 <i>Integral calculation</i> - Samuel NICOLAY <b>Prerequisite :</b> MATH0072-1 - Analyse fondamentale, partie 2 MATH0071-1 - Analyse fondamentale, partie 1 <b>Corequisite :</b> MATH0080-1 - Calcul différentiel	B2	Q2	30	30	-	6
MATH0246-2 <i>Algebraic structures</i> - Julien LEROY	B2	Q2	30	30	-	6
LANG0076-4 <i>English I (english language)</i> - Véronique DOPPAGNE, Caroline VAN LINTHOUT	B2	TA	45	-	-	4

	<b>Prerequisite :</b> LANG2967-2 - Anglais : introduction						
MATH0510-1	<i>Additional analysis</i> - JeanPierre SCHNEIDERS <b>Prerequisite :</b> MATH0080-1 - Calcul différentiel MATH2006-2 - Introduction à l'analyse numérique	B3	Q1	30	30	-	<b>6</b>
MATH0256-2	<i>Differential Geometry I</i> - Pierre MATHONET	B3	Q1	30	20	-	<b>5</b>
MATH2023-1	<i>Theory of formal languages</i> - Julien LEROY	B3	Q1	30	20	-	<b>5</b>
MATH7372-1	<i>Probabilities</i> - Céline ESSER <b>Prerequisite :</b> MATH0081-1 - Calcul intégral	B3	Q1	30	30	-	<b>6</b>
MATH2250-1	<i>Galois theory</i> - Emilie CHARLIER <b>Prerequisite :</b> MATH0246-2 - Structures algébriques	B3	Q2	30	20	-	<b>5</b>
MATH0474-1	<i>Statistics</i> - Gentiane HAESBROECK - [10h Mon. WS] <b>Prerequisite :</b> MATH0080-1 - Calcul différentiel MATH0081-1 - Calcul intégral <b>Corequisite :</b> MATH7372-1 - Probabilités	B3	Q2	25	15	[+]	<b>5</b>
MATH0511-1	<i>Introduction to harmonic analysis</i> - Françoise BASTIN <b>Prerequisite :</b> MATH0080-1 - Calcul différentiel MATH0081-1 - Calcul intégral	B3	Q2	30	30	-	<b>6</b>
DOCU0044-1	<i>Techniques of documentation and communication, integrated project</i> - Part 1: <i>Techniques of documentation and communication</i> - Fabienne PROSMANS - Part 2: <i>Integrated project</i> - Emilie CHARLIER <b>Prerequisite :</b> MATH0081-1 - Calcul intégral MATH0246-2 - Structures algébriques MATH0499-1 - Théorie des graphes MATH0248-1 - Géométrie II <b>Corequisite :</b> MATH7372-1 - Probabilités	B3	TA	30	-	-	<b>6</b>
LANG0077-6	<i>English 2 (english language)</i> - Véronique DOPPAGNE, Caroline VAN LINTHOUT <b>Prerequisite :</b> LANG0076-4 - Anglais 1	B3	TA	45	-	-	<b>4</b>

#### Optional courses (B2 : 12Cr, B3 : 12Cr)

In agreement with the Jury, choose courses for a total of 12 credits from the courses offered below: (B2 : 12Cr)

#### Mathematics applied to economics and management

ECON0323-1	<i>First principles of economics</i> - HenryJean GATHON	B2	Q1	26	-	-	<b>3</b>
GEST0832-4	<i>Financial Markets</i> - Georges HÜBNER	B2	Q2	40	15	-	<b>5</b>
GEST0029-1	<i>General Corporate Accounting (Night classes)</i> - Anne BILS	B2	Q2	30	15	-	<b>4</b>

#### Physics

MECA0201-1	<i>Analytical Mechanics I</i> - Pierre DAUBY	B2	Q1	30	30	-	<b>6</b>
PHYS1986-1	<i>General physics II, Part A</i> - Ngoc Duy NGUYEN	B2	Q2	35	25	-	<b>6</b>

#### Computer science

INFO2009-2	<i>Introduction to computer science</i> - Bernard BOIGELOT <b>Corequisite :</b>	B2	Q1	24	14	-	<b>4</b>
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	MATH0503-1 - Logique et approche mathématique de la programmation								
INFO0061-4	<i>Computers organization</i> - Bernard BOIGELOT	B2	Q2	15	15	-			<b>3</b>
	<b>Corequisite :</b> MATH0503-1 - Logique et approche mathématique de la programmation								
INFO0062-1	<i>Object-oriented programming</i> (english language) - Bernard BOIGELOT - [20h Proj.]	B2	Q2	25	20	[+]			<b>5</b>
	<b>Corequisite :</b> MATH0503-1 - Logique et approche mathématique de la programmation								

