

Cycle view of the study programme

		B1	Or	Th	Pr	Au	Cr
Compulsory Courses (B1 : 45Cr, B2 : 25Cr)							
INFO0085-1	<i>Compilers</i> - Pierre GEURTS - [75h Proj.] Corequisite : INFO0016-1 - Introduction to the theory of computation	B1	Q2	25	-	[+]	5
INFO0063-1	<i>Object-oriented software engineering</i> (english language) - Bernard BOIGELOT - [30h Proj.]	B1	Q1	30	24	[+]	5
INFO0016-1	<i>Introduction to the theory of computation</i> (english language) - Pierre WOLPER	B1	Q1	30	30	-	5
MATH0462-1	<i>Discrete optimization</i> (english language) - Quentin LOUVEAUX - [25h Proj.]	B1	Q1	30	20	[+]	5
INFO0051-1	<i>Logic</i> (english language) - Pascal GRIBOMONT - [10h Proj.]	B1	Q1	30	25	[+]	5
ELEN0060-2	<i>Information and coding theory</i> (english language) - Louis WEHENKEL - [30h Proj.]	B1	Q2	30	15	[+]	5
GEST3162-1	<i>Principles of management</i> (english language) - Michael GHILISSEN, François PICHULT, Thierry PIRONET, Didier VAN CAILLIE	B1	Q1	25	25	-	5
PROJ0010-1	<i>Integrated software project, including fundamentals in project management</i> (english language) - JeanLouis BINOT, Bernard BOIGELOT, Benoît DONNET, Guy LEDUC, Laurent MATHY - [290h Proj.] Corequisite : INFO0063-1 - Object-oriented software engineering	B1	TA	10	-	[+]	10
ATFE0015-1	<i>Master thesis</i> (english language) - COLLÉGIALITÉ - [750h Proj.]	B2	TA	-	-	[+]	25

Optional courses (B1 : 15Cr, B2 : 35Cr)

[...] With the agreement of the jury, choose 5 credits in any course programme of the University

Students will choose one of the orientations below and will carry it on during the second bloc (B1 : 15Cr)

Computer systems and networks (B1 : 15Cr)

Compulsory Courses

INFO0031-1	<i>Computer network architectures and multimedia</i> (english language) - Guy LEDUC - [6h Labo., 25h Proj.]	B1	Q1	35	-	[+]	5
INFO0045-3	<i>Introduction to computer security</i> (english language) - Benoît DONNET - [8h Labo., 30h Proj.]	B1	Q2	30	10	[+]	5

Optional courses

Choose 5 credits in the following list : (B1 : 5Cr)

INFO0064-2	<i>Embedded systems</i> (english language) - Bernard BOIGELOT	B1	Q1	25	20	-	3
INFO2055-1	<i>Embedded systems project</i> (english language) - Bernard BOIGELOT - [60h Proj.] Corequisite : INFO0064-2 - Embedded systems	B1	Q2	-	-	[+]	2
INFO0941-1	<i>Network measurement and monitoring</i> (english language) - Benoît DONNET - [60h Proj.] Corequisite : INFO0031-1 - Computer network architectures and multimedia	B1	Q2	20	-	[+]	5
INFO2051-1	<i>Object-oriented programming on mobile devices</i> (english language) - Laurent MATHY - [90h Proj.]	B1	Q2	15	10	[+]	5
INFO0056-1	<i>Managing and securing computer networks</i> (english language) - Guy LEDUC - [12h Labo., 55h Proj.] Corequisite :	B1	Q2	30	-	[+]	5

INFO0045-3 - Introduction to computer security

ELEN0062-1	<i>Applied Inductive Learning</i> (english language) - Pierre GEURTS, Louis WEHENKEL - [40h Proj.]	B1	Q1	30	5	[+]	5
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Intelligent systems (B1 : 15Cr)

Compulsory Courses

ELEN0062-1	<i>Applied Inductive Learning</i> (english language) - Pierre GEURTS, Louis WEHENKEL - [40h Proj.]	B1	Q1	30	5	[+]	5
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Corequisite :

MATH0462-1 - Discrete optimization

Optional courses

Choose 10 credits in the following list : (B1 : 10Cr)

