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## First Year

### Compulsory Courses

INFO0085-1	<i>Compilers</i> - Pierre GEURTS - [75h Proj.]	Q2	25	-	[+]	5
INFO0051-1	<i>Logic</i> (english language) - Pascal GRIBOMONT - [10h Proj.]	Q1	30	25	[+]	6
INFO0016-1	<i>Introduction to the theory of computation</i> (english language) - Pierre WOLPER	Q1	30	30	-	5
MATH0462-1	<i>Discrete optimization</i> (english language) - Quentin LOUVEAUX - [25h Proj.]	Q1	30	20	[+]	5
MATH1222-2	<i>Introduction to stochastic processes, Markov chains</i> - Pierre GEURTS, Yvik SWAN	Q2	20	10	-	4
GEST3162-1	<i>Introduction to company management</i> (english language) - Michael GHILISSEN, François PICHAULT, Thierry PIRONET, Didier VAN CAILLIE	Q2	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.]	TA	10	-	[+]	10

### Optional courses

*Students will choose one of the options below and will carry it on during the second year.*

#### "Computer systems and networks" option

##### Compulsory courses

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

Students will choose 10 credits in the following list :

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

#### "Intelligent Systems" option

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

Students will choose 15 credits in the following list :

INFO0064-3	<i>Embedded systems</i> (english language) - Bernard BOIGELOT - [60h Proj.]	Q1	30	30	[+]	5
ELEN0016-2	<i>Digital image and video processing</i> (english language) - Marc VAN DROOGENBROECK - [20h Proj.]	Q1	30	10	[+]	5
INFO0948-2	<i>Introduction to intelligent robotics</i> (english language) - Renaud DETRY - [80h Proj.]	Q2	30	4	[+]	5
INFO0049-1	<i>Knowledge representation</i> (english language) - Pascal GRIBOMONT - [50h Proj.]	Q2	30	25	[+]	5
INFO2049-1	<i>Web and Text Analytics</i> (english language) - Ashwin ITTOO - [90h Proj.]	Q2	15	5	[+]	5
INFO2046-2	<i>Computational geometry</i> (english language) - Eric BÉCHET - [90h Proj.]	TA	30	-	[+]	5
INFO0939-1	<i>High performance scientific computing</i> (english language) -	Q1	30	15	[+]	5

EUZAINE - [20h Proj.]

### Compulsory Courses

INFO0085-1	<i>Compilers</i> - Pierre GEURTS - [75h Proj.]	Q2	25	-	[+]	5
INFO0051-1	<i>Logic</i> (english language) - Pascal GRIBOMONT - [10h Proj.]	Q1	30	25	[+]	5
INFO0063-1	<i>Object-oriented software engineering</i> (english language) - Bernard BOIGELOT - [30h Proj.]	Q1	30	24	[+]	5
INFO0016-1	<i>Introduction to the theory of computation</i> (english language) - Pierre WOLPER	Q1	30	30	-	5
MATH0500-1	<i>Introduction to numerical algorithmic</i> - Quentin LOUVEAUX - [6h Labo., 45h Proj.]	Q1	24	14	[+]	5
MATH0462-1	<i>Discrete optimization</i> (english language) - Quentin LOUVEAUX - [25h Proj.]	Q1	30	20	[+]	5
GEST3162-1	<i>Introduction to company management</i> (english language) - Michael GHILISSEN, François PICHault, Thierry PIRONET, Didier VAN CAILLIE	Q2	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.]	TA	10	-	[+]	10

### Optional courses

Students will choose one of the orientations below and will carry it on during the second year.