In agreement with the Jury, choose courses for a total of 12 credits from the courses offered below or from the elective courses not already chosen in block 2: (B3 : 12Cr)

#### Mathematics applied to economics and management

MQGE0001-6	<i>Operations Research</i> (english language) - Jérôme DE BOECK	B3	Q1	45	-	-			<b>6</b>
FINA0053-1	<i>Investments and Portfolio Management</i> (english language) - Georges HÜBNER	B3	Q2	30	-	-			<b>6</b>
	<b>Prerequisite :</b> GEST0832-4 - Marchés financiers								

#### Physics

MECA0523-1	<i>Analytical mechanics II</i> - Part A - Pierre DAUBY - Part B - Pierre DAUBY	B3	Q1	12 18	15 15	- -			<b>6</b>
MECA0523-2	<i>Analytical mechanics II, Part A</i> - Pierre DAUBY	B3	Q1	12	15	-			<b>3</b>
SPAT0065-1	<i>Introduction to Astronomy</i> - Grégor RAUW	B3	Q1	20	10	-			<b>3</b>
PHYS3030-2	<i>Electromagnetism</i> - Partim A - John MARTIN - Partim B - John MARTIN	B3	Q2	30 -	15 5	- -			<b>6</b>

#### Computer science

MATH0462-1	<i>Discrete optimization</i> (english language) - Quentin LOUVEAUX - [25h Proj.]	B3	Q2	30	20	[+]			<b>6</b>
INFO0054-1	<i>Functional programming</i> - Christophe DEBRUYNE - [20h Proj.]	B3	Q1	24	24	[+]			<b>6</b>
MATH1222-3	<i>Introduction to stochastic processes</i> - Céline ESSER, Pierre GEURTS - [10h Mon. WS]	B3	Q2	20	10	[+]			<b>4</b>
	<b>Prerequisite :</b> INFO2009-2 - Introduction à l'informatique INFO0062-1 - Object-oriented programming								
	<b>Corequisite :</b> MATH7372-1 - Probabilités MATH0474-1 - Statistique								

#### Mathematics

MATH0257-2	<i>Complex analysis</i> - JeanPierre SCHNEIDERS	B3	Q1	30	30	-			<b>6</b>
	<b>Prerequisite :</b> MATH0080-1 - Calcul différentiel MATH0081-1 - Calcul intégral								
MATH0212-2	<i>General topology</i> - Céline ESSER - [10h Mon. WS]	B3	Q2	30	20	[+]			<b>6</b>

[...] elective courses not already chosen in block 2

#### Optional free courses (B2 : 4Cr)

OCEA0053-1	<i>Study of Oceans and Coastal Management</i> - Sylvie GOBERT, Anne GOFFART	B2	Q2	15	25	-			<b>4</b>
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#### Learning support activities (B1 : 1Cr)

