

First Year

Compulsory courses

CHIM0603-1	<i>Chemistry</i> - Edwin DE PAUW, José MARIEN	60	30	-	9
ECON0323-1	<i>First principles of economics</i> - Bernard JURION	30	-	-	3
INFO2008-1	<i>Computer science</i> - Bernard BOIGELOT, Pierre-Arnoul DE MARNEFFE	50	40	-	9
LANG0038-1	<i>English</i> - Christine FILOT, ISLV	60	-	-	5
MATH0001-2	<i>Graphic Communication</i> - Eric BÉCHET	20	20	-	4
MATH0002-3	<i>Mathematical Analysis I</i> - Eric DELHEZ	50	40	-	9
MATH0003-1	<i>Geometry</i> - Pierre LECOMTE	25	15	-	4
MATH0013-1	<i>Algebra</i> - Eric DELHEZ	30	20	-	5
PHYS2020-1	<i>Physics 1: Mechanics</i> - Hervé CAPS	20	20	-	4
PHYS2021-1	<i>Physics 2: Electricity and electromagnetism</i> - Hervé CAPS	30	30	-	5
PROJ0001-1	<i>Introduction to numerical methods and project</i> - Olivier BRULS, Quentin LOUVEAUX, Frédéric NGUYEN	10	30	-	3

Engineering jobs and careers : compulsory seminars
A visit to a business

Notice : Compulsory business visits envisaged for the 2nd semester in 1st BAC and the 1st semester of BAC 2 are organised so that students can better become acquainted with the engineering professions and to help them choose their options and Masters. They are not graded and thus have no ECTS value.

Second year (2008-2009 transitory program)

Compulsory courses

CHIM0286-1	<i>Rudiments of thermodynamics</i> - Edwin DE PAUW, José MARIEN	30	30	-	5
GENV0001-1	<i>Environmental Engineering</i> - Alain DASSARGUES, Benjamin J. DEWALS, Albert GERMAIN, Michel PIROTON	30	-	-	2,5
LANG0039-2	<i>English 2</i> - Christine FILOT, ISLV	30	-	-	2,5
MATH0006-1	<i>Introduction to numerical analysis</i> - Quentin LOUVEAUX	30	30	-	5
MATH0007-4	<i>Mathematical analysis II</i> - Françoise BASTIN	30	30	-	5
MECA0001-1	<i>Solid mechanics (english)</i> - Serge CESCOTTO	30	30	-	5
MECA0003-1	<i>Rational Mechanics</i> - Eric DELHEZ	30	30	-	5
MECA0011-1	<i>Fluid Mechanics: Basics</i> - Michel PIROTON	30	30	-	5
SYST0002-1	<i>Linear systems</i> - Rodolphe SEPULCHRE	30	30	-	5

A visit to a business

Optional courses

Choose two of the following options :

Notice : One will be your minor option. The other, linked to your 3rd year further study option, will be your major option. Minor / major combinations must be endorsed by the Jury.

Option Chemistry and Material Sciences

CHIM0080-1	<i>Energy carriers and sustainable development</i> - Albert GERMAIN	30	-	-	3
CHIM0604-1	<i>Chemistry and organic materials</i> - Christophe DETREMBLEUR	30	60	-	7

Option Mechanics

MECA0002-1	<i>Applied Thermodynamics and Introduction to Heat Engines</i> - N... - Suppl : Olivier LÉONARD	30	30	-	5
MECA0012-5	<i>Mechanics of materials (english)</i> - Serge CESCOTTO	30	30	-	5

Option Physics

PHYS0057-1	<i>Wave optics and wave mechanics</i> - Laurent DREESEN	30	30	-	5
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MECA0445-1 *Transfers of heat and matter* - Michel HOGGE 30 30 - 5

Option Electricity and Electronics

ELEC0053-2 *Electric circuits* - Patricia ROUSSEAU 30 30 - 5
ELEN0075-1 *Analog Electronics* - Benoît VANDERHEYDEN 30 30 - 5

Option Computing

INFO0902-1 *Data Structures and Algorithms* - Justus PIATER - Suppl : Bernard BOIGELOT 30 30 - 5
INFO0062-1 *Object-Oriented Programming* - Bernard BOIGELOT 30 30 - 5

Option Building

GCIV0184-2 *Building Materials* - Luc COURARD 30 30 - 5
MECA0012-5 *Mechanics of materials (english)* - Serge CESCOTTO 30 30 - 5

Option Geological Engineering

GEOL0001-1 *Geology and Geology for Engineers* - Alain DASSARGUES - [2d FW] 35 25 [+] 5
GEOL0021-7 *Geophysical exploration* - Lucien HALLEUX, Frédéric NGUYEN - [5d FW] 30 30 [+] 5

Option Biomedical Engineering

BIOC0002-1 *Biochemistry* - Paulette CHARLIER 30 30 - 5
GBIO0001-1 *Introduction to Biomedical Engineering* - Kristel VAN STEEN 30 30 - 5

Option Architecture

ARCH0067-5 *Urban Design History* - Jean-Claude CORNESSE 45 - - 5
GCIV2030-3 *Structural Design of Buildings* - Thibaut BROGNEAUX, Jean-Claude CORNESSE 30 15 - 5

Notice : Students who follow options which have one or more courses in common complete their programme by choosing one or more courses from BAC programme for Engineering Sciences - Civil Engineering or language courses organised by the Ulg in other education pathways. The resulting programme must equal 60 credits and be approved by the Jury.

