

#### Block view of the study programme

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#### Block 1

##### Compulsory courses

##### Core courses common to the study paths

GEOG0650-2	<i>Impact studies</i> - Guénaël DEVILLET	Q2	10	20	-	3
GEOG0042-2	<i>Geomorphic challenges in a changing world</i> (english language) - Matthias VANMAERCKE	Q2	10	20	-	3
GEOG2028-1	<i>Introduction to spatial planning</i> - JeanMarie HALLEUX - [1d FW]	Q1	15	15	[+]	3
GEOG0057-1	<i>Operational GIS</i> - N... - Suppl : Pierre HALLOT, Adrien MICHEZ	Q1	30	30	-	5

##### Courses specific to the Study Path

GEOG0037-1	<i>Global Navigation Satellite Systems</i> - René WARNANT	Q1	40	15	-	5
GEOG0626-1	<i>Theory of errors</i> - René WARNANT	Q1	20	30	-	5
GEOG0060-1	<i>Remote sensing</i> - N... - Suppl : Bernard TYCHON	Q1	25	25	-	5
GEOG0053-1	<i>Topography</i> - Part A - Roland BILLEN - Part B - Roland BILLEN, N... - Suppl : Florent POUX - [1d FW]	Q1	20 10	10 5	- [+]	5
GEOG0059-1	<i>Geographical information systems</i> - N... - Suppl : Roland BILLEN, JeanPaul KASPRZYK	Q1	30	30	-	5
GEOG0062-1	<i>Geovisualization</i> - Pierre HALLOT	Q2	30	30	-	5

Students from the Bachelor in Geography: general, who have already followed some of the courses, may, with the Jury's agreement, follow alternative courses in the Université of Liège course programme for the same number of credits.

#### Optional courses

##### Choose one focus from the following :

##### Professional focus in land surveyor

DROI8041-3	<i>Property law</i> - <i>Founding principles</i> - Pascale LECOCQ - <i>Practical case</i> - Pascale LECOCQ - Suppl : Elisabeth JADOUL	Q2	32 13	- -	- -	5
GEOG0645-1	<i>Professional practices : the geometrist</i> - Roland BILLEN	Q2	20	10	-	3
GEOG0071-1	<i>Complement of topography</i> - Roland BILLEN	Q2	10	15	-	2
GEOG0267-1	<i>Land Administration</i> - Roland BILLEN, JeanMarie HALLEUX - [1d FW]	Q2	15	15	[+]	3
GEOG0618-1	<i>Real estate markets</i> - JeanMarie HALLEUX	Q2	15	15	-	3

##### Professional focus in geodata expert

INFO0009-2	<i>Database (general organisation)</i> - Samuel HIARD - [25h Proj.]	Q2	26	26	[+]	5
INFO0902-1	<i>Data structures and algorithms</i> - Pierre GEURTS - [40h Proj.]	Q2	26	20	[+]	6
INFO0062-1	<i>Object-oriented programming</i> (english language) - Bernard BOIGELOT - [20h Proj.]	Q2	25	20	[+]	5

Students who have already taken certain courses shall choose alternative courses in the University of Liège's course programme, with the jury's approval, for the same number of credits.

#### Block 2

##### Compulsory courses

##### Core courses common to the study paths

SSTG0061-1	<i>Internship</i> - COLLÉGIALITÉ - [6w Internship]	TA	-	-	[+]	<b>6</b>
SMEM0043-1	<i>Final thesis</i> - COLLÉGIALITÉ	TA	-	-	-	<b>20</b>

#### Optional courses

##### Courses specific to the Study Path

In agreement with the Jury, choose one or two module(s) for a total of 20 credits from: (exceptionally and in a duly justified manner, the student may choose one or more courses in another module)

##### "Geomatics applied to civil engineering" module

GCIV0620-2	<i>Introduction to geotechnics, Part A</i> - Robert CHARLIER - [1d FW]	Q1	20	10	[+]	<b>3</b>
GCIV0626-1	<i>Constructions : materials and pathologies</i> - Shady ATTIA, Roland BILLEN, Luc COURARD - [1d FW]	Q1	40	20	[+]	<b>7</b>
GCIV0621-1	<i>Urban and environmental hydraulics</i> - Pierre ARCHAMBEAU, Michel PIROTON	Q2	25	15	-	<b>4</b>
GEOG2038-1	<i>Roadway and diverse networks</i> - Pierre ARCHAMBEAU, Roland BILLEN, Robert CHARLIER - [40h Proj.]	Q2	5	15	[+]	<b>6</b>

