Block view of the study programme

		Or	Th	Pr	Au	Cr
Bloc 1 du programme de l'année						
Compulsory courses						
CHIM9282-1	*Analytical Chemistry, Part A : chemical techniques of analysis* - Gauthier EPPE	Q1	20	-	-	**2**
CHIM9282-3	*Analytical Chemistry, Part B : Physicochemical techniques of analysis* - Gauthier EPPE **Corequisite :** CHIM9282-1 - Chimie analytique	Q2	10	30	-	**3**
GEOL0006-4	*Rocks and sedimentary processes (partie 1)* - Frédéric BOULVAIN - [4h Labo.]	Q1	30	-	[+]	**3**
GEOL0316-1	*Rocks and sedimentary processes (part 2)* - Frédéric BOULVAIN - [6d FW] **Corequisite :** GEOL0006-4 - Roches et processus sédimentaires	Q2	20	-	[+]	**2**
GEOL1042-1	*Geological imaging and inverse modeling* (english language) - Frédéric NGUYEN, Eric PIRARD - [30h Proj.]	Q1	30	10	[+]	**5**
GCIV0045-4	*Rock mechanics, tunnels, rock slopes, rock foundations* - Robert CHARLIER - [1d FW, 50h Proj.]	Q2	20	4	[+]	**5**
GEOL0097-2	*Geostatistics* (english language) - Eric PIRARD - [30h Labo.]	Q1	30	-	[+]	**5**
GEOL0279-1	*Geological mapping* - HansBalder HAVENITH - [2d FW, 10h Labo., 50h Proj.]	Q2	10	20	[+]	**5**
Optional courses						
Choose one specialization amongst :						
Spécialisation A : Mineral resources & recycling						
GEOL0289-1	*Analytic mineralogy* (english language) - Frédéric HATERT - [15h Labo.]	Q2	30	15	[+]	**5**
GEOL0315-1	*Solid Waste and by products processing* (english language) - Stoyan GAYDARDZHIEV - [20h Labo., 7h Proj., 1,5d FW]	Q1	20	-	[+]	**5**
GEOL0237-2	*Exploitation of minerals deposits* - Eric POOT - [1d FW]	Q2	20	10	[+]	**5**
GEOL0312-1	*Process mineralogy* (english language) - Eric PIRARD - [25h Labo., 15h Proj.]	Q1	25	-	[+]	**5**
Spécialisation B : Environmental & géological engineering						
GEOL0083-3	*Groundwater modelling* (english language) - Alain DASSARGUES - [30h Labo., 30h Proj.]	Q1	30	-	[+]	**5**
GEOL0270-2	*Geohazard assessment and geomorphology* (english language) - HansBalder HAVENITH - [1d FW, 5h Labo., 15h Proj.]	Q1	30	10	[+]	**5**
GEOL1028-1	*Site investigation* - Serge BROUYÈRE, Frédéric NGUYEN - [5d FW, 60h Proj.]	Q2	12	-	[+]	**5**
GEOL0277-1	*Groundwater quality and protection* - Serge BROUYÈRE - [1d FW, 35h Proj.]	Q1	20	20	[+]	**5**
[...]	Choose courses totalling 10 ECTS from the list below :					
GCIV0185-7	*Straight-line Numerical Methods for Civil Engineering and Geology* - Laurent DUCHENE, Michel PIROTTON - [30h Proj.]	Q1	25	35	[+]	**5**
GEOL0008-1	*Origin and production of hydrocarbons* - Pierre CORNET, Xavier LIMPENS	Q1	30	-	-	**5**
GCIV0184-4	*Building materials* - Luc COURARD - [1d FW, 12h Labo., 12h Proj.]	Q2	36	4	[+]	**5**
GEOL0029-4	*Tectonics* - Olivier BOLLE - [2d FW]	Q1	30	20	[+]	**5**
GEOL0310-1	*Project* - COLLÉGIALITÉ, Stoyan GAYDARDZHIEV, Frédéric NGUYEN - [4d	TA	10	-	[+]	**5**

FW, 10h Labo., 90h Proj.]