Second year (2009-2010 perspectives)

Compulsory courses

CHIM0286-1 *Rudiments of thermodynamics* - Edwin DE PAUW, José MARIEN 30 30 - 5
GENV0001-1 *Environmental Engineering* - Alain DASSARGUES, Benjamin J. DEWALS, Albert GERMAIN, Michel PIROTON 30 - - 2
LANG0039-2 *English 2* - Christine FILOT, ISLV 30 - - 2
MATH0006-2 *Introduction to numerical analysis* - Quentin LOUVEAUX 25 15 - 3
MATH0007-4 *Mathematical analysis II* - Françoise BASTIN 30 30 - 5
MECA0001-1 *Solid mechanics (english)* - Serge CESCOTTO 30 30 - 5
MECA0003-1 *Rational Mechanics* - Eric DELHEZ 30 30 - 5
MECA0011-1 *Fluid Mechanics: Basics* - Michel PIROTON 30 30 - 5
SYST0002-1 *Linear systems* - Rodolphe SEPULCHRE 30 30 - 5
PHYS2022-1 *Physics 3: Waves and quanta* - N... 20 20 - 3
A visit to a business

Optional courses

Choose two of the following options :

Notice : One will be your minor option. The other, linked to your 3rd year further study option, will be your major option. Minor / major combinations must be endorsed by the Jury.

Physics

PHYS0057-1	<i>Wave optics and wave mechanics</i> - Laurent DREESEN	30	30	-	5
MECA0445-1	<i>Transfers of heat and matter</i> - Michel HOGGE	30	30	-	5

Chemistry and Material Sciences

CHIM0080-1	<i>Energy carriers and sustainable development</i> - Albert GERMAIN	30	-	-	3
CHIM0604-1	<i>Chemistry and organic materials</i> - Christophe DETREMBLEUR	30	60	-	7

Option Mechanics

MECA0002-1	<i>Applied Thermodynamics and Introduction to Heat Engines</i> - N... - Suppl : Olivier LÉONARD	30	30	-	5
MECA0012-5	<i>Mechanics of materials</i> (english) - Serge CESCOTTO	30	30	-	5

Option Electricity and Electronics

ELEC0053-2	<i>Electric circuits</i> - Patricia ROUSSEAU	30	30	-	5
ELEN0075-1	<i>Analog Electronics</i> - Benoît VANDERHEYDEN	30	30	-	5

Option Computing

INFO0902-1	<i>Data Structures and Algorithms</i> - Justus PIATER - Suppl : Bernard BOIGELOT	30	30	-	5
INFO0062-1	<i>Object-Oriented Programming</i> - Bernard BOIGELOT	30	30	-	5

Option Building

GCIV0184-2	<i>Building Materials</i> - Luc COURARD	30	30	-	5
MECA0012-5	<i>Mechanics of materials</i> (english) - Serge CESCOTTO	30	30	-	5

Option Geological Engineering

GEOL0001-1	<i>Geology and Geology for Engineers</i> - Alain DASSARGUES - [2d FW]	35	25	[+]	5
GEOL0021-7	<i>Geophysical exploration</i> - Lucien HALLEUX, Frédéric NGUYEN - [5d FW]	30	30	[+]	5

Option Biomedical Engineering

BIOC0002-1	<i>Biochemistry</i> - Paulette CHARLIER	30	30	-	5
GBIO0001-1	<i>Introduction to Biomedical Engineering</i> - Kristel VAN STEEN	30	30	-	5

Option Architecture

ARCH0067-5	<i>Urban Design History</i> - Jean-Claude CORNESSE	45	-	-	5
GCIV2030-3	<i>Structural Design of Buildings</i> - Thibaut BROGNEAUX, Jean-Claude CORNESSE	30	15	-	5

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Third year

Compulsory courses

GEST0105-1	<i>Elements of Management: Social Aspects</i> - Annie CORNET	20	-	-	2
MATH0008-2	<i>Probability and Statistics</i> - Tri-An BANH	15	15	-	3

Optional courses

The follow-up to the two options begun in the second year :

