

#### Further Informations

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

##### Liege - Levelling and Introductory Courses

Choose 6 courses out of the following : (B1 : 30Cr)

##### Characterization

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

GEOL0312-1 *Process mineralogy* (english language) - Hassan BOUZAHZAH, Eric PIRARD - [25h Labo., 15h Proj.] B1 Q1 25 - [+] 5

##### Processing

GEOL0314-1 *Mineral processing I - basics* (english language) - Stoyan GAYDARDZHIEV - [30h Labo., 10h Proj., 1,5d FW] B1 Q1 30 - [+] 5

GEOL0315-1 *Solid Waste and by products processing* (english language) - Stoyan GAYDARDZHIEV - [20h Labo., 7h Proj., 1,5d FW] B1 Q1 20 - [+] 5

##### Modelling

MATH0006-3 *Introduction to numerical analysis* (english language) - Quentin LOUVEAUX B1 Q1 20 20 - 5

GEOL0097-2 *Geostatistics* (english language) - Eric PIRARD - [30h Labo.] B1 Q1 30 - [+] 5

##### Management

GEOL1045-1 *Economic and societal issues in mining and recycling* (english language) - Eric PIRARD - [30h Proj., 2d FW] B1 Q1 15 - [+] 5

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

#### Compulsory courses (B1 : 30Cr)

##### Nancy - Basic Courses

##### Characterization

HULG0417-1 *Advanced characterization of mineral surfaces/water interface* (english language) - N... B1 Q2 35 10 - 5

##### Processing

HULG0418-1 *Case study of ore processing* (english language) - N... B1 Q2 10 40 - 5

HULG0419-1 *Advanced mineral processing* (english language) - N... B1 Q2 57 18 - 8

##### Modelling

HULG0421-1 *Resources modelling and evaluation* (english language) - N... B1 Q2 25 25 - 5

##### Management

HULG9270-1 *Management of resources* (english language) - N... B1 Q2 25 25 - 5

HULG9342-1 *Exploitation of mineral raw materials and environmental impact of mining* (english language) B1 Q2 9 16 - 2

#### Optional courses (B2 : 30Cr)

Choose one module from : (B2 : 30Cr)

##### Lulea - Advanced Courses (B2 : 30Cr)

#### Characterization

HULG0423-1 *Mining geology* (english language) - N... B2 Q1 45 30 - 7,5

#### Processing

HULG0424-1 *Mineral processing II* (english language) - N... B2 Q1 45 30 - 7,5

#### Modelling

HULG0426-1 *Geomaterials* (english language) - N... B2 Q1 46 20 - 7,5

Choose one of the following courses : (B2 : 7,5Cr)

HULG0425-1 *Simulation of mineral processing* (english language) - N... B2 Q1 40 35 - 7,5

HULG9143-1 *Senior Design Project in Mineral processing* (english language) B2 Q1 - - - 7,5

#### Freiberg - Advanced Courses (B2 : 30Cr)

*Notice* : this course list is for students enrolled in Block 1 of the master's degree in 2018-2019.

#### Processing

HULG9343-1 *Project-Process Design Mineral Processing/Recycling* (english language) B2 Q1 15 90 - 8

HULG9383-1 *Selective Separation of Strategic Elements* (english language) B2 Q1 30 30 - 5

HULG9384-1 *Thermodynamics and Heat Transfer* (english language) B2 Q1 15 30 - 4

HULG9385-1 *Practice of secondary raw materials* (english language) B2 Q1 15 60 - 4

#### Management

HULG9386-1 *Resource Management* (english language) B2 Q1 30 30 - 6

Choose one of the following courses : (B2 : 6Cr)

HULG9387-1 *Simulation of sustainable nonferrous metallurgical process systems* (english language) B2 Q1 30 - - 6

HULG9388-1 *Mineral Liberation Analysis of Mineral Resources* (english language) B2 Q1 30 - - 3

#### Compulsory courses (B2 : 30Cr)

##### Freiberg or Lulea or Nancy or Liege - Master Thesis

ASTG0113-1 *Internship with one of the associate industrial partners* (english language) - N... B2 Q2 - - - 5

ATFE0020-1 *Master thesis* (english language) - N... B2 Q2 - - - 25