Notice : If the president of the cycle's panel agrees, in particular regarding the technical content, the master's integrated project can be part of an interdisciplinary project (e.g. project engineer, Eurobot, Eco-Shell Marathon, etc.). It is possible to have done the project between the third year of the bachelor's degree and the second year of the master's.

Notice : in agreement with the president of the jury, students who didn't take the minor and/or major `Georesources and Environment¿ option during their bachelor¿s degree at ULg, can achieve the required level by choosing the courses lacking in their curriculum from among the block 2 and block 3 courses in the `Georesources and Environment¿ option (formerly `Geological Engineering¿) of the bachelor¿s degree. In agreement with the president of the jury, a course may also be chosen from among the other master¿s degrees offered by the Faculty of Applied Sciences or from the Master in Geology (Faculty of Sciences).

[...] Choose one course not already taken from the specialization A or B

Notice : If the president of the cycle's panel agrees, in particular regarding the technical content, the master's integrated project can be part of an interdisciplinary project (e.g. project engineer, Eurobot, Eco-Shell Marathon, etc.). It is possible to have done the project between the third year of the bachelor's degree and the second year of the master's.

Notice : The master is "bilingual French/English". Therefore, students who actively master French and/or English and another language passively will be capable of following the classes.
On a practical level, students can communicate with staff in both languages. Course material exists in both French and English (pdf, ppt and reference books). Students must indicate in which language they would like the questions to be.

Bloc 2 du programme de l'année

Compulsory courses

ATFE0011-1	*Final Work (including an introduction to research methodology)* - COLLÉGIALITÉ	TA	-	-	-	**20**
ASTG0017-1	*Placement* - Serge BROUYÈRE	TA	-	-	-	**5**
GEST3162-1	*Principles of management* (english language) - Michael GHILISSEN, François PICHAULT, Thierry PIRONET, Didier VAN CAILLIE	Q1	25	25	-	**5**

Optional courses

Single focus

Research Focus

Poursuivre la spécialisation choisir en bloc 1

Spécialisation A : Mineral resources & recycling

GEOL0281-4	*Environmental aspects of industrial and mining activities* - Stoyan GAYDARDZHIEV - [1d FW, 25h Labo., 5h Proj.]	Q1	25	-	[+]	**5**
GEOL1043-1	(pas organisé en 2015-2016) *Extractive metallurgy* (english language)	Q1	30	30	-	**5**
GEOL1044-1	(pas organisé en 2015-2016) *Raw materials value chain* (english language)	Q1	30	30	-	**5**
GEOL1045-1	(pas organisé en 2015-2016) *Economic and societal issues in mining* (english language) - [30h Proj., 2d FW]	Q1	15	-	[+]	**5**

Spécialisation B : Environmental & géological engineering

GEOL1046-1	(pas organisé en 2015-2016) *Geothermy* (english language) - [40h Proj., 1d FW] **Prerequisite :**	Q1	18	15	[+]	**5**

GEOL0083-3 - Groundwater modelling

GEOL0313-1	*Remediation of contaminated sites* - Serge BROUYÈRE - [2d FW, 40h Proj.]	Q1	24	24	[+]	**5**
GCIV2058-1	*Environmental geotechnics* (english language) - Frédéric COLLIN - [1d FW, 10h Labo., 15h Proj.]	Q1	20	10	[+]	**5**
GEOL1047-1	(pas organisé en 2015-2016) *Engineering geology* (english language) - [30h Proj., 2d FW]	Q1	15	-	[+]	**5**

Choose courses totalling 10 credits out of the following :