Option Chemistry and Material Sciences

CHIM0022-2	<i>Introduction to Chemical Engineering</i> - Michel CRINE	30	30	-	5
CHIM0009-1	<i>Applied chemical thermodynamics</i> - Georges HEYEN	30	30	-	5
CHIM0012-2	<i>Chemical Kinetics</i> - Jean-Paul PIRARD	30	30	-	5
CHIM0605-1	<i>Chemistry and inorganic materials</i> - Rudi CLOOTS	30	30	-	5

Option Mechanics

MECA0018-1	<i>Industrial Forming Processes</i> - Jean-François DEBONGNIE	30	30	-	5
MECA0445-2	<i>Transfers of heat and matter</i> - Michel HOGGE	30	15	-	4
MECA0155-1	<i>Dynamics of Mechanical Systems</i> - Jean-Claude GOLINVAL	30	30	-	5
MECA0443-1	<i>CAO / Finite Element Methods</i> - Eric BÉCHET, Jean-Philippe PONTHOT	45	30	-	6

Option Physics

MECA0025-1	<i>Fluid Mechanics</i> - Jean-André ESSERS	30	30	-	5
PHYS0211-3	<i>Quantum Mechanics</i> - Joseph CUGNON	30	30	-	5
ELEN0076-1	<i>Electromagnetism</i> - Benoît VANDERHEYDEN	30	30	-	5
MECA0012-5	<i>Mechanics of materials (english)</i> - Serge CESCOTTO	30	30	-	5

Option Electricity and Electronics

ELEN0040-1	<i>Digital Electronics</i> - Jacques DESTINÉ	30	30	-	5
ELEC0052-1	<i>Analysis and Design of Electrical Measuring Systems</i> - Philippe VANDERBEMDEN	30	30	-	5
ELEC0431-1	<i>Electromagnetic energy transformation</i> - Christophe GEUZAINÉ	30	30	-	5
ELEN0008-1	<i>Principles of analog and digital telecommunications systems</i> - Marc VAN DROOGENBROECK	30	30	-	5

Option Computing

ELEN0040-1	<i>Digital Electronics</i> - Jacques DESTINÉ	30	30	-	5
INFO0012-1	<i>Computation Structures</i> - Pierre WOLPER	30	30	-	5
INFO0010-1	<i>Introduction to Computer Networks</i> - Guy LEDUC	30	30	-	5
INFO0064-1	<i>Embedded Systems</i> - Bernard BOIGELOT	30	30	-	5

Option Building

MECA0442-1	<i>Mechanics of materials II</i> - Serge CESCOTTO	15	15	-	2
GCIV0604-1	<i>Hydraulics</i> - Michel PIROTON	15	15	-	3
GCIV0607-1	<i>Structural mechanics</i> - Jean-Marc FRANSSSEN	30	30	-	5
GCIV0603-1	<i>Geotechnics</i> - Robert CHARLIER	30	30	-	5
GCIV0097-1	<i>Steel and concrete constructions I</i> - Jean-Claude DOTREPPE, Jean-Pierre JASPART	30	30	-	5

Option Geological Engineering

GEOL0020-5	<i>Mineral resources</i> - Eric PIRARD	20	10	-	3
GEOL0013-5	<i>Hydrogeology</i> - Alain DASSARGUES - [1d FW]	30	30	[+]	5
GEOL0253-2	<i>Spatial analysis of geo-environmental data</i> - Eric PIRARD	20	20	-	3
GEOL0274-1	<i>Introduction to mineralogy, igneous and metamorphic petrology</i> - André-Mathieu FRANSOLETT, Jacqueline VANDER AUWERA	30	30	-	4
GEOL0275-1	<i>Introduction to paleontology</i> - Emmanuelle JAVAUX	10	10	-	2
GEOL0249-2	<i>Personal project work in documentary research</i> - Annick ANCEAU, Eric PIRARD	5	25	-	3

Option Architecture

ARCH0070-1	<i>Workshops in architecture</i> - Serge CESCOTTO	-	90	-	7
ARCH0071-2	<i>Architecture and Urban Design History II</i> - Jean-Claude CORNESSE	45	-	-	4
ARCH0009-3	<i>Building techniques II</i> - Jean-Marie HAUGLUSTAINÉ - [2,5d FW]	30	60	[+]	7
ARCH0069-1	<i>Project management</i> - N... - Suppl : Dimitri SCHMITZ - [2d FW]	15	15	[+]	2

Option Biomedical Engineering

GBIO0002-1	<i>Genetics and molecular biology</i> - Michel GEORGES, Joseph MARTIAL	30	30	-	5
GBIO0003-1	<i>Molecular and cellular physiology</i> - Pierre ROBE	30	30	-	5
GBIO0004-1	<i>Physiology of the systems</i> - Philippe KOLH	30	30	-	5
GBIO0005-1	<i>Introduction to neurosciences</i> - Shibeshih BELACHEW, Pierre MAQUET	30	30	-	5