INFO0064-2	<i>Embedded systems</i> (english language) - Bernard BOIGELOT	B1	Q1	25	20	-	3
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INFO2055-1	<i>Embedded systems project</i> (english language) - Bernard BOIGELOT - [60h Proj.]	B1	Q2	-	-	[+]	2
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Corequisite :

INFO0064-2 - Embedded systems

ELEN0016-2	<i>Computer vision</i> (english language) - Marc VAN DROOGENBROECK - [50h Proj.]	B1	Q1	30	10	[+]	5
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INFO0948-2	<i>Introduction to intelligent robotics</i> (english language) - Renaud DETRY - [80h Proj.]	B1	Q2	30	4	[+]	5
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Corequisite :

ELEN0062-1 - Applied inductive learning

ELEN0016-2 - Computer vision

INFO0049-1	<i>Knowledge representation</i> (english language) - Pascal GRIBOMONT - [50h Proj.]	B1	Q2	30	25	[+]	5
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Corequisite :

INFO0051-1 - Logic

INFO2049-1	<i>Web and Text Analytics</i> (english language) - Ashwin ITTOO	B1	Q2	30	-	-	5
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Corequisite :

ELEN0062-1 - Applied inductive learning

INFO2046-2	<i>Computational geometry</i> (english language) - Eric BÉCHET - [95h Proj.]	B1	Q1	25	-	[+]	5
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MECA0031-2	<i>Kinematics and dynamics of mechanisms</i> (english language) - Olivier BRULS - [40h Proj.]	B1	Q2	30	20	[+]	5
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GBIO0002-1	<i>Genetics and Bioinformatics</i> (english language) - Franck DEQUIEDT, Kristel VAN STEEN	B1	Q1	30	30	-	5
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Single focus (B2 : 30Cr)

Research focus (B2 : 30Cr)

Students will carry on with their chosen option : (B2 : 10Cr)

Computer systems and networks (B2 : 10Cr)

Choose 10 credits in the following list : (B2 : 10Cr)

INFO0064-2	<i>Embedded systems</i> (english language) - Bernard BOIGELOT	B2	Q1	25	20	-	3
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INFO2055-1	<i>Embedded systems project</i> (english language) - Bernard BOIGELOT - [60h Proj.]	B2	Q2	-	-	[+]	2
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Corequisite :

INFO0064-2 - Embedded systems

INFO0941-1	<i>Network measurement and monitoring</i> (english language) - Benoît DONNET - [60h Proj.]	B2	Q2	20	-	[+]	5
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Corequisite :

INFO0031-1 - Computer network architectures and multimedia

INFO2051-1 *Object-oriented programming on mobile devices* (english language) - Laurent MATHY - [90h Proj.] B2 Q2 15 10 [+] 5

ELEN0062-1 *Applied Inductive Learning* (english language) - Pierre GEURTS, Louis WEHENKEL - [40h Proj.] B2 Q1 30 5 [+] 5

INFO0056-1 *Managing and securing computer networks* (english language) - Guy LEDUC - [12h Labo., 55h Proj.] B2 Q2 30 - [+] 5

Corequisite :

INFO0045-3 - Introduction to computer security

ELEN0002-2 *Introduction to audio and video techniques* (english language) - JeanJacques EMBRECHTS - [8h Labo.] B2 Q1 30 22 [+] 5

SYST0003-1 *Linear control systems* (english language) - Guillaume DRION - [6h Labo.] B2 Q1 30 30 [+] 5

Intelligent systems (B2 : 10Cr)

SYST0003-1 *Linear control systems* (english language) - Guillaume DRION - [6h Labo.] B2 Q1 30 30 [+] 5

Choose 5 credits in the following list : (B2 : 5Cr)

INFO0064-2 *Embedded systems* (english language) - Bernard BOIGELOT B2 Q1 25 20 - 3

INFO2055-1 *Embedded systems project* (english language) - Bernard BOIGELOT - [60h Proj.] B2 Q2 - - [+] 2

Corequisite :

INFO0064-2 - Embedded systems

ELEN0016-2 *Computer vision* (english language) - Marc VAN DROOGENBROECK - [50h Proj.] B2 Q1 30 10 [+] 5

INFO0948-2 *Introduction to intelligent robotics* (english language) - Renaud DETRY - [80h Proj.] B2 Q2 30 4 [+] 5

Corequisite :

