

Block view of the study programme

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Block 1

Course to be intended in order to obtain de Master's degree in computer science and engineering.

Compulsory courses

INFO0016-1	<i>Introduction to the theory of computation</i> (english language) - Quentin LOUVEAUX	Q1	26	26	-	5
ELEN0062-1	<i>Introduction to machine learning</i> (english language) - Pierre GEURTS, Louis WEHENKEL - [40h Proj.]	Q1	30	5	[+]	5
INFO0940-1	<i>Operating systems</i> (english language) - Laurent MATHY - [30h Proj.]	Q2	30	6	[+]	5
PROJ0010-1	<i>Software project engineering and management</i> (english language) - JeanLouis BINOT, Benoît DONNET, Guy LEDUC, Laurent MATHY - [280h Proj.]	TA	20	-	[+]	10
PROJ0019-1	<i>End of studies project</i> (english language) - Laurent MATHY	TA	-	-	-	10
INFO0010-4	<i>Introduction to computer networking</i> (english language) - Guy LEDUC - [12h Labo., 40h Proj.]	Q1	35	2	[+]	5

The three courses below can be taken during the bachelor's degree or master's degree in business engineering, or added to the third year of the master's programme.

MATH0002-4	<i>Mathematical analysis 1</i> - Eric DELHEZ	Q1	22	22	-	4
MECA0003-2	<i>Rational Mechanics</i> - Eric DELHEZ	Q1	20	30	-	4
SYST0002-2	<i>Introduction to signals and systems</i> - Guillaume DRION - [15h Proj.]	Q1	26	26	[+]	5

Optional courses

Choose one focus from the following :

Finalité spécialisée "Computer Systems Security"

INFO0031-1	<i>Network Engineering</i> (english language) - Benoît DONNET, Guy LEDUC - [12h Labo., 30h Proj.]	Q2	30	-	[+]	5
INFO0045-3	<i>Introduction to computer security</i> (english language) - Benoît DONNET - [10h Labo., 30h Proj.]	Q1	30	6	[+]	5

Choose courses totalling 20 credits out of the following :

INFO0064-2	<i>Embedded systems</i> (english language) - Bernard BOIGELOT	Q1	25	20	-	3
INFO2055-1	<i>Embedded systems project</i> (english language) - Bernard BOIGELOT - [60h Proj.]	Q2	-	-	[+]	2
INFO2051-1	<i>Object-oriented programming on mobile devices</i> (english language) - Laurent MATHY - [90h Proj.]	Q1	15	10	[+]	5
INFO0056-1	<i>Securing Networks</i> (english language) - Guy LEDUC - [12h Labo., 30h Proj.] (Even years)	Q2	30	-	[+]	5
ELEN0002-2	<i>Introduction to audio and video techniques</i> (english language) - JeanJacques EMBRECHTS - [8h Labo.]	Q1	30	22	[+]	5
INFO0939-1	<i>High performance scientific computing</i> (english language) - Christophe GEUZAINÉ - [20h Proj.]	Q1	30	15	[+]	5
INFO8002-1	<i>Large-scale data systems</i> (english language) - Gilles LOUPPE - [45h Proj.]	Q1	25	10	[+]	5
INFO8012-1	<i>Digital Forensics</i> (english language) - Benoît DONNET, Laurent MATHY - [12h Labo., 30h Proj.] (Even years)	Q2	30	-	[+]	5
INFO8011-1	<i>Network infrastructures</i> (english language) - Benoît DONNET, Guy LEDUC, Laurent MATHY - [12h Labo., 30h Proj.] (Odd years)	Q1	30	-	[+]	5

INFO8013-1 *Advanced Computer Security* (english language) - Benoît DONNET,
Laurent MATHY - [20h Labo., 30h Proj.] (Odd years) Q2 20 - [+] 5

Professional focus: "Intelligent systems"

INFO8010-1 *Deep learning* (english language) - Gilles LOUPPE - [55h Proj.] Q2 25 10 [+] 5

SYST0003-1 *Linear control systems* (english language)
- *Theory* - Guillaume DRION Q1 26 6 - 5
- *Control system design in time domain and frequency domain* -
Guillaume DRION - [6h Labo.] - 20 [+]

Choose courses totalling 20 credits out of the following :

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

INFO0051-1 *Logic* (english language) - Pascal GRIBOMONT - [10h Proj.] Q1 25 25 [+] 5

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

INFO0049-1 *Knowledge representation* (english language) - Pascal GRIBOMONT - [50h Proj.] Q2 28 4 [+] 5

INFO2049-1 *Web and Text Analytics* (english language) - Ashwin ITTOO Q1 30 - - 5

GBIO0002-1 *Genetics and bioinformatics* (english language) - Franck DEQUIEDT,
Kristel VAN STEEN - [15h Proj.] Q1 30 15 [+] 5

DROI1357-1 *European law, (big) data and artificial intelligence applications
seminar* (english language) - Pieter VAN CLEYNENBREUGEL Q1 24 - - 5

INFO8003-1 *Optimal decision making for complex problems* (english language) -
Damien ERNST - [45h Proj.] Q2 25 10 [+] 5

INFO8004-1 *Advanced Machine learning* (english language) - Pierre GEURTS,
Gilles LOUPPE, Louis WEHENKEL - [45h Proj.] Q2 25 - [+] 5

INFO8005-1 *Semantic Data* (english language) - - Suppl : JeanLouis BINOT - [45h
Proj.] Q2 25 10 [+] 5

INFO0050-1 *Constraint programming projects* (english language) -
Pascal GRIBOMONT - [80h Proj.] TA 15 10 [+] 5

INFO8006-1 *Introduction to artificial intelligence* (english language) -
Gilles LOUPPE - [45h Proj.] Q1 25 20 [+] 5