

**Cycle view of the study programme**

		B1	Or	Th	Pr	Au	Cr
<b>Compulsory courses (B1 : 30Cr)</b>							
GEOL0301-1	<i>Cartography and geomodelling (personnal work) - HansBalder HAVENITH - [15d FW]</i>	B1	Q2	10	30	[+]	10
GEOL0268-2	<i>Introduction to Research - Annick ANCEAU</i>	B1	Q1	20	20	-	3
SMEM0021-1	<i>Final thesis - COLLÉGIALITÉ</i>	B1	TA	-	-	-	17

**Optional courses (B1 : 30Cr)**

In agreement with the Jury, choose courses for a total of 30 credits, in at least two different fields, from : (B1 : 30Cr)

**Resources and methods**

GEOL0308-1	<i>Environmental geology related to renewable energy resources and mining (english language) - HansBalder HAVENITH - [1d FW]</i>	B1	Q2	20	10	[+]	3
GEOL0296-1	<i>Clays and environment - Nathalie FAGEL - [1d FW]</i>	B1	Q1	15	15	[+]	4
GEOL0020-7	<i>Mineral resources (english language) - Eric PIRARD - [1d FW, 30h Labo., 32h Proj.]</i>	B1	Q1	30	-	[+]	5
GEOL0277-1	<i>Groundwater quality and protection - Serge BROUYÈRE - [1d FW, 35h Proj.]</i>	B1	Q1	20	20	[+]	5
GEOL0237-2	<i>Exploitation of minerals deposits - Eric POOT - [1d FW]</i>	B1	Q2	20	10	[+]	5
GEOL1021-1	<i>Introduction to geophysical exploration - Lucien HALLEUX, Frédéric NGUYEN - [5d FW]</i>	B1	Q2	30	30	[+]	6
CRIS0204-1	<i>Complement of crystallography - Frédéric HATERT</i>	B1	Q2	15	-	-	3
GEOL0254-1	<i>Gravimetrics, magnetism, and their geological applications - Michel EVERAERTS</i>	B1	Q2	15	15	-	4
GEOL1040-1	<i>Metallogeny - Bernard CHARLIER</i>	B1	Q2	15	15	-	3
GEOL0307-1	<i>Geology applied to the exploration of hydrocarbons - Pierre CORNET</i>	B1	Q1	20	20	-	4
GEOL1041-1	<i>Gemmology and Analytical Mineralogy - Frédéric HATERT</i>	B1	Q1	15	15	-	3
GEOL0306-1	<i>Techniques for extracting non-conventional hydrocarbons - Xavier LIMPENS (Even years)</i>	B1	Q1	15	-	-	3
GEOL0225-3	<i>Analytical geochemistry - Nathalie FAGEL - [1d FW] (Odd years)</i>	B1	Q1	10	10	[+]	3

**Evolution of the Earth and the biosphere**

GEOL0305-1	<i>Paleoecology - Julien DENAYER, Valentin FISCHER - [2d FW]</i>	B1	Q1	15	-	[+]	3
GEOL0221-1	<i>Quaternary Palynology - Mona COURTPICON</i>	B1	Q2	15	15	-	4
SPAT0027-4	<i>Climate change and impacts - Louis FRANÇOIS, Guy MUNHOVEN</i>	B1	TA	15	15	-	4
CLIM0009-1	<i>Biogeochemical cycle modelling and global changes - Louis FRANÇOIS</i>	B1	Q1	20	20	-	4
GEOL0317-1	<i>(pas organisé en 2016-2017) Evolution and palaeobiological inferences (english language) - Valentin FISCHER</i>	B1	Q1	15	15	-	3
SPAT0054-1	<i>Astrophysics and astrochemistry - Michaël DE BECKER</i>	B1	Q2	15	5	-	3
GEOL1022-2	<i>Evolution of the biosphere in the Precambrian - Emmanuelle JAVAUX</i>	B1	Q1	20	10	-	3
GEOL0099-1	<i>Evolution of the Phanerozoic biosphere (english language) - Valentin FISCHER - [2d FW]</i>	B1	Q1	20	-	[+]	3
GEOL0263-1	<i>Astrobiology - Philippe CLAEYS, Véronique DEHANT, Moreno GALLEN, Emmanuelle JAVAUX, Yaël NAZÉ, Annick WILMOTTE (Even years)</i>	B1	Q2	30	15	-	5
GEOL0224-2	<i>Paleoclimatology - Nathalie FAGEL - [1d FW] (Odd years)</i>	B1	Q1	15	15	[+]	4