ELEN0016-2 - Computer vision

ELEN0062-1 - Applied inductive learning

INFO0049-1 *Knowledge representation* (english language) - Pascal GRIBOMONT - [50h Proj.] B2 Q2 30 25 [+] 5

Prerequisite :

INFO0051-1 - Logic

INFO0939-1 *High performance scientific computing* (english language) - Christophe GEUZAINÉ - [20h Proj.] B2 Q1 30 15 [+] 5

INFO2046-2 *Computational geometry* (english language) - Eric BÉCHET - [95h Proj.] B2 Q1 25 - [+] 5

INFO2049-1 *Web and Text Analytics* (english language) - Ashwin ITTOO B2 Q2 30 - - 5

Corequisite :

ELEN0062-1 - Applied inductive learning

MECA0031-2 *Kinematics and dynamics of mechanisms* (english language) - Olivier BRULS - [40h Proj.] B2 Q2 30 20 [+] 5

GBIO0002-1 *Genetics and Bioinformatics* (english language) - Franck DEQUIEDT, Kristel VAN STEEN B2 Q1 30 30 - 5

[...] Choose 20 credits in your option, in the other option or in the list below :

Computer science

INFO0031-1 *Computer network architectures and multimedia* (english language) - Guy LEDUC - [6h Labo., 25h Proj.] B2 Q1 35 - [+] 5

INFO0045-3 *Introduction to computer security* (english language) - B2 Q2 30 10 [+] 5

	DONNET - [8h Labo., 30h Proj.]								
INFO0026-3	<i>Computer graphics</i> (english language) - Eric BÉCHET - [45h Proj.]	B2	Q2	24	24	[+]	5		
INFO0027-2	<i>Programming techniques</i> (english language) - Laurent MATHY - [70h Proj.]	B2	Q2	30	24	[+]	5		
INFO0050-1	<i>Constraint programming projects</i> (english language) - Pascal GRIBOMONT - [80h Proj.]	B2	TA	15	10	[+]	5		
	Corequisite : INFO0049-1 - Knowledge representation								
INFO0060-1	<i>Concurrent system verification and temporal logic</i> (english language) - Bernard BOIGELOT, Pascal GRIBOMONT, Pierre WOLPER - [20h Proj.]	B2	Q2	30	10	[+]	5		
	Prerequisite : INFO0016-1 - Introduction to the theory of computation INFO0051-1 - Logic								
Signal processing									
ELEN0019-2	<i>Audio signal processing : principles and experiments</i> (english language) - JeanJacques EMBRECHTS - [24h Labo., 30h Proj.]	B2	Q1	5	-	[+]	5		
ELEN0071-1	<i>Digital Signal Processing</i> (english language) - Jacques VERLY - [40h Proj.]	B2	Q2	45	15	[+]	5		
Biomedical engineering and bioinformatics									
GBIO0008-2	<i>Medical imaging</i> (english language) - Christophe PHILLIPS - [8h Labo., 1d FW]	B2	Q2	33	12	[+]	5		
GBIO0009-1	<i>Topics in bioinformatics</i> (english language) - Kristel VAN STEEN - [35h Proj.]	B2	Q1	25	15	[+]	5		
	Prerequisite : GBIO0002-1 - Genetics and bioinformatics								
GBIO0029-1	<i>Bioelectronics</i> (english language) - Michael KRAFT - [20h Labo., 20h Proj.]	B2	Q1	30	15	[+]	5		
GBIO0030-1	<i>Computational approaches to statistical generics</i> (english language) - Kristel VAN STEEN - [35h Proj.]	B2	Q2	25	15	[+]	5		
	Prerequisite : GBIO0002-1 - Genetics and bioinformatics								
GBIO0031-1	<i>Learning from genomic data</i> (english language) - Kristel VAN STEEN - [150h Proj.]	B2	Q2	-	-	[+]	5		
	Prerequisite : GBIO0002-1 - Genetics and bioinformatics								
Applied mathematics and modelling									
MATH0461-2	<i>Introduction to numerical optimization</i> (english language) - Quentin LOUVEAUX - [25h Proj.]	B2	Q1	30	20	[+]	5		
Electronics									
ELEN0078-2	<i>Acoustics and electroacoustics</i> (english language) - JeanJacques EMBRECHTS - [8h Labo.]	B2	Q2	30	22	[+]	5		
ELEN0037-1	<i>Microelectronics and IC design</i> (english language) - Michael KRAFT - [40h Proj.]	B2	Q2	30	20	[+]	5		
ELEN0038-1	<i>Microsystems</i> (english language) - Michael KRAFT - [20h Labo., 40h Proj.]	B2	Q2	30	5	[+]	5		
Internships and projects (15 ECTS maximum)									
ASTG9005-1	<i>Research Internship</i> (english language) - Benoît DONNET - [300h Proj.]	B2	TA	-	-	[+]	10		

