

One-year master program (60 ECTS)

Compulsory courses

INFO0004-1	<i>Programming Languages: From Text to Execution</i> (english) - Justus PIATER	30	30	-	6
INFO0031-1	<i>Computer Network Architectures and Multimedia</i> - Guy LEDUC	30	30	-	6
INFO0051-1	<i>Artificial Intelligence Logics</i> - Pascal GRIBOMONT	30	30	-	6
INFO0063-1	<i>Object-Oriented Software Engineering</i> - Bernard BOIGELOT	30	30	-	6
INFO0016-1	<i>Introduction to the Theory of Computation</i> (english) - Pierre WOLPER	30	30	-	6
ATFE0003-1	<i>Final work</i> - COLLÉGIALITÉ	-	-	-	18

Optional courses

[...] With the agreement of the Jury, students choose 12 credits from the list of courses from the 1st year of Master in Computing Sciences in 2 years (120 credits), except from the training.

Programme for students who have passed the preparatory year for the Masters in Computer Science

Compulsory courses

INFO0004-1	<i>Programming Languages: From Text to Execution</i> (english) - Justus PIATER	30	30	-	6
INFO0031-1	<i>Computer Network Architectures and Multimedia</i> - Guy LEDUC	30	30	-	6
INFO0051-1	<i>Artificial Intelligence Logics</i> - Pascal GRIBOMONT	30	30	-	6
INFO0063-1	<i>Object-Oriented Software Engineering</i> - Bernard BOIGELOT	30	30	-	6
INFO0016-1	<i>Introduction to the Theory of Computation</i> (english) - Pierre WOLPER	30	30	-	6
MATH0006-2	<i>Introduction to numerical analysis</i> - Quentin LOUVEAUX	25	15	-	4
INFO0039-2	<i>Object-Oriented Programming Project</i> - Pierre WOLPER	-	90	-	8
ATFE0003-1	<i>Final work</i> - COLLÉGIALITÉ	-	-	-	18

Two-Year Master Program (120 ECTS)

First Year

Compulsory courses

INFO0004-1	<i>Programming Languages: From Text to Execution</i> (english) - Justus PIATER	30	30	-	6
INFO0031-1	<i>Computer Network Architectures and Multimedia</i> - Guy LEDUC	30	30	-	6
INFO0051-1	<i>Artificial Intelligence Logics</i> - Pascal GRIBOMONT	30	30	-	6
INFO0063-1	<i>Object-Oriented Software Engineering</i> - Bernard BOIGELOT	30	30	-	6
INFO0016-1	<i>Introduction to the Theory of Computation</i> (english) - Pierre WOLPER	30	30	-	6

Optional courses

Students choose 30 credits from the list of option courses below :

INFO0065-1	<i>Seminar on Intrusion Systems</i> - Marc DACIER	10	50	-	6
INFO0049-1	<i>Knowledge Representation</i> - Pascal GRIBOMONT	30	30	-	6
INFO0056-1	<i>Managing and Securing Computer Networks</i> - Guy LEDUC	30	30	-	6
INFO0013-1	<i>Computer vision</i> (english) - Justus PIATER	30	30	-	6
ELEN0016-1	<i>Digital Image Processing</i> - Marc VAN DROOGENBROECK	30	30	-	6
INFO0026-3	<i>Computer Graphics</i> - Eric BÉCHET	30	30	-	6
INFO0045-2	<i>Cryptography and Computer Security</i> - N... - Suppl : Tri-An BANH, Renaud DUMONT	30	30	-	6
ASTG0021-1	<i>Internship</i> - COLLÉGIALITÉ	-	-	-	12

Second year

Compulsory courses

ATFE0002-1 *Final Work (including an introduction to methodology and research)* - COLLÉGIALITÉ - - - **24**

Optional courses

[...] Choose 6 credits in the University's programme of courses; this choice must have the approval of the cycle's Jury president

Choose one of the following focus :