GCIV0185-7	*Straight-line Numerical Methods for Civil Engineering and Geology* - Laurent DUCHENE, Michel PIROTTON - [30h Proj.]	Q1	25	35	[+]	**5**
GEOL0008-1	*Origin and production of hydrocarbons* - Pierre CORNET, Xavier LIMPENS (Even years)	Q1	30	-	-	**5**
GCIV0184-4	*Building materials* - Luc COURARD - [1d FW, 12h Labo., 12h Proj.]	Q2	36	4	[+]	**5**
GEOL0029-4	*Tectonics* - Olivier BOLLE - [2d FW]	Q1	30	20	[+]	**5**
GEOL0310-1	*Project* - COLLÉGIALITÉ, Stoyan GAYDARDZHIEV, Frédéric NGUYEN - [4d FW, 10h Labo., 90h Proj.]	TA	10	-	[+]	**5**

[...] Not followed specialisation courses A of B

Notice : If the president of the cycle's panel agrees, in particular regarding the technical content, the master's integrated project can be part of an interdisciplinary project (e.g. project engineer, Eurobot, Eco-Shell Marathon, etc.). It is possible to have done the project between the third year of the bachelor's degree and the second year of the master's.

Programme transitoire à destination des étudiants ayant réussi leur master 1 de "Master en ingénieur civil des mines et géologue, à finalité approfondie" en 2014-2015

Bloc 1 du programme de l'année

Optional courses

Single focus

Research Focus

GEOL0234-3	*Modelling and inversion in geophysics* - Frédéric NGUYEN - [15h Proj.]	Q1	20	20	[+]	**3**
GEOL0236-2	*Remote sensing and geological imaging* - Eric PIRARD - [50h Proj.]	Q1	30	10	[+]	**5**
GCIV2058-1	*Environmental geotechnics* (english language) - Frédéric COLLIN - [1d FW, 10h Labo., 15h Proj.]	Q1	20	10	[+]	**3**
GEOL0270-2	*Geohazard assessment and geomorphology* (english language) - HansBalder HAVENITH - [1d FW, 5h Labo., 15h Proj.]	Q1	30	10	[+]	**4**
GEOL0281-4	*Environmental aspects of industrial and mining activities* - Stoyan GAYDARDZHIEV - [1d FW, 25h Labo., 5h Proj.]	Q1	25	-	[+]	**4**
GEOL0310-1	*Project* - COLLÉGIALITÉ, Stoyan GAYDARDZHIEV, Frédéric NGUYEN - [4d FW, 10h Labo., 90h Proj.]	TA	10	-	[+]	**5**

Notice : If the president of the cycle's panel agrees, in particular regarding the technical content, the master's integrated project can be part of an interdisciplinary project (e.g. project engineer, Eurobot, Eco-Shell Marathon, etc.). It is possible to have done the project between the third year of the bachelor's degree and the second year of the master's.

Choose courses totalling 7 ECTS from the following :

GCIV0090-2	*Introduction to free surface flows* - Michel PIROTTON	Q1	15	10	-	**2**
GEOL0008-1	*Origin and production of hydrocarbons* - Pierre CORNET, Xavier LIMPENS (Even years)	Q1	30	-	-	**2**
GEOL0312-1	*Process mineralogy* (english language) - Eric PIRARD - [25h Labo., 15h Proj.]	Q1	25	-	[+]	**4**
GEOL0313-1	*Remediation of contaminated sites* - Serge BROUYÈRE - [2d FW, 40h Proj.]	Q1	24	24	[+]	**4**

Compulsory courses

GEST3162-1	*Principles of management* (english language) - Michael GHILISSEN, François PICHAULT, Thierry PIRONET, Didier VAN CAILLIE	Q1	25	25	-	**5**
ASTG0017-1	*Placement* - Serge BROUYÈRE	TA	-	-	-	**5**
ATFE0011-1	*Final Work (including an introduction to research methodology)* - COLLÉGIALITÉ	TA	-	-	-	**20**

Notice : Final year trip: at the beginning of the academic year, prior to the organisation of the courses, guided tours to companies, geological sites (optional).