##### "3D Reconstruction" module

GEOG0063-1	<i>3D Acquisition</i> - N... - Suppl : Florent POUX - [0,5d FW]	Q1	10	20	[+]	<b>2</b>
GEOG0064-1	<i>3D Recognition &amp; Understanding</i> - N... - Suppl : Florent POUX	Q1	20	25	-	<b>3</b>
GEOG0065-1	<i>Immersive 3D Environment</i> - N... - Suppl : Florent POUX - [40h Proj.]	Q2	10	15	[+]	<b>5</b>

##### "GNSS" module

GEOG0038-1	<i>Advanced GNSS</i> - René WARNANT	Q1	25	30	-	<b>5</b>
GEOG0066-1	<i>GNSS project</i> - René WARNANT - [60h Proj.]	Q2	5	10	[+]	<b>5</b>

##### "Remote Sensing" module

ENVT3060-1	<i>Very high resolution remote sensing applied to the management of natural environments</i> - Philippe LEJEUNE	Q1	18	36	-	<b>5</b>
GEOG0067-1	<i>Remote sensing project</i> - Philippe LEJEUNE, N... - Suppl : Adrien MICHEZ - [80h Proj.]	Q2	-	-	[+]	<b>5</b>

#### Follow-up to the focus :

##### Professional focus in land surveyor

SPOL2209-3	<i>Environmental and land policies</i> - Sophie HANSON	Q1	30	-	-	<b>2</b>
GEOG0068-1	<i>"Geometrist" integrated project</i> - N... - Suppl : Florent POUX - [8d FW]	Q1	20	5	[+]	<b>10</b>
GEOG2039-1	<i>Advanced topometry</i> - Roland BILLEN	Q2	10	15	-	<b>2</b>

##### Professional focus in geodata expert

INFO8006-1	<i>Introduction to artificial intelligence (english language)</i> - Gilles LOUPPE - [45h Proj.]	Q1	25	20	[+]	<b>5</b>
GEOG0069-1	<i>Advanced GIS</i> - N... - Suppl : Roland BILLEN, Pierre HALLOT, JeanPaul KASPRZYK	Q1	30	30	-	<b>4</b>
GEOG0070-1	<i>GIS project</i> - N... - Suppl : JeanPaul KASPRZYK - [80h Proj.]	Q2	-	-	[+]	<b>5</b>

Students who have already taken certain courses shall choose alternative courses in the University of Liège's course programme, with the jury's approval, for the same number of credits.

#### Bloc d'aménagement du programme de l'année

### Additional ECTS Master in geography: geomatics (120 ECTS)

#### Optional courses

Depending on the student's prior education and with the agreement of the Jury, choose, if necessary, courses for a maximum of 60 credits from the list below, the Bachelor in Geographic Sciences programme, general, or the programme of another field of study at ULiège.

INFO0201-1	<i>Introduction to computer programming</i> - Peter SCHLAGHECK	Q2	20	40	-	<b>5</b>
MATH0509-1	<i>General mathematics I</i> - - Suppl : Pierre MATHONET	Q1	25	30	-	<b>6</b>
MATH0009-6	<i>General mathematics II, 1st part</i> - Françoise BASTIN	Q2	15	15	-	<b>3</b>
STAT0807-1	<i>Descriptive statistics</i> - Arnout VAN MESSEM - Suppl : Gentiane HAESBROECK	Q1	10	10	-	<b>2</b>
STAT0808-1	<i>Inferential statistics</i> - Amir ABOUBACAR	Q1	20	20	-	<b>4</b>
STAT0750-1	<i>Multivariate statistical analysis (software R)</i> - Arnout VAN MESSEM	Q2	10	10	-	<b>2</b>
PHYS0985-1	<i>General physics I</i> - Philippe GHOSEZ	Q2	45	40	-	<b>8</b>
PHYS0986-1	<i>General physics II</i> - Alejandro SILHANEK	Q1	45	35	-	<b>6</b>
[...]	Bachelor in geography: general courses					
[...]	course from a programme in another field of education					