

First Year

Compulsory courses

DROI0724-2	<i>law and engineering</i> - Pascale LECOCQ	15	-	-	2
Engineering Techniques					
CHIM0004-1	<i>Analytical chemistry</i> - Bernard GILBERT	30	20	-	4
CHIM0010-2	<i>Knowledge of Non-Metallic Materials</i> - Jean-Marie RIGO	25	-	-	2
ELEN0007-1	<i>Electronics Basics</i>	30	30	-	4,5
GCIV0041-2	<i>Soil Mechanics, Foundations, Roads and Retaining Structures</i> - Robert CHARLIER - [1d FW]	20	20	[+]	3
GCIV0090-1	<i>Écoulements à surface libre</i> - André LEJEUNE, Michel PIROTON - [1d FW]	25	25	[+]	4
MECA0152-1	<i>Applied Thermodynamics</i> - Jean LEBRUN	20	20	-	3
MECA0012-5	<i>Mechanics of materials (english)</i> - Serge CESCOTTO	30	30	-	4,5
META0002-5	<i>Metallic Materials</i> - Jean-Pierre COHEUR	25	-	-	2
Geology Techniques					
GEOL0021-1	<i>Applied Geophysics</i> - Frédéric NGUYEN - [4d FW]	30	15	[+]	5
GEOL0031-1	<i>Geochemistry</i>	20	10	-	2,5
GEOL0048-1	<i>Statistical Analysis of Geological Data</i> - Eric PIRARD	15	15	-	2
GEOL0248-1	<i>Personal project work in processing geological data</i>	-	20	-	3
Geology and Mineralogy					
GEOL0005-2	<i>Crystallography and Mineralogy</i> - André-Mathieu FRANSOLET	30	30	-	4,5
GEOL0017-2	<i>General geology Holder</i> - Emmanuelle JAVAUX - [8d FW]	70	70	[+]	14
Notice : Co-ordinator : Frédéric BOULVAIN					

Second Year

Compulsory courses

GEST0106-1	<i>Elements of Corporate Management</i> - Pierre-Armand MICHEL	30	-	-	3
Geological Engineering Techniques					
GCIV0045-3	<i>Rock mechanics, tunnels, rock slopes, rock foundations</i> - Robert CHARLIER	20	20	-	4
META0004-1	<i>Ore Dressing</i> - Stoyan GAYDARDZHIEV	20	20	-	3,5
MINE0005-1	<i>Mine and Quarry Working</i> - N... - Suppl : Jacques TACK	20	-	-	2,5
Applied Geology					
GEOL0013-1	<i>Hydrogeology</i> - Alain DASSARGUES	25	25	-	4
GEOL0020-1	<i>Mineral resources</i> - Eric PIRARD	25	25	-	4
GEOL0023-2	<i>Geology for Engineers</i> - Frédéric NGUYEN - [3d FW]	25	25	[+]	4,5
GEOL0033-1	<i>Geology of hydrocarbons</i> - COLLÉGIALITÉ	15	15	-	2
GEOL0249-1	<i>Personal project work in documentary research</i> - Annick ANCEAU, Eric PIRARD	-	15	-	3
Basic Geology					
Notice : This group of courses consists of 10 days coursework and fieldwork.					
GEOL0016-2	<i>Magmatic and metamorphic petrology</i> - Jacqueline VANDER AUWERA	20	20	-	4
GEOG0018-1	<i>Sedimentology</i> - Frédéric BOULVAIN	20	20	-	4
GEOL0029-2	<i>Tectonics</i> - Olivier BOLLE	20	10	-	3
GEOL0075-1	<i>Regional geology and geological cartography</i> - Frédéric BOULVAIN	20	20	-	4
Geology Digital Quantitative Techniques					
GCIV0185-1	<i>Numerical methods in Civil and Geological Engineering - I. Linear methods, Linear methods</i> - Hervé DEGÉE, Michel PIROTON	25	25	-	4
ELEN0042-1	<i>Digital signal processing</i> - Patricia ROUSSEAU	15	15	-	2
GEOL0250-1	<i>Personal project work in quantitative geology</i> - Eric PIRARD	-	20	-	2
GEOL0082-1	<i>Prospection géophysique II</i> - N...	15	15	-	2,5
GEOG0202-1	<i>Introduction to geographical information systems (GIS)</i> - Jean-Paul DONNAY	15	15	-	2,5
GEOL0094-1	<i>Spatial Analysis of Geological Data</i> - Eric PIRARD	10	10	-	2

Third Year

Compulsory courses

Tools

Notice : Carried out over four weeks, including exams

GEOL0234-1	<i>Modelling and inversion in geophysics</i> - Frédéric NGUYEN	15	15	-	2,5
GEOL0083-2	<i>Groundwater Modelling</i> - Alain DASSARGUES	15	15	-	2,5
GEOL0236-1	<i>Remote sensing and geo-imaging</i> - Eric PIRARD, Philippe TREFOIS	15	15	-	2,5
GEOL0097-2	<i>Geostatistics</i> - Eric PIRARD	15	15	-	2,5

Applications

Notice : Carried out over four weeks, including exams

GEOL0285-1	<i>Géologie minière et génie minéral</i> - Stoyan GAYDARDZHIEV, Pierre GOOSSENS	15	15	-	2,5
GEOL0238-1	<i>Groundwater production, protection and remediation</i> - Alain DASSARGUES	15	15	-	2,5
GEOL0239-1	<i>Natural hazards and geology for engineering</i> - Frédéric NGUYEN	15	15	-	2,5

Multidisciplinary Project

Notice : Group work integrating all aspects studied. Large scale Geological Engineering work or large scale Mineral industry work and their environmental impact.

GEOL0240-1	<i>Group multidisciplinary project</i> - Stoyan GAYDARDZHIEV	-	90	-	6,5
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Geological map survey

GEOL0073-1	<i>Geological surveying</i> - Hans-Balder HAVENITH - [30d FW]	-	-	[+]	6,5
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Optional Module

Choose one of the following courses :

GEOL0241-1	<i>Waste valorisation and storage</i> - Luc COURARD, Jean-Marie RIGO	15	15	-	2,5
META0024-1	<i>Biométallurgie</i> - N...	15	15	-	2,5

With the approval of the President of the Board of Studies, this course can be replaced by an equivalent in a school or Erasmus partner university (Building department or the Geology license).

ASTG0008-1	<i>Stage</i>	-	-	-	5
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Notice : Minimum six weeks, with a report to be written.

ATFE0001-1	<i>Travail de fin d'études</i>	-	-	-	22
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Notice : Preferably carried out within the framework of the training programme.

Voyage de fin d'études : En début d'année académique, préalablement à l'organisation des cours, visites commentées d'entreprises, de sites géologiques (facultatif).