

## Cycle view of the study programme

B1 Or Th Pr Au Cr

### Focus compulsory courses (B2 : 10Cr)

SSTG0011-1 *Work placement* - COLLÉGIALITÉ, Valentin FISCHER - [4w Internship] B2 Q2 - - [+] 10

### Focus optional courses (B2 : 20Cr)

Choose courses, with the approval of the Jury, totalling 20 credits among : (B2 : 20Cr)

[...] choose extra courses from the ULiège curriculum that haven't already been chosen for a total of 11 to 20 credits

[...] Maximum 9 ECTS can be chosen in the courses' programme of another university

### Compulsory courses (B1 : 15Cr, B2 : 30Cr)

GEOL0210-1 *Fieldwork in foreign countries* - Olivier BOLLE, Bernard CHARLIER, AnneChristine DA SILVA, Nathalie FAGEL, Valentin FISCHER, Frédéric HATERT, HansBalder HAVENITH, Cyrille PRESTIANNI, Jacqueline VANDER AUWERA - [10d FW] B1 Q2 - - [+] 5

GEOL0301-1 *Cartography and geomodelling (personnal work)* - HansBalder HAVENITH - [15d FW] B1 TA 10 30 [+] 10

SMEM0022-1 *Final thesis* - COLLÉGIALITÉ, Jacqueline VANDER AUWERA B2 TA - - - 27

GEOL0318-1 *Scientific writing and communication* - Annick ANCEAU, COLLÉGIALITÉ B2 Q1 10 10 - 3

### Optional courses (B1 : 45Cr)

In agreement with the Jury, choose courses not already taken for a total of 45 credits, in at least two different fields, among: (B1 : 45Cr)

#### Resources and methods

GEOL0209-1 *Isotopic geochemistry* - Jacqueline VANDER AUWERA (Odd years) B1 Q1 20 10 - 3

GEOL1041-1 *Gemmology* - Frédéric HATERT B1 Q1 15 15 - 3

GEOL0296-1 *Clays and environment* - Nathalie FAGEL - [1d FW] (Even years) B1 Q1 15 15 [+] 4

GEOL0020-7 *Mineral resources* (english language) - Eric PIRARD - [1d FW, 26h Labo., 32h Proj.] B1 Q1 26 - [+] 5

GEOL0277-1 *Groundwater quality and protection* (english language) - Serge BROUYÈRE, Philippe ORBAN - [1d FW, 35h Proj.] B1 Q1 20 20 [+] 5

GEOL0313-1 *Remediation of contaminated sites* (english language) - Serge BROUYÈRE - [2d FW, 40h Proj.] B1 Q1 24 24 [+] 4

GEOL0237-2 *Exploitation of mineral deposits* (english language) - Nicolas VASBINDER - [2d FW] B1 Q1 25 15 [+] 5

GEOL0021-7 *Geophysical prospecting* - Frédéric NGUYEN - [5d FW, 20h Proj.] B1 Q2 26 20 [+] 5

GCIV0620-1 *Introduction to geotechnics*  
- Part A - Bertrand FRANÇOIS - [1d FW] B1 Q1 20 10 [+] 5  
- Part B - Bertrand FRANÇOIS 10 10 -

CRIS0204-1 *Complement of crystallography* - Frédéric HATERT B1 Q2 15 10 - 3

GEOL1040-1 *Metallogeny* - Bernard CHARLIER B1 Q2 15 15 - 4

GEOL0008-2 *Hydrocarbons and energy transition - Exploration*  
- Energy context and exploration of hydrocarbons - Pierre CORNET B1 Q1 15 - - 4  
- Additional theory and practice - Pierre CORNET 5 20 -

GEOL1050-1 *Hydrocarbons and the energy transition - Techniques for extracting hydrocarbons and reducing emissions* - Xavier LIMPENS B1 Q1 15 - - 3

GEOL1046-1 *Geothermal energy* (english language) - Bertrand FRANÇOIS, Philippe ORBAN - [40h Proj., 1d FW] B1 Q2 18 15 [+] 5

PHYS0999-1 *Digital creation in sciences* - Roland BILLEN, Valentin FISCHER, B1 TA 10 - [+] 5

Pierre MATHONET, JeanChristophe MONBALIU, Eric PARMENTIER,  
Nicolas VANDEWALLE - [30h Proj.]

**Evolution of the Earth and the biosphere**

GEOL0099-1	<i>Biodiversity and extinctions</i> (english language) - Valentin FISCHER - [2d FW]	B1	Q1	25	-	[+]	3
GEOL0224-2	<i>Paleoclimatology</i> - Nathalie FAGEL - [1d FW]	B1	Q1	15	15	[+]	3
GEOL1022-2	<i>Origin and early evolution of life</i> (english language) - Emmanuelle JAVAUX	B1	Q1	20	10	-	3
GEOL1049-1	<i>Palaeobiology</i> (english language) - Julien DENAYER, Valentin FISCHER - [2d FW]	B1	Q1	25	15	[+]	4
SPAT0027-3	<i>Climate change and impacts</i> (english language) - Louis FRANÇOIS, Guy MUNHOVEN	B1	TA	30	30	-	5
CLIM0009-1	<i>Biogeochemical cycle modelling and global changes</i> - Louis FRANÇOIS	B1	Q1	20	20	-	4
SPAT0054-1	<i>Astrophysics and astrochemistry</i> - Michaël DE BECKER	B1	Q2	20	-	-	3
GEOL0263-1	<i>Astrobiology</i> (english language) - Vinciane DEBAILLE, Emmanuelle JAVAUX, Yaël NAZÉ, Annick WILMOTTE	B1	Q2	45	-	-	5
GEOL0282-2	<i>Sedimentary and environmental geochemistry</i> - Nathalie FAGEL	B1	Q1	15	15	-	3
GEOL1023-1	<i>Palynology</i> - Cyrille PRESTIANNI	B1	Q2	30	-	-	4