Choose one advanced study option out of the following :

Option Chemistry and Material Sciences (Advanced Study)

	<u>Prerequisite</u>	"Option Chimie et sciences des matériaux"			
CHIM0606-1	<i>Analytical Chemistry</i> - Bernard GILBERT	30	60	-	6
MECA0014-3	<i>Introduction to Hydraulic machines and Compressors</i> - Olivier LÉONARD	15	15	-	3
PHYS0904-2	<i>Physics of materials (partim)</i> - Jacqueline LECOMTE#BECKERS, Jean-Marie LIÉGEOIS	20	10	-	3
DROI0724-1	<i>law and engineering</i> - Pascale LECOCQ	30	-	-	3

Option Mechanics (Advanced Study)

	<u>Prerequisite</u>	"Option Mécanique"			
MECA0444-1	<i>Mechanical design</i> - Jean-François DEBONGNIE	30	30	-	5
PHYS0904-1	<i>Physics of materials</i> - Jacqueline LECOMTE#BECKERS, Jean-Marie LIÉGEOIS	30	30	-	5
ELEN0061-2	<i>Introduction to Stochastic Processes</i> - Louis WEHENKEL	15	15	-	2
DROI0724-1	<i>law and engineering</i> - Pascale LECOCQ	30	-	-	3

Option Physics (Advanced Study)

	<u>Prerequisite</u>	"Option Physique"			
MECA0446-1	<i>Continuum Mechanics</i> - Jean-Philippe PONTHOT	30	30	-	5
ELEN0061-2	<i>Introduction to Stochastic Processes</i> - Louis WEHENKEL	15	15	-	2
DROI0724-1	<i>law and engineering</i> - Pascale LECOCQ	30	-	-	3
PHYS0055-1	<i>Introduction to Condensed Matter Physics</i> - Jean-Pierre GASPARD	30	30	-	5

Option Electricity and Electronics (Advanced Study)

	<u>Prerequisite</u>	"Option Electricité et électronique"			
ELEN0070-1	<i>Signal Processing</i> - Jacques VERLY	30	30	-	5
ELEN0076-1	<i>Electromagnetism</i> - Benoît VANDERHEYDEN	30	30	-	5
ELEN0061-2	<i>Introduction to Stochastic Processes</i> - Louis WEHENKEL	15	15	-	2
DROI0724-1	<i>law and engineering</i> - Pascale LECOCQ	30	-	-	3

Option Computing (Advanced Study)

	<u>Prerequisite</u>	"Option Informatique"			
INFO0054-1	<i>Functional programming</i> - Pascal GRIBOMONT	30	30	-	5
ELEN0008-1	<i>Principles of analog and digital telecommunications systems</i> - Marc VAN DROOGENBROECK	30	30	-	5
ELEN0061-2	<i>Introduction to Stochastic Processes</i> - Louis WEHENKEL	15	15	-	2
DROI0724-1	<i>law and engineering</i> - Pascale LECOCQ	30	-	-	3

Option Building (Advanced Study)

	<u>Prerequisite</u>	"Option Constructions"			
GCIV0099-1	<i>Steel and concrete constructions II</i> - Jean-Claude DOTREPPE, Jean-Pierre JASPART	30	30	-	5
GCIV0608-1	<i>Integrated building projet</i> - Serge CESCOTTO, COLLÉGIALITÉ, Jean-Marc FRANSSSEN	-	60	-	4
DROI0724-1	<i>law and engineering</i> - Pascale LECOCQ	30	-	-	3
GCIV0044-1	<i>Land Transport Infrastructure Gauging</i> - Albert BOLLE	20	10	-	3

Option Advanced Studies in Geological Engineering

	<u>Prerequisite</u>	"Option Génie géologique"			
GCIV0603-1	<i>Geotechnics</i> - Robert CHARLIER	30	30	-	5
META0431-2	<i>Mineral processing (processes)</i> - Stoyan GAYDARDZHIEV - [1d FW]	30	30	[+]	5
BIOL0212-1	<i>Introduction to environmental microbiology</i> - Monique CARNOL	30	-	-	2
DROI0724-1	<i>law and engineering</i> - Pascale LECOCQ	30	-	-	3

Option Advanced Biomedical Science

	<u>Prerequisite</u>	"Option Génie biomédical"				
ELEN0061-2	<i>Introduction to Stochastic Processes</i> - Louis WEHENKEL		15	15	-	2
DROI0724-1	<i>law and engineering</i> - Pascale LECOCQ		30	-	-	3
[...]	Two supplementary courses to be chosen among courses of the Bachelor's degree listed as optional courses for the first year of the Master's degree in Biomedical civil Engineering. These choose must meet with the approval of the President of the jury.					

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