

Two-Year Master Program (120 ECTS)

First Year

Compulsory courses

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

GCIV 0032-8 *Topography* - 3 credits

Second year

Compulsory courses

GCIV2065-1	<i>Hydraulic engineering II</i> - Benjamin DEWALS, Philippe RIGO - [3d FW]	30	30	[+]	5
GCIV2066-1	<i>Fundamentals of transportation : transport planning</i> (english language) - Mario COOLS	15	15	-	2
GCIV0133-9	<i>Maintenance, restoration and protection of buildings</i> - Luc COURARD - [1d FW]	30	10	[+]	3
ATFE0010-1	<i>Final Work (including an introduction to methodology and research)</i> - COLLÉGIALITÉ	-	-	-	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> - COLLÉGIALITÉ	-	70	-	7
GCIV0645-1	<i>Environmental impacts of constructions</i> - Frédéric COLLIN, Benjamin DEWALS, JeanPierre JASPART	25	25	-	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> - COLLÉGIALITÉ	-	-	-	5

Optional courses

Choose one option from the following :

Civil Engineering Works

GCIV2048-1	<i>Waterways</i> - Philippe RIGO	20	20	-	3
GCIV2049-1	<i>Geotechnical structures</i> - Frédéric COLLIN, JeanPol RADU - [1d FW]	30	30	[+]	5
GCIV2050-2	<i>Civil engineering works under accidental and exceptional actions</i> - Hervé DEGÉE, JeanFrançois DEMONCEAU, Vincent DENOËL, JeanMarc FRANSSSEN, Michel PIROTON	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	40	20	-	5
GCIV0646-1	<i>Structural design of buildings</i> - JeanFrançois DEMONCEAU, JeanMarc FRANSSSEN, Boyan MIHAYLOV	40	-	-	3
ARCH0079-1	<i>Building construction techniques : envelope</i> - Sigrid REITER	15	30	-	4

Professional focus in management

Compulsory courses

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> (english language) - Michael GHILISSEN	16	16	-	3
GEST3004-1	<i>Marketing (operations and management)</i> (english language) - 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> (english language) - Yasemin ARDA	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	16	16	-	3
GEST3011-2	<i>ICT for Business</i> - Alain DUBOIS	16	16	-	3
GEST3012-1	<i>Financial and actuarial modelling</i> - Louis ESCH	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	35	35	-	6
GCIV0603-2	<i>Geotechnics and infrastructure</i> - Robert CHARLIER, JeanPol RADU - [1d FW]	30	30	[+]	5
GCIV0604-2	<i>Hydraulics</i> - Michel PIROTON	20	20	-	4
GCIV0184-5	<i>Building Materials</i> - Luc COURARD - [1d FW]	30	30	[+]	5
MECA0012-5	<i>Solid mechanics</i> - Laurent DUCHENE	30	30	-	5
GCIV0607-2	<i>Structural mechanics</i> - JeanMarc FRANSSSEN	35	35	-	6