Cycle view of the study programme

		Bl	Or	Th	Pr	Au	Cr

Depending on your educational background or depending on the focus, it is possible that the prerequisites / corequisites for the 1st year of the programme are presented in the block 2. You are therefore invited to read through the list of courses in block 2 even if you are registering for the first time in this master.

Within the framework of their Master in Civil Engineering, all students must follow or validate the 90 credits of joint training (including placement and final year dissertation) and 30 credits from one of the two professional focuses, i.e. 'civil engineering' or 'urban and environmental engineering'.
Ideally, students studying for the master¿s degree will have acquired the competences and knowledge corresponding to the 40 credits of technical courses specific to the field of construction, taught within the framework of the Bachelor in Civil Engineering.

Focus courses (B2 : 30Cr)

Notice : Finalité accessible uniquement sur dossier (contact : Président du jury de cycle). Seuls seront sélectionnés les étudiants ayant acquis un nombre suffisant de crédits dans le domaine "Constructions".

UEEN0007-1	*District Energy Systems* (english language) - N... - [8h Proj., 1d FW]	B2	Q1	16	8	[+]	**3**
UEEN0008-1	*Urban water systems* (english language) - Benjamin DEWALS - [12h Proj.]	B2	Q1	18	18	[+]	**3**
UEEN0002-1	*Land rehabilitation in urban environments* (english language) - Serge BROUYÈRE, Frédéric COLLIN - [10h Labo., 20h Proj., 2d FW]	B2	Q1	20	10	[+]	**5**
UEEN0003-1	*Urban resilience* (english language) - Jacques TELLER - [60h Proj., 1d FW]	B2	Q1	36	16	[+]	**5**
UEEN0004-1	*Urban planning and transportation* (english language) - Mario COOLS, Jacques TELLER - [1d FW]	B2	Q1	26	26	[+]	**5**
UEEN0005-1	*Participatory Design at an Urban Scale* (english language) - Catherine ELSEN - [20h Proj., 1d FW]	B2	Q1	20	10	[+]	**3**
UEEN0006-1	*UEE Integrated Project* (english language) - Luc COURARD - [100h Proj., 1d FW]	B2	Q1	-	90	[+]	**6**

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.

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

Cours obligatoires du tronc commun (B1 : 60Cr, B2 : 30Cr)

GCIV0201-2	*Concretes and new Materials Technologies* - Luc COURARD - [0,5d FW, 6h Labo., 8h Proj.]	B1	Q1	32	20	[+]	**5**
GCIV0643-1	*Prestressed concrete structures* - Hervé DEGÉE, Boyan MIHAYLOV - [1d FW, 20h Proj.] **Corequisite :** GCIV0607-2 - Analyse des structures I GCIV2173-1 - Béton armé	B1	Q1	26	26	[+]	**5**
GCIV0644-1	*Metallic and Steel-Concrete composite Structures* - [1d FW, 20h Proj.] **Corequisite :** GCIV2172-1 - Calcul d'éléments métalliques GCIV0185-7 - Méthodes numériques linéaires en génie civil et géologique GCIV0607-2 - Analyse des structures I	B1	Q2	35	17	[+]	**5**
GCIV0646-1	*Buildings conception and execution* - *Basic concepts* - Boyan MIHAYLOV - [1d FW] - *Advanced concepts + Project* - [40h Proj.]	B1	Q2 40 16	 - -	 [+] [+]		**5**
GCIV2034-1	*Free surface flow* - Sébastien ERPICUM, Michel PIROTTON - [1d FW, 2h Labo., 10h Proj.] **Corequisite :**	B1	Q1	27	25	[+]	**5**

GCIV0604-3 - Hydraulique

GCIV2035-1	*Fluvial hydrodynamics* - Pierre ARCHAMBEAU, Benjamin G. DEWALS - [30h Proj.] **Corequisite :** GCIV2034-1 - Ecoulements à surface libre GCIV0185-7 - Méthodes numériques linéaires en génie civil et géologique	B1	Q2	26	26	[+]	**5**
GCIV2036-2	*Soils and Rocks mechanics* - Frédéric COLLIN - [1d FW, 5h Proj.]	B1	Q1	26	26	[+]	**5**
GCIV2037-1	*Structures analysis II* - Vincent DENOËL - [15h Proj.] **Corequisite :** GCIV0607-2 - Analyse des structures I	B1	Q2	28	24	[+]	**5**
GCIV0185-7	*Linear numerical methods in Civil and Geological Engineering* - Laurent DUCHENE, Michel PIROTTON - [30h Proj.]	B1	Q1	22	30	[+]	**5**
GCIV0009-1	*Design and execution of hydraulic structures* - Sébastien ERPICUM - [1d FW, 16h Proj.] **Corequisite :** GCIV2034-1 - Ecoulements à surface libre	B1	Q2	30	22	[+]	**5**
GCIV0607-2	*Structures Analysis I* - Vincent DENOËL	B1	Q1	28	24	-	**5**
GCIV2049-1	*Geotechnical Structures Conception and Execution* - Frédéric COLLIN - [20d Proj.] **Corequisite :** GCIV0603-2 - Géotechnique et infrastructures GCIV2036-2 - Mécanique des sols et des roches GCIV2037-1 - Analyse des structures II	B1	Q2	17	35	[+]	**5**
ASTG0016-1	*Internship* - Bertrand FRANÇOIS - [20d FW]	B2	Q2	-	-	[+]	**5**
ATFE0010-1	*Master Thesis (including an introduction to methodology and research)* - Bertrand FRANÇOIS - [750h Proj.]	B2	Q2	-	-	[+]	**25**

