

## Two-Year Master Program (120 ECTS)

Access conditions to the Master

([http://www.ulg.ac.be/cms/c\\_46115/master-en-sciences-geographiques-orientation-climatologie](http://www.ulg.ac.be/cms/c_46115/master-en-sciences-geographiques-orientation-climatologie))

### First Year

Core courses common to the study paths

#### Compulsory courses

GEOG0238-1	<i>Geographical Information Systems</i> - JeanPaul DONNAY	30	30	-	<b>6</b>
SPOL2209-3	<i>Environmental and land policies</i> - Quentin MICHEL - Suppl : Sophie HANSON	30	-	-	<b>3</b>
GEOG0605-1	<i>Regional geography and geomorphology</i> - François PETIT - [4d FW]	20	-	[+]	<b>3</b>
GEOG0622-1	<i>Project management</i> - JeanPaul DONNAY	10	10	-	<b>2</b>

Courses specific to the Study Path

#### Compulsory courses

CLIM0002-1	<i>Climate models : principles and applications</i> - Louis FRANÇOIS	45	15	-	<b>6</b>
CLIM0003-3	<i>Climate changes and impacts</i> - Louis FRANÇOIS	15	45	-	<b>5</b>
CLIM0004-1	<i>Zonal climatology</i> - Michel ERPICUM	15	30	-	<b>4</b>
CLIM0014-1	<i>Programming in service of climatology (part 1)</i> - Xavier FETTWEIS	15	30	-	<b>4</b>
ENVT0877-1	<i>Basis of Agrometeorology</i> - Bernard TYCHON	15	15	-	<b>3</b>
GEOG0607-4	<i>Topoclimatology</i> - Michel ERPICUM - [3d FW]	15	15	[+]	<b>4</b>
MATH0221-4	<i>Analysis of time series</i> - Pierre MAGAIN, Guy MUNHOVEN	15	15	-	<b>3</b>
OCEA0014-1	<i>Mathematical analysis and modelling methods applied to the environment</i> - Eric DELHEZ	20	20	-	<b>4</b>
PHYS0209-2	<i>Numerical methods in physics</i> - Alejandro SILHANEK	15	20	-	<b>4</b>
SPAT0024-2	<i>Meteorology</i> - Louis FRANÇOIS	40	20	-	<b>6</b>
GEOG0630-5	<i>Climatic geomorphology</i> - Aurelia HUBERT - [4d FW]	15	5	[+]	<b>3</b>

Students who have already taken the cours *Numerical methods in physics* must choose, with the approval of the Board of Studies, one course totaling 4 ECTS not already taken in the 3rd year of Bachelor or in one of the programmes of Master in Geography.

### Second year

Core courses common to the study paths

#### Compulsory courses

GEOG0025-1	<i>Research Design in Spatial Sciences</i> - JeanPaul DONNAY	10	10	-	<b>2</b>
GEOG0646-1	<i>Seminars</i> - COLLÉGIALITÉ	-	-	-	<b>2</b>

Notice : Collegiality = Climatology Team

GEOG0007-1	<i>Thesis supervision and seminars</i> - COLLÉGIALITÉ	-	-	-	<b>3</b>
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SMEM0033-1	<i>Final thesis</i> - COLLÉGIALITÉ	-	-	-	<b>20</b>
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Courses specific to the Study Path

#### Compulsory course

CLIM0011-1	<i>Energy and territories</i> - Bernadette MERENNESCHOUMAKER - [1d Mon. WS]	15	15	[+]	<b>3</b>
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### Research Focus

#### Compulsory courses

CLIM0005-1	<i>Operational meteorology</i> - COLLÉGIALITÉ - [18d SEM]	-	-	[+]	<b>7</b>
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Notice : Collegiality = Royal Military School and Meteorological Wing

CLIM0001-1	<i>Applied climatology</i> - Michel ERPICUM - [1d FW]	20	10	[+]	<b>3</b>
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CLIM0015-1	<i>Programming in service of climatology (part 2)</i> - Xavier FETTWEIS	15	30	-	<b>4</b>
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CLIM0016-1 *Remote sensing applied to climatology* - Nicolas CLERBAUX 20 10 - 3

**Optional courses**

**Choose one module from :**

**Environmental and applied climatology**

GEOG0630-4	<i>Climatic geomorphology</i> - Aurelia HUBERT - [4d FW]	20	-	[+]	3
GEOG0633-1	<i>Rivers dynamics</i> - François PETIT - [2d FW]	15	15	[+]	3
ENVT0879-2	<i>Applied agrometeorology</i> - Bernard TYCHON - [1d FW]	45	15	[+]	5
ENVT0881-1	<i>Environmental degradation and desertification</i> - Pierre OZER	20	-	-	2

**Climate modeling**

CLIM0017-1	<i>Climate modelling</i>				7
	- <i>Part 1 : Atmosphere</i> - Xavier FETTWEIS	10	20	-	
	- <i>Part 2 : Vegetation-climate interaction</i> - Louis FRANÇOIS	15	25	-	
CLIM0009-1	<i>Biogeochemical cycle modelling and global changes</i> - Louis FRANÇOIS	20	20	-	3
OCEA0010-2	<i>Physical Oceanography</i> - JeanMarie BECKERS	20	10	-	3

**Research focus (2013-2014 prospects)**

**Compulsory courses**

CLIM0005-1	<i>Operational meteorology</i> - COLLÉGIALITÉ - [18d SEM]	-	-	[+]	7
	<i>Notice</i> : Collegiality = Royal Military School and Meteorological Wing				
CLIM0001-1	<i>Applied climatology</i> - Michel ERPICUM - [1d FW]	20	10	[+]	3
CLIM0015-1	<i>Programming in service of climatology (part 2)</i> - Xavier FETTWEIS	15	30	-	4
CLIM0016-1	<i>Remote sensing applied to climatology</i> - Nicolas CLERBAUX	20	10	-	3
CLIM0007-2	<i>Greenhouse gases - Measures and instruments to mitigate climate change</i> - N... - [1d FW]	30	-	[+]	3

**Optional courses**

**Choose one module from :**

**Environmental and applied climatology**

GEOG0633-1	<i>Rivers dynamics</i> - François PETIT - [2d FW]	15	15	[+]	3
ENVT0879-2	<i>Applied agrometeorology</i> - Bernard TYCHON - [1d FW]	45	15	[+]	5
ENVT0881-1	<i>Environmental degradation and desertification</i> - Pierre OZER	20	-	-	2

**Climate modeling**

CLIM0017-2	<i>Modélisation du climat</i>				7
	- <i>Part 1 : Atmosphere</i> - Xavier FETTWEIS	10	20	-	
	- <i>Partim 2 : Végétation et cycle du carbone</i>	15	25	-	
OCEA0010-2	<i>Physical Oceanography</i> - JeanMarie BECKERS	20	10	-	3