

**Cycle view of the study programme**

B1 Or Th Pr Au Cr

**Compulsory courses (B1 : 60Cr, B2 : 30Cr)**

**Core courses common to the study paths**

GEOG0238-1	<i>Geographical Information Systems</i> - JeanPaul DONNAY <b>Corequisite :</b> GEOG0622-1 - Gestion des projets	B1	Q2	30	30	-	<b>6</b>
GEOG0650-2	<i>Impact studies</i> - Guénaël DEVILLET	B1	Q2	10	20	-	<b>3</b>
SPOL2209-3	<i>Environmental and land policies</i> - Sophie HANSON <b>Corequisite :</b> GEOG2036-1 - Développement et aménagement des territoires	B1	Q1	30	-	-	<b>2</b>
GEOG2036-1	<i>Territories Developments and Planning</i> - JeanMarie HALLEUX - [1d FW] <b>Corequisite :</b> SPOL2209-3 - Politique de l'environnement et du territoire	B1	Q1	15	15	[+]	<b>3</b>
GEOG0622-1	<i>Project management</i> - JeanPaul DONNAY <b>Corequisite :</b> GEOG0238-1 - S.I.G.	B1	Q2	10	10	-	<b>2</b>
GEOG0025-1	<i>Introduction to research</i> - JeanPaul DONNAY	B2	Q1	10	10	-	<b>2</b>
SMEM0002-1	<i>Final thesis</i> - COLLÉGIALITÉ	B2	TA	-	-	-	<b>22</b>

**Courses specific to the Study Path**

GEOG0626-1	<i>Theory of Errors</i> - René WARNANT	B1	Q1	15	25	-	<b>4</b>
PHYS0209-2	<i>Numerical methods in physics</i> - Alejandro SILHANEK	B1	Q1	15	20	-	<b>4</b>
GEOG2037-1	<i>Map Projections</i> - JeanPaul DONNAY <b>Corequisite :</b> PHYS0209-2 - Méthodes numériques de la physique	B1	Q2	15	15	-	<b>3</b>
GEOG0037-1	<i>Global Navigation Satellite Systems (english language)</i> - René WARNANT <b>Corequisite :</b> GEOG0626-1 - Théorie des erreurs	B1	Q2	40	15	-	<b>5</b>
GEOG0234-1	<i>Photogrammetry</i> - Yves CORNET	B1	Q1	30	15	-	<b>4</b>
GEOG2038-1	<i>Roadway and Diverse Networks</i> - Roland BILLEN	B1	Q1	10	20	-	<b>2</b>
GEOG2039-1	<i>Advanced Topography</i> - Roland BILLEN - [2d FW] <b>Corequisite :</b> GEOG0626-1 - Théorie des erreurs	B1	Q2	10	25	[+]	<b>4</b>
GEOG0022-2	<i>Integrated Geomatics Project</i> - Roland BILLEN, JeanPaul DONNAY - [70h FW] <b>Corequisite :</b> GEOG0238-1 - S.I.G. GEOG0234-1 - Photogrammétrie GEOG2038-1 - Voiries et réseaux divers (VRD) GEOG2039-1 - Topométrie avancée GEOG0037-1 - Global Navigation Satellite Systems	B1	Q2	-	-	[+]	<b>7</b>
DROI2222-1	<i>Notions of property law</i> - Pascale LECOCQ - Suppl : Arianne SALVÉ	B1	Q2	45	-	-	<b>5</b>
GEOG0645-1	<i>Professional practices : the geometrist</i> - Roland BILLEN <b>Corequisite :</b> DROI2222-1 - Notions de droit immobilier	B1	Q2	20	10	-	<b>3</b>
GEOG0267-1	<i>Land Administration</i> - Roland BILLEN, JeanMarie HALLEUX - [1d FW]	B1	Q2	15	15	[+]	<b>3</b>

*Notice* : graduates of the Bachelor in Geography, general orientation, option geomatics and geometrology, who have already taken some of the courses, can choose other courses from ULg's curriculum, with the approval of the jury, for the same amount of credits.

GEOG0631-2 *Seminars - COLLÉGIALITÉ - [20h SEM]* B2 TA - - [+] 3  
*Notice : Collegiality = Geography team*

GEOG0618-1 *Real estate markets - JeanMarie HALLEUX* B2 Q1 15 15 - 3

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

##### Single focus (B2 : 30Cr)

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

SSTG0020-1 *Training - COLLÉGIALITÉ - [120h Internship]* B2 TA - - [+] 8  
*Notice : Collegiality = Geomatics and Geometrology*

In agreement with the Jury, choose, from the two lists below, courses totalling 22 ECTS (B2 : 22Cr)

#### Surveyor

[...] including at least 10 ECTS from the list "Surveying"

GCIV0621-1 *Urban and environmental hydraulics - Benjamin DEWALS* B2 Q1 25 25 - 5  
 GCIV0620-1 *Introduction to geotechnics - Robert CHARLIER - [1d FW]* B2 Q1 30 20 [+] 5  
 GCIV0626-1 *Constructions : materials and pathologies - Luc COURARD* B2 Q1 40 10 - 5  
*(Odd years)*  
 ARCH0077-1 *Constructions : buildings and pathologies -* B2 Q1 40 10 - 5  
*JeanMarie HAUGLUSTAINE (Even years)*