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

Compulsory prerequisites

Additional ECTS Master in civil engineering (120 ECTS)

Optional courses (B0 : 60Cr)

GCIV2172-1	*Metallic Elements Calculation* - [1d FW, 10h Proj.]	B1	Q2	26	26	[+]	**5**

Each student¿s programme will be determined by the jury depending on their prior training. If an applicant does not meet certain prerequisites, his or her programme may include up to 60 additional course credits essentially taken from the list below : (B0 : 60Cr)

MATH0006-3	*Introduction to numerical analysis* (english language) - Quentin LOUVEAUX	B0	Q1	20	20	-	**4**
MECA0001-2	*Mechanics of materials* - Laurent DUCHENE - [2h Labo., 12h Proj.]	B0	Q1	27	25	[+]	**5**
MECA0011-2	*Fluid Mechanics : Basics* - Michel PIROTTON - [25h Proj.]	B0	Q2	20	30	[+]	**4**
LANG0039-2	*English 2, English for Engineering* (english language) - Clara BRERETON, Véronique DOPPAGNE, Pascale DRIANNE, Stéphane GHIJSEN, Philippe JEUKENNE, Martin POLSON, David VANMANSHOVEN - [20h Proj.]	B0	TA	-	30	[+]	**3**
MATH0067-1	*Introduction to statistics and probability* - Vincent DENOËL - [15h Proj.]	B0	Q1	20	25	[+]	**3**
GCIV0184-5	*Building Materials* - Luc COURARD, Anne HABRAKEN - [0,5d FW, 12h Labo., 12h Proj.]	B0	Q2	36	16	[+]	**5**

MECA0012-6	*Solid mechanics* - Laurent DUCHENE - [15h Proj.]	B0	Q2	26	26	[+]	**5**
GCIV0604-3	*Hydraulic* - Pierre ARCHAMBEAU, Michel PIROTTON - [1d FW, 15h Proj.]	B0	Q1	22	30	[+]	**5**
GCIV0603-2	*Geotechnics and infrastructure* - Bertrand FRANÇOIS - [1d FW, 2h Labo.]	B0	Q2	26	26	[+]	**5**
GCIV0608-1	*Introduction to Structures engineering* - Vincent DENOËL - [4d FW, 40h Proj.]	B0	Q1	12	12	[+]	**5**
GEOL0001-1	*Geology and Engineering geology* - [2d FW]	B0	Q2	30	22	[+]	**5**
GCIV2172-1	*Metallic Elements Calculation* - [1d FW, 10h Proj.]	B0	Q2	26	26	[+]	**5**
GCIV2173-1	*Reinforced concrete* (english language) - Boyan MIHAYLOV - [1d FW, 10h Proj.]	B0	Q2	26	26	[+]	**5**
[...]	Choose maximum 1 credit to complete the curriculum						
GCIV2173-1	*Reinforced concrete* (english language) - Boyan MIHAYLOV - [1d FW, 10h Proj.]	B1	Q2	26	26	[+]	**5**
GCIV0603-2	*Geotechnics and infrastructure* - Bertrand FRANÇOIS - [1d FW, 2h Labo.]	B1	Q2	26	26	[+]	**5**
GCIV0604-3	*Hydraulic* - Pierre ARCHAMBEAU, Michel PIROTTON - [1d FW, 15h Proj.]	B1	Q1	22	30	[+]	**5**
GCIV0184-5	*Building Materials* - Luc COURARD, Anne HABRAKEN - [0,5d FW, 12h Labo., 12h Proj.]	B1	Q2	36	16	[+]	**5**
MECA0012-6	*Solid mechanics* - Laurent DUCHENE - [15h Proj.]	B1	Q2	26	26	[+]	**5**