**Geological processes**

GEOG0670-1	<i>Active Tectonics and Seismology</i> (english language) - Clara BRERETON, HansBalder HAVENITH, Aurelia HUBERT - [2d FW]	B1	Q1	20	10	[+]	5
GEOL0319-1	<i>Geological hazard and risk assessment, From theory to field work</i> (english language) - HansBalder HAVENITH - [2d FW, 20h Proj.] (Odd years)	B1	Q2	20	5	[+]	5
GEOL0213-1	<i>Geodynamics</i> - Bernard BINGEN	B1	Q2	15	-	-	3
GEOG0212-1	<i>Pedology</i> - Gilles COLINET, JeanThomas CORNELIS - Suppl : Gilles COLINET, Marie DINCHER - [1d FW] (Even years)	B1	Q2	15	8	[+]	3
GEOL1039-2	<i>Geological oceanography, From theory to field work</i> - Nathalie FAGEL - [1d FW]	B1	Q1	20	20	[+]	4
GEOL0256-1	<i>Marine sediment geochemistry</i> (english language) - Nathalie FAGEL	B1	Q1	15	15	-	4
GEOL0292-1	<i>Sedimentology applied to archaeology</i> - Stéphane PIRSON - [8d FT Tr. Pr.]	B1	Q2	30	-	[+]	5
GEOL0302-1	<i>Volcanology</i> - Jacqueline VANDER AUWERA (Even years)	B1	Q1	15	15	-	4
GEOL0223-1	<i>Complement of tectonics</i> - Olivier BOLLE (Even years)	B1	Q2	15	15	-	4

[...] One or two listed courses chosen from programmes in other parts of the Faculty of Sciences, other faculties or other universities.

**Bridging courses (max 60 credits) Master in geology (120 credits)**

**Compulsory courses (B0 : 54Cr)**

GEOL1033-1	<i>Crystallography and Mineralogy - Part A</i> - Frédéric HATERT	B0	Q1	20	30	-	4
PALE0202-3	<i>Paleobotany</i> - Cyrille PRESTIANNI - Suppl : Valentin FISCHER - [1d FW]	B0	Q2	20	20	[+]	4

GEOL1034-1	<i>Crystallography and Mineralogy - Part B</i> - Frédéric HATERT - [3d FW]	B0	Q2	10	20	[+]	<b>4</b>
GEOL0018-1	<i>Sedimentology and sedimentary petrology</i> - AnneChristine DA SILVA	B0	Q1	20	20	-	<b>4</b>
GEOL0029-5	<i>Tectonics</i> - Part A - Olivier BOLLE - Part B - Olivier BOLLE	B0	Q1	30 10	20 10	- -	<b>5</b>
GEOL0013-5	<i>Hydrogeology</i> - Part A - Serge BROUYÈRE - [1d FW] - Part B - Serge BROUYÈRE - [10h Proj.]	B0	Q1	26 -	20 -	[+] [+]	<b>4</b>
GEOL0320-1	<i>Cosmochemistry and geochemistry</i> - Jacqueline VANDER AUWERA	B0	Q1	25	-	-	<b>2</b>
GEOL1035-1	<i>Magmatic Petrology</i> - Jacqueline VANDER AUWERA	B0	Q1	15	25	-	<b>4</b>
GEOL1037-2	<i>Analytical mineralogy, Part A</i> - Frédéric HATERT	B0	Q2	10	10	-	<b>2</b>
GEOL0284-1	<i>Geology of Wallonia</i> - AnneChristine DA SILVA - [6d FW]	B0	Q2	20	-	[+]	<b>4</b>
GEOL0268-2	<i>Introduction to Research</i> - Annick ANCEAU, COLLÉGIALITÉ	B0	Q2	20	20	-	<b>5</b>
GEOL0300-1	<i>Structural geology and geomorphology, digital mapping</i> - HansBalder HAVENITH - [3d FW]	B0	Q2	10	20	[+]	<b>3</b>
GEOL1036-1	<i>Metamorphic Petrology</i> - Jacqueline VANDER AUWERA	B0	Q2	15	25	-	<b>3</b>
GEOL0321-1	<i>Sedimentary geochemistry</i> - Nathalie FAGEL	B0	Q2	15	15	-	<b>2</b>
LANG0077-1	<i>English 2 (english language)</i> - Clara BRERETON, Véronique DOPPAGNE	B0	TA	45	-	-	<b>3</b>