GEOL1023-1	<i>Palynology - advanced course on Paleozoic spores -</i> Philippe STEEMANS (Odd years)	B1	Q2	30	-	-	4
GEOL0220-1	<i>Cainozoic Stratigraphy -</i> Emile ROCHE (Odd years)	B1	Q1	15	-	-	3
<b>Geological processes</b>							
GEOL0309-1	<i>Assessment of geological risk (english language) -</i> HansBalder HAVENITH - [3d FW]	B1	Q1	30	15	[+]	4
GEOL0213-1	<i>Geodynamics -</i> Bernard BINGEN	B1	Q2	15	-	-	3
GEOG0212-1	<i>Pedology -</i> Gilles COLINET - [1d FW]	B1	Q2	15	8	[+]	3
GEOL1039-2	<i>geological oceanography -</i> Nathalie FAGEL - [1d FW]	B1	Q1	20	20	[+]	4
GEOL0256-1	<i>Marine sediment geochemistry (english language) -</i> Nathalie FAGEL	B1	Q1	15	15	-	4
GEOL0292-1	<i>Sedimentology applied to archaeology -</i> Stéphane PIRSON - Suppl : AnneChristine DA SILVA - [8d FT Tr. Pr.]	B1		30	-	[+]	5
GEOL0304-1	<i>Introduction to neotectonics, seismology and physical volcanology</i> (english language) - HansBalder HAVENITH - [2d FW]	B1	Q1	25	15	[+]	4
GEOL0297-1	<i>Diagenesis and dynamics of sedimentary basins -</i> Frédéric BOULVAIN, AnneChristine DA SILVA	B1	Q2	15	15	-	3
GEOL0282-2	<i>Sedimentary and environmental geochemistry -</i> Nathalie FAGEL	B1	Q1	15	15	-	3
GEOL0209-1	<i>Isotopic geochemistry -</i> Jacqueline VANDER AUWERA	B1	Q1	20	10	-	3
GEOL0302-1	<i>Volcanology -</i> Jacqueline VANDER AUWERA (Even years)	B1	Q2	20	30	-	5
GEOL0223-1	<i>Complement of tectonics -</i> Olivier BOLLE (Even years)	B1	Q2	15	15	-	4
GEOL0303-1	<i>Geomagnetism and environmental magnetism (english language) -</i> AnneChristine DA SILVA (Even years)	B1	Q2	15	5	-	3
GEOL1030-1	<i>Meteoric palaeoweathering -</i> Johan YANS - [1d FW] (Odd years)	B1	Q2	12	12	[+]	3
<b>Miscellaneous</b>							
GEOL0083-3	<i>Groundwater modelling (english language) -</i> Alain DASSARGUES - [30h Labo., 30h Proj.]	B1	Q1	30	-	[+]	5
GCIV0620-1	<i>Introduction to geotechnics -</i> Robert CHARLIER - [1d FW]	B1	Q1	30	20	[+]	5
GEOL1028-1	<i>Site investigation -</i> Serge BROUYÈRE, Frédéric NGUYEN - [5d FW, 60h Proj.]	B1	Q2	12	-	[+]	3
GEOL0313-1	<i>Remediation of contaminated sites -</i> Serge BROUYÈRE - [2d FW, 40h Proj.]	B1	Q1	24	24	[+]	4
GEOL0023-2	<i>Engineering geology (integrated project) -</i> Frédéric NGUYEN - [3d FW]	B1	Q1	25	25	[+]	5
DOCU0455-1	<i>Introduction to critical thinking -</i> Yaël NAZÉ	B1	Q2	10	5	-	2
SPOL2209-3	<i>Environmental and land policies -</i> Sophie HANSON	B1	Q1	30	-	-	3
[...]	1 or 2 course(s) from the courses' programme of the University of Liege						