ASTG0021-1	<i>Technical company internship</i> (english language) - Laurent MATHY - [300h Proj.]	B2	TA	-	-	[+]	10
	<i>Notice</i> : the two internships are mutually exclusive						
PROJ0011-1	<i>Personal student project</i> (english language) - Bernard BOIGELOT, COLLÉGIALITÉ - [150h Proj.]	B2	TA	-	-	[+]	5

Programme transitoire à destination des étudiants ayant réussi leur master 1 de "Master en ingénieur civil en informatique, à finalité spécialisée en gestion" en 2014-2015

Programme transitoire à destination des étudiants ayant réussi leur master 1 de "Master en ingénieur civil en informatique, à finalité approfondie" en 2014-2015

Optional courses (B1 : 30Cr)

Single focus (B1 : 30Cr)

Research focus (B1 : 30Cr)

Pursuit of the option : (B1 : 10Cr)

Computer systems and networks (B1 : 10Cr)

Choose 10 credits in the following list : (B1 : 10Cr)

INFO0064-2	<i>Embedded systems</i> (english language) - Bernard BOIGELOT	B1	Q1	25	20	-	3
INFO2055-1	<i>Embedded systems project</i> (english language) - Bernard BOIGELOT - [60h Proj.]	B1	Q2	-	-	[+]	2
INFO0941-1	<i>Network measurement and monitoring</i> (english language) - Benoît DONNET - [60h Proj.]	B1	Q2	20	-	[+]	5
INFO2051-1	<i>Object-oriented programming on mobile devices</i> (english language) - Laurent MATHY - [90h Proj.]	B1	Q2	15	10	[+]	5
ELEN0062-1	<i>Applied Inductive Learning</i> (english language) - Pierre GEURTS, Louis WEHENKEL - [40h Proj.]	B1	Q1	30	5	[+]	5
INFO0056-1	<i>Managing and securing computer networks</i> (english language) - Guy LEDUC - [12h Labo., 55h Proj.]	B1	Q2	30	-	[+]	5
ELEN0002-2	<i>Introduction to audio and video techniques</i> (english language) - JeanJacques EMBRECHTS - [8h Labo.]	B1	Q1	30	22	[+]	5
SYST0003-1	<i>Linear control systems</i> (english language) - Guillaume DRION - [6h Labo.]	B1	Q1	30	30	[+]	5

Intelligent systems (B1 : 10Cr)

SYST0003-1	<i>Linear control systems</i> (english language) - Guillaume DRION - [6h Labo.]	B1	Q1	30	30	[+]	5
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Choose 5 credits in the following list : (B1 : 5Cr)

INFO0064-2	<i>Embedded systems</i> (english language) - Bernard BOIGELOT	B1	Q1	25	20	-	3
INFO2055-1	<i>Embedded systems project</i> (english language) - Bernard BOIGELOT - [60h Proj.]	B1	Q2	-	-	[+]	2

ELEN0016-2	<i>Computer vision</i> (english language) - Marc VAN DROOGENBROECK - [50h Proj.]	B1	Q1	30	10	[+]	5
INFO0948-2	<i>Introduction to intelligent robotics</i> (english language) - Renaud DETRY - [80h Proj.]	B1	Q2	30	4	[+]	5
INFO0049-1	<i>Knowledge representation</i> (english language) - Pascal GRIBOMONT - [50h Proj.]	B1	Q2	30	25	[+]	5
INFO0939-1	<i>High performance scientific computing</i> (english language) - Christophe GEUZAINÉ - [20h Proj.]	B1	Q1	30	15	[+]	5
INFO2046-2	<i>Computational geometry</i> (english language) - Eric BÉCHET - [95h Proj.]	B1	Q1	25	-	[+]	5
INFO2049-1	<i>Web and Text Analytics</i> (english language) - Ashwin ITTOO	B1	Q2	30	-	-	5
MECA0031-2	<i>Kinematics and dynamics of mechanisms</i> (english language) - Olivier BRULS - [40h Proj.]	B1	Q2	30	20	[+]	5
GBIO0002-1	<i>Genetics and Bioinformatics</i> (english language) - Franck DEQUIEDT, Kristel VAN STEEN	B1	Q1	30	30	-	5

