

Two-Year Master Program (120 ECTS)

First Year

Compulsory courses

GCIV0201-2	<i>Choice and maximisation of construction materials</i> - Luc COURARD - [0,5d FW, 6h Labo., 8h Proj.]	Q1	34	20	[+]	5
GCIV2032-2	<i>Design and means of erection of structures and bridges</i> - Vincent DE VILLE DE GOYET, JeanMarc FRANSSSEN - [0,5d FW, 10h Proj.]	Q2	30	10	[+]	3
GCIV0642-1	<i>Bridge project</i> - Vincent DE VILLE DE GOYET - [40h Proj.]	-	-	40	[+]	3
GCIV0165-2	<i>Wood Construction</i> - JeanMarc FRANSSSEN - [15h Proj.]	Q2	15	15	[+]	2
GCIV0643-1	<i>Concrete and brickwork constructions</i> - Hervé DEGÉE, Boyan MIHAYLOV - [1d FW, 10h Proj.]	Q1	30	30	[+]	5
GCIV0644-1	<i>Steel and composite constructions</i> - JeanFrançois DEMONCEAU, JeanPierre JASPART - [1d FW, 30h Proj.]	Q2	40	20	[+]	6
ARCH0081-1	<i>Building construction techniques</i> - Shady ATTIA - [5d FW, 30h Proj.]	Q2	20	20	[+]	3
GCIV2034-1	<i>Free surface flow</i> - Michel PIROTON - [1d FW, 2h Labo., 10h Proj.]		30	28	[+]	5
GCIV2035-1	<i>Fluvial hydrodynamics</i> - Benjamin DEWALS - [30h Proj.]	Q2	30	30	[+]	5
GCIV2036-2	<i>Soil and rock mechanics</i> - Frédéric COLLIN - [1d FW, 5h Proj.]	Q1	25	25	[+]	4
GCIV2037-1	<i>Structural Mechanics II</i> - Vincent DENOËL, Philippe RIGO - [15h Proj.]	Q1	35	35	[+]	6
GCIV0185-7	<i>Numerical methods in Civil and Geological Engineering, Linear methods</i> - Laurent DUCHENE, Michel PIROTON - [30h Proj.]	Q1	20	30	[+]	4
GCIV2171-1	<i>Numerical methods in Civil and Geological Engineering - Non-linear methods</i> - Frédéric COLLIN, Vincent DE VILLE DE GOYET - [5h Proj.]	Q2	25	25	[+]	4
GCIV0009-1	<i>Hydraulic constructions I</i> - Sébastien ERPICUM, Philippe RIGO - [0,5d FW, 2h Labo., 16h Proj.]	Q2	34	24	[+]	5

Notice : Students who, in their BAC studies, have already taken the course ARCH0003-4 "Method of construction of buildings I, elements" (architecture option) have to replace the course ARCH0081-1 "Building construction techniques" of the study programme of the master 1 of Constructions by the following :

GCIV0032-8 Topography - 20Th, 10Pr - 3 credits

Second year

Compulsory courses

GCIV2065-1	<i>Hydraulic engineering II</i> - Benjamin DEWALS, Philippe RIGO - [1d FW, 20h Proj.]	Q1	30	30	[+]	5
GCIV2066-1	<i>Fundamentals of transportation : transport planning</i> (english language) - Mario COOLS	Q1	15	15	-	2
GCIV0133-9	<i>Maintenance, restoration and protection of buildings</i> - Luc COURARD - [0,5d FW]	Q1	32	8	[+]	3
ATFE0010-1	<i>Final Work (including an introduction to methodology and research)</i> - COLLÉGIALITÉ - [500h Proj.]	-	-	-	[+]	20

Final year trip: visits to works of art (optional).

