

#### Cycle view of the study programme

B1 Or Th Pr Au Cr

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

GEOL0210-1	<i>Fieldwork in foreign countries</i> - 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	<i>Cartography and geomodelling (personnal work)</i> - HansBalder HAVENITH - [15d FW]	B1	TA	10	30	[+]	10
SMEM0022-1	<i>Final thesis</i> - COLLÉGIALITÉ	B2	TA	-	-	-	27
GEOL0318-1	<i>Scientific writing and communication</i> - Annick ANCEAU, COLLÉGIALITÉ	B2	Q1	-	20	-	3

#### Optional courses (B1 : 45Cr, B2 : 30Cr)

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	<i>Isotopic geochemistry</i> - Jacqueline VANDER AUWERA	B1	Q1	20	10	-	3
GEOL1041-1	<i>Gemmology and Analytical Mineralogy</i> - Frédéric HATERT	B1	Q1	15	15	-	3
GEOL0296-1	<i>Clays and environment</i> - Nathalie FAGEL - [1d FW] (Even years)	B1	Q1	15	15	[+]	4
GEOL0020-7	<i>Mineral resources</i> (english language) - Eric PIRARD - [1d FW, 26h Labo., 32h Proj.]	B1	Q1	26	-	[+]	5
GEOL0277-1	<i>Groundwater quality and protection</i> (english language) - Serge BROUYÈRE - [1d FW, 35h Proj.]	B1	Q1	20	20	[+]	5
GEOL0313-1	<i>Remediation of contaminated sites</i> (english language) - Serge BROUYÈRE - [2d FW, 40h Proj.]	B1	Q1	24	24	[+]	4
GEOL0237-2	<i>Exploitation of mineral deposits</i> (english language) - Nicolas VASBINDER - [2d FW]	B1	Q1	25	15	[+]	5
GEOL0021-7	<i>Geophysical prospecting</i> - Frédéric NGUYEN - [5d FW, 20h Proj.]	B1	Q2	26	20	[+]	5
GCIV0620-1	<i>Introduction to geotechnics</i> - Part A - Bertrand FRANÇOIS - [1d FW] - Part B	B1	Q1	20 10	10 10	[+] -	5
CRIS0204-1	<i>Complement of crystallography</i> - Frédéric HATERT	B1	Q2	15	10	-	3
GEOL1040-1	<i>Metallogeny</i> - Bernard CHARLIER	B1	Q2	15	15	-	4
GEOL0008-2	<i>Hydrocarbons and energy transition - Exploration</i> - Energy context and exploration of hydrocarbons - Pierre CORNET - Additional theory and practice - Pierre CORNET	B1	Q1	15 5	- 20	-	4
GEOL1050-1	<i>Hydrocarbons and the energy transition - Techniques for extracting hydrocarbons and reducing emissions</i> - Xavier LIMPENS	B1	Q1	15	-	-	3
GEOL0225-3	<i>Analytical geochemistry</i> - Nathalie FAGEL - [1d FW] (Odd years)	B1	Q2	10	10	[+]	3
GEOL1046-1	<i>Geothermal energy</i> (english language) - Alain DASSARGUES, Bertrand FRANÇOIS - [40h Proj., 1d FW]	B1	Q2	18	15	[+]	5

#### Evolution of the Earth and the biosphere

GEOL0297-1	<i>Diagenesis and dynamics of sedimentary basins</i> - Frédéric BOULVAIN, AnneChristine DA SILVA	B1	Q1	15	15	-	3
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) -	B1	Q1	20	10	-	3

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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) - Vincianne DEBAILLE, Véronique DEHANT, 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 - advanced course on Paleozoic spores</i> - Cyrille PRESTIANNI (Odd years)	B1	Q2	30	-	-	4

#### Geological processes

GEOL0304-1	<i>Introduction to neotectonics, seismology and physical volcanology</i> (english language) - Clara BRERETON, HansBalder HAVENITH - [2d FW]	B1	Q1	25	15	[+]	4
GEOL0319-1	<i>Geological hazard and risk assessment, From theory to field work</i> (english language) - HansBalder HAVENITH - [2d FW] (Odd years)	B1	Q2	25	10	[+]	4
GEOL0213-1	<i>Geodynamics</i> - Bernard BINGEN	B1	Q2	15	-	-	3
GEOG0212-1	<i>Pedology</i> - Gilles COLINET, JeanThomas CORNELIS - Suppl : 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	Q2	15	15	-	4
GEOL0223-1	<i>Complement of tectonics</i> - Olivier BOLLE (Even years)	B1	Q2	15	15	-	4
GEOL0303-1	<i>Geomagnetism and environmental magnetism</i> (english language) - AnneChristine DA SILVA (Even years)	B1	Q2	15	5	-	3

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

#### Single focus (B2 : 1Nbr)

##### Research Focus (B2 : 30Cr)

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

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

### Additional ECTS (max 60) Master in geology (120 ECTS)

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

GEOL1033-1	<i>Crystallography and Mineralogy - Part A</i> - Frédéric HATERT	B0	Q1	20	30	-	<b>4</b>
PALE0202-3	<i>Paleobotany</i> - Cyrille PRESTIANNI - [1d FW]	B0	Q2	20	20	[+]	<b>4</b>
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> - Frédéric BOULVAIN	B0	Q1	30	30	-	<b>5</b>
GEOL0029-5	<i>Tectonics</i> - Part A - Olivier BOLLE - Part B - Olivier BOLLE	B0	Q1	30	20	-	<b>5</b>
GEOL0013-5	<i>Hydrogeology</i> - Part A - Alain DASSARGUES - [1d FW] - Part B - [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>X-ray Crystallography, Part A</i> - Frédéric HATERT	B0	Q1	10	10	-	<b>2</b>
GEOL0284-1	<i>Geology of Wallonia</i> - Frédéric BOULVAIN - [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>