

Two-Year Master Program (120 ECTS)

Access conditions to the Master (http://www.ulg.ac.be/cms/c_46354/master-en-ingenieur-civil-des-constructions)

First Year

Compulsory courses

| | | | | | |
|------------|--|----|----|-----|----|
| GCIV0201-2 | <i>Choice and maximisation of construction materials</i> - Luc COURARD - [1d FW] | 30 | 30 | [+] | 5 |
| GCIV2032-1 | <i>Design and means of erection of structures and bridges</i> - Vincent DE VILLE DE GOYET, Jean-Marc FRANSSSEN | 30 | 30 | - | 5 |
| GCIV2033-2 | <i>Steel, concrete, timber and composite steel-concrete construction</i> - Jean-François DEMONCEAU, Jean-Marc FRANSSSEN, Jean-Pierre JASPART, N... - Suppl : François KAISER - [2d FW] | 60 | 60 | [+] | 10 |
| GEOL0001-1 | <i>Geology and Geology for Engineers</i> - Alain DASSARGUES - [2d FW] | 35 | 25 | [+] | 5 |
| GCIV2034-1 | <i>Free surface flow</i> - Michel PIROTON | 30 | 30 | - | 5 |
| GCIV2035-1 | <i>Environmental 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 |
| GCIV0185-2 | <i>Numerical methods in Civil and Geological Engineering - I. Linear methods</i> - <i>Linear methods</i> - Vincent DENOËL, Michel PIROTON | 30 | 30 | - | 10 |
| | <i>Linear and non-linear methods</i> - Frédéric COLLIN, Hervé DEGÉE, Vincent DE VILLE DE GOYET | 30 | 30 | - | |
| GCIV0009-1 | <i>Hydraulic constructions</i> - Sébastien ERPICUM, Philippe RIGO | 30 | 30 | - | 5 |

Notice : Students who, in their Bachelor studies, have already taken the compulsory course GEOL0001-1 *Geology and Engineering Geology* from this Master's programme are forced to replace it by a course chosen from :

- * GEOL0023-4 *Engineering geology (integrated project)*- 10h+30h+2 j.T.t - 5 ECTS - NGUYEN F. (this course is not available in 2011-2012)
- * ARCH00003-4 *Method of construction of buildings I*- 30h+30h+ 2,5jT.t - 5 ECTS - N. Suppl. : Mauro BACCARINI

Second year

Compulsory courses

| | | | | | |
|------------|--|----|----|-----|----|
| GCIV2065-1 | <i>Hydraulic engineering</i> - Benjamin DEWALS, Sébastien ERPICUM, Philippe RIGO - [3d FW] | 60 | 60 | [+] | 10 |
| ATFE0010-1 | <i>Final Work (including an introduction to methodology and research)</i> - COLLÉGIALITÉ - Final year trip: visits to works of art (optional). | - | - | - | 20 |

Choose one focus from the following :

Research Focus

Compulsory courses

| | | | | | |
|------------|--|---|----|---|---|
| PRCO0001-1 | <i>Integrated civil engineering project</i> - COLLÉGIALITÉ, Vincent DENOËL | - | 80 | - | 8 |
| 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 | - | 4 |
| GCIV0133-9 | <i>Maintenance, restoration and protection of buildings</i> - Luc COURARD, | 30 | 10 | [+] | 3 |

| | | | | | |
|------------|---|----|----|-----|---|
| | LUMIER - [1d FW] | | | | |
| GCIV2049-1 | <i>Geotechnical structures</i> - Robert CHARLIER, Frédéric COLLIN - [1d FW] | 30 | 30 | [+] | 6 |
| GCIV2050-1 | <i>Accidental and exceptional actions</i> - Vincent DENOËL, Jean-Marc FRANSSSEN, Jean-Pierre JASPART, Michel PIROTON, André PLUMIER | 20 | 20 | - | 4 |

Urban Project and Transport

A new programme is being prepared for 2012-2013. Note: Erasmus IN students are asked to consult the programme for the Masters in Civil Architecture, including the option "Urban and Transport Project".

Architecture and Building Engineering

| | | | | | |
|------------|--|----|----|-----|---|
| ELEN0077-3 | <i>Introduction to acoustics and lighting</i> - Jean-Jacques EMBRECHTS | 30 | 15 | - | 3 |
| ARCH2015-2 | <i>Air conditioning</i> - Philippe ANDRE | 30 | 15 | - | 3 |
| GCIV2042-2 | <i>Designing buildings in high-risk areas</i> - Vincent DENOËL, André PLUMIER | 16 | 8 | - | 2 |
| GCIV2063-1 | <i>Planning buildings, co-ordination and safety on building sites</i> - Jean-Marie RIGO | 15 | 15 | - | 2 |
| ARCH0019-2 | <i>Project management II</i> - N... - Suppl : Sylvain KUBICKI - [2d FW] | 15 | 15 | [+] | 2 |
| ELEC0434-1 | <i>Residential electric installations</i> - Jean-Louis LILIEN | 15 | 15 | - | 2 |
| GCIV0133-9 | <i>Maintenance, restoration and protection of buildings</i> - Luc COURARD, André PLUMIER - [1d FW] | 30 | 10 | [+] | 3 |

Teaching and civil engineering

Notice : Notice : All the lectures are given in English

| | | | | | |
|------------|--|----|----|---|---|
| GCIV2056-1 | <i>Sustainable materials and structures</i> (english language) - Luc COURARD, Jean-Pierre JASPART, Barbara ROSSI | 30 | 30 | - | 5 |
| GCIV2058-2 | <i>Environmental geotechnics</i> (english language) - Frédéric COLLIN | 30 | 30 | - | 5 |
| GCIV0625-1 | <i>Water purification</i> (english language) - Frank DELVIGNE | 30 | 15 | - | 3 |
| GCIV2060-1 | <i>Watershed management</i> (english language) - Benjamin DEWALS, Sébastien ERPICUM | 20 | 20 | - | 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> - 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

| | | | | | |
|-------------|--|----|----|-----|----------|
| G CIV0097-1 | <i>Steel and concrete constructions I</i> - Jean-Pierre JASPART - Suppl : Sorin-Ioan DAN | 30 | 30 | - | 5 |
| G CIV0603-2 | <i>Geotechnics and infrastructure</i> - Robert CHARLIER - [1d FW] | 30 | 30 | [+] | 5 |
| G CIV0604-1 | <i>Hydraulics</i> - Michel PIROTON | 15 | 15 | - | 3 |
| G CIV0184-5 | <i>Building Materials</i> - Luc COURARD - [1d FW] | 30 | 30 | [+] | 5 |
| MECA0012-5 | <i>Solid mechanics</i> - Laurent DUCHENE, Anne HABRAKEN | 30 | 30 | - | 5 |
| G CIV0624-1 | <i>Structural mechanics</i> - Jean-Marc FRANSSSEN | 40 | 50 | - | 7 |