[...] Choose 20 credits in your option, in the other option or in the list below :

Computer science

INFO0031-1	<i>Computer network architectures and multimedia</i> (english language) - Guy LEDUC - [6h Labo., 25h Proj.]	B1	Q1	35	-	[+]	5
INFO0045-3	<i>Introduction to computer security</i> (english language) - Benoît DONNET - [8h Labo., 30h Proj.]	B1	Q2	30	10	[+]	5
INFO0026-3	<i>Computer graphics</i> (english language) - Eric BÉCHET - [45h Proj.]	B1	Q2	24	24	[+]	5
INFO0027-2	<i>Programming techniques</i> (english language) - Laurent MATHY - [70h Proj.]	B1	Q2	30	24	[+]	5
INFO0050-1	<i>Constraint programming projects</i> (english language) - Pascal GRIBOMONT - [80h Proj.]	B1	TA	15	10	[+]	5
INFO0060-1	<i>Concurrent system verification and temporal logic</i> (english language) - Bernard BOIGÉLOT, Pascal GRIBOMONT, Pierre WOLPER - [20h Proj.]	B1	Q2	30	10	[+]	5

Signal processing

ELEN0019-2	<i>Audio signal processing : principles and experiments</i> (english language) - JeanJacques EMBRECHTS - [24h Labo., 30h Proj.]	B1	Q1	5	-	[+]	5
ELEN0071-1	<i>Digital Signal Processing</i> (english language) - Jacques VERLY - [40h Proj.]	B1	Q2	45	15	[+]	5

Biomedical engineering and bioinformatics

GBIO0008-2	<i>Medical imaging</i> (english language) - Christophe PHILLIPS - [8h Labo., 1d FW]	B1	Q2	33	12	[+]	5
GBIO0009-1	<i>Topics in bioinformatics</i> (english language) - Kristel VAN STEEN - [35h Proj.]	B1	Q1	25	15	[+]	5
GBIO0029-1	<i>Bioelectronics</i> (english language) - Michael KRAFT - [20h Labo., 20h Proj.]	B1	Q1	30	15	[+]	5
GBIO0030-1	<i>Computational approaches to statistical generics</i> (english language) - Kristel VAN STEEN - [35h Proj.]	B1	Q2	25	15	[+]	5
GBIO0031-1	<i>Learning from genomic data</i> (english language) - Kristel VAN STEEN - [150h Proj.]	B1	Q2	-	-	[+]	5

Applied mathematics and modelling

MATH0461-2 *Introduction to numerical optimization* (english language) - Quentin LOUVEAUX - [25h Proj.] B1 Q1 30 20 [+] 5

Electronics

ELEN0078-2 *Acoustics and electroacoustics* (english language) - JeanJacques EMBRECHTS - [8h Labo.] B1 Q2 30 22 [+] 5

ELEN0037-1 *Microelectronics and IC design* (english language) - Michael KRAFT - [40h Proj.] B1 Q2 30 20 [+] 5

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

Internship and projects (15 ECTS maximum)

ASTG9005-1 *Research Internship* (english language) - Benoît DONNET - [300h Proj.] B1 TA - - [+] 10

ASTG0021-1 *Technical company internship* (english language) - Laurent MATHY - [300h Proj.] B1 TA - - [+] 10

Notice : the two internships are mutually exclusive

PROJ0011-1 *Personal student project* (english language) - Bernard BOIGELOT, COLLÉGIALITÉ - [150h Proj.] B1 TA - - [+] 5

Compulsory Courses (B1 : 30Cr)

ATFE0015-1 *Master thesis* (english language) - COLLÉGIALITÉ - [750h Proj.] B1 TA - - [+] 25

[...] With the agreement of the jury, choose 5 credits in any course programme of the University