AREM0007-1	<i>Remedial "Computer Science"</i> - Bernard BOIGELOT - [10h REM]	B1	Q2	-	-	[+]	-
AREM0008-1	<i>Help to succeed in "Computer Science"</i> - Bernard BOIGELOT - [10h REM]	B1	Q1	-	-	[+]	-
IREM0001-1	<i>Adjusting working methods after the January session (reduced course loads)</i> - Amélie BASTEYNS, AnneFrance LANOTTE - [3h REM]	B1	Q2	-	-	[+]	-
IREM0002-1	<i>Getting organised in the specific context of reduced course loads</i> - Amélie AUQUIÈRE, AnneFrance LANOTTE - [2h REM]	B1	Q2	-	-	[+]	-
IREM0003-1	<i>Preparing for the Spring block and the May-June exams (reduced course loads)</i> - Amélie AUQUIÈRE, AnneFrance LANOTTE - [3h REM]	B1	Q2	-	-	[+]	-
IREM0005-1	<i>Planning the second session (reduced course loads)</i> - Amélie AUQUIÈRE, AnneFrance LANOTTE - [3h REM]	B1	Q2	-	-	[+]	-
IREM0006-1	<i>#BloqueBooster: supervised exam revision in the Spring holidays</i> - Stéphanie GENDARME - [5d REM]	B1	Q2	-	-	[+]	-
IREM0007-1	<i>Zen@etudes: How and why to manage stress? (reduced course loads)</i> - Sandrine WUIDART - [2h REM]	B1	Q2	-	-	[+]	-
IREM0008-1	<i>Keeping or increasing motivation in a context of a reduced course loads</i> - Céline MATHY, Sandrine WUIDART - [2h REM]	B1	Q2	-	-	[+]	-
IREM0009-1	<i>Hebdo MethodO support with additional help in connection to the context of repeating a year</i> - Sylviane HUBERT, AnneFrance LANOTTE - [5h REM]	B1	TA	-	-	[+]	-
IREM0010-1	<i>Getting the year off to a good start</i> - Sylviane HUBERT, AnneFrance LANOTTE - [2h REM]	B1	Q1	-	-	[+]	-
IREM0011-1	<i>Progressing effectively in the 1st term</i> - Amélie AUQUIÈRE, AnneFrance LANOTTE - [2h REM]	B1	Q1	-	-	[+]	-
IREM0012-1	<i>Preparing for the January exams: becoming familiar with the requirements and specificities of university exams</i> - Amélie AUQUIÈRE, AnneFrance LANOTTE - [3h REM]	B1	Q1	-	-	[+]	-
IREM0013-1	<i>Planning your January session: establishing a work programme</i> - Amélie AUQUIÈRE, AnneFrance LANOTTE - [3h REM]	B1	Q1	-	-	[+]	-
IREM0014-1	<i>Working effectively in the second term</i> - Amélie BASTEYNS, AnneFrance LANOTTE - [2h REM]	B2	Q2	-	-	[+]	-
IREM0015-1	<i>Adapting your organisation after the January session (fewer than 30 credits approved)</i> - Amélie BASTEYNS, AnneFrance LANOTTE - [3h REM]	B1	Q2	-	-	[+]	-
IREM0016-1	<i>Planning your May-June session (fewer than 30 credits approved)</i> - Amélie AUQUIÈRE, AnneFrance LANOTTE - [3h REM]	B1	Q2	-	-	[+]	-
IREM0017-1	<i>Planning your second session (fewer than 30 credits approved)</i> - Amélie AUQUIÈRE, AnneFrance LANOTTE - [3h REM]	B1	Q2	-	-	[+]	-
IREM0018-1	<i>Maintaining or rediscovering your motivation if you have to repeat a year (Q1)</i> - Céline MATHY, Sandrine WUIDART - [2h REM]	B1	Q1	-	-	[+]	-
IREM0019-1	<i>Zen@etudes: The hows and whys of stress management (fewer than 30 credits approved - Q1)</i> - Sandrine WUIDART - [2h REM]	B1	Q1	-	-	[+]	-
IREM0020-1	<i>Maintaining or rediscovering your motivation if you have to repeat a year (Q2)</i> - Céline MATHY, Sandrine WUIDART - [2h REM]	B1	Q2	-	-	[+]	-
IREM0021-1	<i>Zen@etudes: How and why to manage stress? (fewer than 30 credits approved - Q2)</i> - Sandrine WUIDART - [2h REM]	B1	Q2	-	-	[+]	-
LREM0005-1	<i>Taking stock of your French skills (Q2)</i> - Marielle MARÉCHAL - [1,5h REM]	B1	Q2	-	-	[+]	-
LREM0010-1	<i>Taking stock of your skills in French (Q1)</i> - Samia HAMMAMI, Frédéric SAENEN - [15h REM]	B1	Q1	-	-	[+]	-

SREM0009-2	<i>Learning support activities in Physics I, for Mathematics</i> - John MARTIN, Nicolas VANDEWALLE - [20h REM]	B1	TA	-	-	[+]	-
SREM0018-1	<i>Learning support activities in Mathematics I for Mathematicians</i> - Julien LEROY, Samuel NICOLAY, Michel RIGO - [20h REM]	B1	Q1	-	-	[+]	-
SREM0019-3	<i>Learning support activities in Mathematics II, for Mathematics</i> - Samuel NICOLAY - [26h REM]	B1	Q2	-	-	[+]	-
SREM0021-2	<i>Learning support activities in Physics II, for Mathematics</i> - Ngoc Duy NGUYEN - [20h REM]	B1	Q2	-	-	[+]	-