#### Geomatics and computer science

[...] including maximum 12 ECTS from the list "Geomatics and computer science"

GEOG2044-1 *Spatial Analysis supplements - JeanPaul DONNAY* B2 Q2 15 20 - 4  
 GEOG2040-1 *GIScience - Roland BILLEN, Pierre HALLOT* B2 Q1 15 20 - 3  
 GEOG2041-1 *Teledetection supplements - Yves CORNET* B2 Q2 15 20 - 4  
 GEOG0038-1 *Space geodesy - René WARNANT - [1d FW]* B2 Q2 20 - [+] 2  
 GEOG2042-1 *Geomatics advanced Issues - COLLÉGIALITÉ* B2 Q2 15 20 - 4  
*Notice : Collegiality = Geomatics and Geometrology*  
 GEOG2043-1 *Photogrammetry supplements - Yves CORNET* B2 Q2 15 20 - 4  
 INFO0010-2 *Introduction to computer networking (english language) -* B2 Q2 30 15 - 5  
*Guy LEDUC*  
 INFO0062-1 *Object-oriented programming (english language) -* B2 Q2 30 24 [+] 5  
*Bernard BOIGELOT - [20h Proj.]*

## Additional ECTS Master in geography : geomatics and surveying

#### Optional courses (B0 : 60Cr)

Depending on the student's previous training and with the agreement of the jury, choose, if necessary, courses for a maximum of 60 credits among the following : (B0 : 60Cr)

MATH2014-1 *Mathematics Supplements - Françoise BASTIN* B0 Q2 20 20 - 4  
 PHYS0903-2 *General Physics II - Philippe GHOSEZ* B0 Q1 45 35 - 7  
 STAT0076-2 *General statistics - N... - Suppl : Catherine TIMMERMANS* B0 Q1 30 30 - 6  
 GEOG2018-1 *Geometric Geodesy and GNSS - René WARNANT* B0 Q2 30 15 - 4

GEOG2027-1	<i>Geodetic Supplements</i> - René WARNANT	B0	Q2	20	10	-	3
GEOG0232-4	<i>Topography : Equipments and Methods</i> - Roland BILLEN - [2d FW]	B0	Q1	30	15	[+]	6
GEOG2026-1	<i>Planology and DAO</i> - N...	B0	Q1	5	15	-	2
GEOG0206-1	<i>Cartography (with an introduction to GIS)</i> - JeanPaul DONNAY	B0	Q1	30	40	-	6
GEOG0255-1	<i>Space analysis and S.I.G.</i> - JeanPaul DONNAY	B0	Q1	30	30	-	6
GEOG2017-1	<i>Introduction to Remote Sensing</i> - Yves CORNET	B0	Q1	15	20	-	3
GEOG2022-1	<i>Remote sensing, profound notions</i> - Yves CORNET	B0	Q2	15	20	-	3
INFO0201-1	<i>Introduction to computer programming</i> - Peter SCHLAGHECK	B0	Q2	20	40	-	5
INFO0009-2	<i>Database (general organisation) (partim)</i> - Pierre WOLPER	B0	Q2	25	25	-	5

## Programme transitoire à destination des étudiants ayant réussi leur master 1 de "Master en sciences géographiques, orientation géomatique et géométrie, à finalité spécialisée" en 2014-2015

### Optional courses (B1 : 30Cr)

#### Follow-up to the focus chosen in first year (B1 : 30Cr)

##### Professional Focus (B1 : 30Cr)

INFO0010-2	<i>Introduction to computer networking</i> (english language) - Guy LEDUC	B1	Q2	30	15	-	5
SSTG0020-1	<i>Training</i> - COLLÉGIALITÉ - [120h Internship]	B1	TA	-	-	[+]	9
GEOG0270-2	<i>Special issues on GIS</i> - Roland BILLEN, JeanPaul DONNAY	B1	Q2	20	30	-	4
GEOG0271-2	<i>Special issues on spatial data acquisition</i> - Roland BILLEN, Yves CORNET	B1	Q1	15	15	-	2
GEOG0038-1	<i>Space geodesy</i> - René WARNANT - [1d FW]	B1	Q2	20	-	[+]	2
GEOG0618-1	<i>Real estate markets</i> - JeanMarie HALLEUX	B1	Q1	15	15	-	3
GCIV0626-1	<i>Constructions : materials and pathologies</i> - Luc COURARD	B1	Q1	40	10	-	5

### Compulsory courses (B1 : 30Cr)

#### Core courses common to the study paths

GEOG0025-1	<i>Introduction to research</i> - JeanPaul DONNAY	B1	Q1	10	10	-	2
GEOG0007-1	<i>Thesis supervision and seminars</i> - COLLÉGIALITÉ	B1	TA	-	-	-	2
SMEM0002-1	<i>Final thesis</i> - COLLÉGIALITÉ	B1	TA	-	-	-	20

#### Courses specific to the Study Path

GEST3770-1	<i>Quality management</i> - N...	B1	Q1	20	10	-	3
GEOG0650-2	<i>Impact studies</i> - Guénaël DEVILLET	B1	Q2	10	20	-	3