Research Focus

Compulsory courses

MATH0461-1	<i>Introduction to numerical optimization (english)</i> - Quentin LOUVEAUX	30	30	-	6
INFO0064-1	<i>Embedded Systems</i> - Bernard BOIGELOT	30	30	-	6
ELEN0062-1	<i>Applied Inductive Learning</i> - Pierre GEURTS, Louis WEHENKEL	30	30	-	6

Optional courses

Choose courses totalling 12 ECTS from the following :

ELEN0070-1	<i>Signal Processing</i> - Jacques VERLY	30	30	-	6
GBIO0009-1	<i>Bio-informatics</i> - Kristel VAN STEEN	30	30	-	6
INFO0013-1	<i>Computer vision (english)</i> - Justus PIATER	30	30	-	6
INFO2036-1	<i>Analysis and design of algorithms</i> - N...	30	30	-	6
INFO0050-1	<i>Constrained programming</i> - Pascal GRIBOMONT	30	30	-	6
INFO0060-1	<i>Concurrent System Verification and Temporal Logic</i> - Bernard BOIGELOT, Pascal GRIBOMONT, Pierre WOLPER	30	30	-	6
INFO0939-1	<i>High performance scientific computing (english)</i> - Christophe GEUZAINÉ	30	30	-	6
MATH0017-4	<i>Mathematical Logic and Set Theory</i> - Georges HANSOUL	30	30	-	6
MATH0024-1	<i>Further Study of Digital Analysis (Equations with Partial Derivatives)</i> - Jean-André ESSERS	30	30	-	6
MATH0234-3	<i>Boolean Topology and Boolean Algebra</i> - Georges HANSOUL	30	30	-	6
MATH0245-3	<i>Discrete structures (Compléments)</i> - Michel RIGO	30	30	-	6
MATH0462-1	<i>Discrete optimization</i> - Quentin LOUVEAUX	30	30	-	6

Professional Focus

Compulsory courses

GEST3000-2	<i>First steps in an enterprise</i> - COLLÉGIALITÉ	24	-	-	2
GEST3001-1	<i>People management and organisation</i> - Jocelyne ROBERT	24	24	-	4
GEST3002-1	<i>Human Resources</i> - Jocelyne ROBERT	24	-	-	2
GEST3003-1	<i>Competitive strategy in the marketplace</i> - Michael GHILISSEN	16	16	-	3
GEST3004-1	<i>Marketing (operations and management)</i> - Michael GHILISSEN	16	16	-	3
GEST3005-2	<i>Accountancy and Finance</i> - Jacques BERWART	24	24	-	4
GEST3006-1	<i>Operations and supply chain management I</i> - Yasemin ARDA	16	16	-	3
GSTG3001-1	<i>Business plan</i> - COLLÉGIALITÉ - [30h Internship]	-	-	[+]	3
GSTG3002-1	<i>Company diagnostic</i> - COLLÉGIALITÉ - [30h Internship]	-	-	[+]	3

Optional courses

Choose one of the following courses :

GEST3010-1	<i>Operations and supply chain management II</i> - Sabine LIMBOURG	16	16	-	3
GEST3011-2	<i>ICT in the service of the company</i> - Maud BAY	16	16	-	3
GEST3012-1	<i>Financial and actuarial modelling</i> - Louis ESCH	16	16	-	3

Adjusted programme for students who passed the preparatory year for the Masters in Computer Science

First Year

Compulsory courses

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INFO0051-1	<i>Artificial Intelligence Logics</i> - Pascal GRIBOMONT	30	30	-	6
INFO0063-1	<i>Object-Oriented Software Engineering</i> - Bernard BOIGELOT	30	30	-	6
INFO0016-1	<i>Introduction to the Theory of Computation</i> (english) - Pierre WOLPER	30	30	-	6
MATH0006-2	<i>Introduction to numerical analysis</i> - Quentin LOUVEAUX	25	15	-	4
INFO0039-2	<i>Object-Oriented Programming Project</i> - Pierre WOLPER	-	90	-	8

Optional courses

[...] Students choose 18 credits from the optional courses list of the first year in the two year Computer Sciences Masters.

Second year

The programme is identical to that of the 2nd year in the Masters in Computer Sciences in two years.