Choose one focus from the following :

Research Focus

Compulsory courses

PRCO0001-1	<i>Construction project</i> - Frédéric COLLIN, Laurent DUCHENE, Philippe RIGO - [0,5h FW, 100h Proj.]	Q1	-	90	[+]	9
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GCIV0645-1	<i>Environmental impacts of constructions</i> - Frédéric COLLIN, Benjamin DEWALS, JeanPierre JASPART - [10h Proj.]	Q1	40	10	[+]	4
GCIV2063-1	<i>Planning buildings, co-ordination and safety on building sites</i> - Sebastian KREUSCH, JeanMarie RIGO		15	15	-	2
ASTG0016-1	<i>Placement</i> - Luc COURARD - [20d FW]		-	-	[+]	3

Optional courses

Choose one module from :

Civil Engineering Works

GCIV2048-1	<i>Waterways</i> - Philippe RIGO - [1d FW, 10h Proj.]	Q1	24	12	[+]	3
GCIV2049-1	<i>Geotechnical structures</i> - Frédéric COLLIN, JeanPol RADU - [20d Proj.]	Q1	20	40	[+]	5
GCIV2050-2	<i>Civil engineering works under accidental and exceptional actions</i> - Hervé DEGÉE, JeanFrançois DEMONCEAU, Vincent DENOËL, JeanMarc FRANSSSEN, Michel PIROTON	Q1	30	20	-	4

Building engineering

GCIV2042-2	<i>Buildings under accidental and exceptional actions</i> - Hervé DEGÉE, JeanFrançois DEMONCEAU, Vincent DENOËL, JeanMarc FRANSSSEN, Michel PIROTON	Q1	40	20	-	5
GCIV0646-1	<i>Structural design of buildings</i> - JeanFrançois DEMONCEAU, JeanMarc FRANSSSEN, Boyan MIHAYLOV - [1d FW]	Q1	40	-	[+]	3
ARCH0079-1	<i>Durable building construction techniques : envelope</i> - Sigrid REITER - [40h Proj.]	Q1	15	30	[+]	4

Professional focus in management

Notice : The specialisation in management will be taught for the last time in 2014-2015.

Compulsory courses

GEST3001-1	<i>People management and organisation</i> - Jocelyne ROBERT	Q1	24	24	-	4
GEST3002-1	<i>Human Resources</i> - Jocelyne ROBERT	Q1	24	-	-	2
GEST3003-1	<i>Competitive strategy in the marketplace</i> (english language) - Michael GHILISSEN	Q1	16	16	-	3
GEST3004-1	<i>Marketing (operations and management)</i> (english language) - Michael GHILISSEN	Q1	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> (english language) - Yasemin ARDA	Q1	16	16	-	3
GSTG3001-1	<i>Business plan</i> - COLLÉGIALITÉ		-	30	-	4
GSTG3002-1	<i>Functional analysis of a company</i> - COLLÉGIALITÉ - [30h Internship]		-	-	[+]	4

Optional courses

Choose one of the following courses :

GEST3010-1	<i>Operations and supply chain management II</i> - Sabine LIMBOURG	Q1	16	16	-	3
GEST3011-2	<i>ICT for Business</i> - Alain DUBOIS	Q1	16	16	-	3
GEST3012-1	<i>Financial and actuarial modelling</i> - Louis ESCH	Q1	16	16	-	3

Adjusted programme for student of the Bachelors in Civil Engineering who have not taken the "Structure" option

Students studying for the Bachelors in Civil Engineering who have not chosen the appropriate option :

- * must take all the so-called "prerequisite" courses hereafter, if they were not taken during the 1st cycle. These courses must be taken during the 1st year of the masters and some 1st-year compulsory courses must be rolled over to the 2nd year.

* must subsequently reduce the number of courses they choose to take in the 2nd year of the masters. If all the "prerequisite" courses must be taken, it will be impossible for them to choose which courses they take.

* cannot choose the professional "management" focus.

The program adapted by these students has to receive the preliminary agreement of the Jury.

Compulsory prerequisites

GCIV0097-1	<i>Steel and concrete constructions</i> - JeanPierre JASPART, Boyan MIHAYLOV - [40h Q1 Proj.]	Q1	35	35	[+]	6
GCIV0603-2	<i>Geotechnics and infrastructure</i> - Robert CHARLIER, JeanPol RADU - [0,5d FW, 2h Labo.]	Q2	26	26	[+]	5
GCIV0604-3	<i>Hydraulics</i> - Michel PIROTON - [1d FW, 15h Proj.]	Q1	20	25	[+]	4
GCIV0184-5	<i>Building Materials</i> - Luc COURARD - [0,5d FW, 12h Labo., 12h Proj.]	Q2	36	4	[+]	5
MECA0012-6	<i>Solid mechanics</i> - Laurent DUCHENE - [15h Proj.]	Q2	30	30	[+]	5
GCIV0607-2	<i>Structural mechanics</i> - JeanMarc FRANSEN	Q2	35	35	-	6