#### "Computer systems and networks" option

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

Students will choose 5 credits in the following list :

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

#### "Intelligent Systems" option

ELEN0062-1	<i>Applied Inductive Learning</i> (english language) - Pierre GEURTS, Louis WEHENKEL - [40h Proj.]	Q1	30	5	[+]	5
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Students will choose 10 credits in the following list :

INFO0064-3	<i>Embedded systems</i> (english language) - Bernard BOIGELOT - [60h Proj.]	Q1	30	30	[+]	5
ELEN0016-2	<i>Digital image and video processing</i> (english language) - Marc VAN DROOGENBROECK - [20h Proj.]	Q1	30	10	[+]	5
INFO0948-2	<i>Introduction to intelligent robotics</i> (english language) - Renaud DETRY - [80h Proj.]	Q2	30	4	[+]	5
INFO0049-1	<i>Knowledge representation</i> (english language) - Pascal GRIBOMONT - [50h Proj.]	Q2	30	25	[+]	5
INFO2046-2	<i>Computational geometry</i> (english language) - Eric BÉCHET - [90h Proj.]	TA	30	-	[+]	5
INFO0939-1	<i>High performance scientific computing</i> (english language) - Christophe GEUZAINÉ - [20h Proj.]	Q1	30	15	[+]	5

## Second Year

### Compulsory Courses

ATFE0002-1 *Master thesis - COLLÉGIALITÉ - [750h Proj.]* TA - - [+] **25**

### Optional courses

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

### Compulsory Courses

MATH0462-1	<i>Discrete optimization (english language) - Quentin LOUVEAUX - [25h Proj.]</i>	Q1	30	20	[+]	<b>5</b>
INFO0064-3	<i>Embedded systems (english language) - Bernard BOIGELOT - [60h Proj.]</i>	Q1	30	30	[+]	<b>5</b>
ELEN0062-1	<i>Applied Inductive Learning (english language) - Pierre GEURTS, Louis WEHENKEL - [40h Proj.]</i>	Q1	30	5	[+]	<b>5</b>

### Optional courses

Students choose 15 credits in the following list :

GBIO0009-1	<i>Bioinformatics (english language) - Kristel VAN STEEN</i>	Q1	30	30	-	<b>5</b>
INFO0050-1	<i>Constraint programming (english language) - Pascal GRIBOMONT - [80h Proj.]</i>	Q1	15	10	[+]	<b>5</b>
INFO0060-1	<i>Concurrent system verification and temporal logic (english language) - Bernard BOIGELOT, Pascal GRIBOMONT, Pierre WOLPER - [20h Proj.]</i>	Q2	30	10	[+]	<b>5</b>
MATH0461-2	<i>Introduction to numerical optimization (english language) - Quentin LOUVEAUX - [25h Proj.]</i>	Q2	30	20	[+]	<b>5</b>
INFO2046-2	<i>Computational geometry (english language) - Eric BÉCHET - [90h Proj.]</i>	TA	30	-	[+]	<b>5</b>
ELEN0019-2	<i>Audio signal processing : principles and experiments (english language) - JeanJacques EMBRECHTS - [24h Labo., 30h Proj.]</i>	Q1	5	-	[+]	<b>5</b>
ELEN0002-2	<i>Introduction to audio and video techniques (english language) - JeanJacques EMBRECHTS - [6h Labo.]</i>	Q1	30	20	[+]	<b>5</b>
INFO0948-2	<i>Introduction to intelligent robotics (english language) - Renaud DETRY - [80h Proj.]</i>	Q2	30	4	[+]	<b>5</b>
INFO2051-1	<i>Object-oriented programming on mobile devices (english language) - Laurent MATHY - [90h Proj.]</i>	Q2	15	10	[+]	<b>5</b>
INFO0026-3	<i>Computer graphics (english language) - Eric BÉCHET - [45h Proj.]</i>	Q2	30	30	[+]	<b>5</b>
INFO2049-1	<i>Web and Text Analytics (english language) - Ashwin ITTOO - [90h Proj.]</i>	Q2	15	5	[+]	<b>5</b>
ASTG0021-1	<i>Entreprise Internship (english language) - Guy LEDUC - [300h Proj.]</i>	TA	-	-	[+]	<b>10</b>
ASTG9005-1	<i>Research Internship (english language) - Guy LEDUC - [300h Proj.]</i>	TA	-	-	[+]	<b>10</b>
PROJ0011-1	<i>Personal student project (english language) - COLLÉGIALITÉ - [150h Proj.]</i>	TA	-	-	[+]	<b>5</b>