

## Two-year master program

### First Year

#### Common core courses

All year round

#### Compulsory courses

STAT1207-1	<i>Applied statistics</i> - Yves BROSTAUX	TA	30	30	-	5
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#### Optional courses

Courses to be chosen according to the level test

LANG2962-1	<i>English language : level 2</i> - Sophie DEPOTERRE, Estelle MAYARD - [48h E-Lrng]	TA	-	24	[+]	4
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LANG2966-1	<i>English language : level 3</i> (english language) - Ingrid BERTRAND	TA	-	48	-	4
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First semester

#### Compulsory courses

GEST3015-1	<i>Quality management</i> - Marianne SINDIC - [6h SEM]	Q1	18	-	[+]	2
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Second semester

#### Compulsory courses

GEST3028-2	<i>Accounting and management</i> - Thomas DOGOT, Philippe LEBAILLY	Q2	24	24	-	4
RSTG0006-1	<i>Internship and professional relations</i> - COLLÉGIALITÉ		-	-	-	12

#### Optional courses

[...] Choose courses from the programme of the 1st and 2nd Master in bioengineering totalling 33 ECTS, with the approval of the President of the Jury

### Second year

#### Common core courses

First semester

#### Compulsory courses

DOCU0449-3	<i>Scientific literature and information literacy</i> - Bernard POCHE - [14h AUTR]	Q2	4	6	[+]	2
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Second semester

#### Compulsory courses

RTFE0013-1	<i>Final work</i> - COLLÉGIALITÉ		-	-	-	18
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[...] Choose courses, with the approval of the President of the Jury, totalling minimum 10 ECTS from the following list

- \* 1st and 2nd year courses in the master in bioengineering in subjects related to the field of speciality;
- \* Master-level courses from another of the ULg's faculties in subjects related to the field;
- \* Bibliographical studies and preparation for final thesis.

#### Professional focus on microbial biotechnology

Microbial biotechnologies

#### Compulsory courses

**Approach per subject**

BIOT0002-1	<i>Biopharmaceutical applications</i> - Frank DELVIGNE, Patrick FICKERS	-	-	-	<b>3</b>
BIOT0003-1	<i>Agro-alimentary applications</i> - Frank DELVIGNE, Patrick FICKERS	-	-	-	<b>3</b>
BIOT0004-1	<i>Bioenergy applications</i> - N..., N...	-	-	-	<b>3</b>
BIOT0005-1	<i>Environmental applications</i> - Frank DELVIGNE, Patrick FICKERS	-	-	-	<b>3</b>
BIOT0006-1	<i>Green chemistry applications</i> - N..., N...	-	-	-	<b>4</b>

**Approach per project: solving industrial problems**

BIOT0007-1	<i>Project</i> - Frank DELVIGNE, Patrick FICKERS, Philippe JACQUES	-	-	-	<b>6</b>
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**Module of ex cathedra course and conference**

BIOT0008-1	<i>Introduction to bioprocess dimensioning</i> - Frank DELVIGNE, Philippe JACQUES	-	-	-	<b>4</b>
BIOT0009-1	<i>Seminar and latest developments</i> - Frank DELVIGNE, N..., N...	-	-	-	<b>4</b>

**Professional focus in xylochemistry and bio-refining**

All year round

**Compulsory courses**

GESA0015-1	<i>Waste recovery : latest developments</i> - N... - [20h SEM]	20	20	[+]	<b>5</b>
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First semester

**Compulsory courses**

GBLX0054-1	<i>Processes of biorefinery and white biotechnology</i> - Aurore RICHEL - [6h SEM, Q1 8h FT]	4	6	[+]	<b>2</b>	
CHIM9247-1	<i>Industrial chemical processes engineering</i> - Aurore RICHEL	Q1	12	12	-	<b>2</b>
BIOL2017-5	<i>Biological chemistry</i> - Aurore RICHEL	Q1	12	12	-	<b>2</b>
GESA0014-1	<i>Life cycle analysis</i> - Sandra BELBOOM, Angélique LÉONARD	Q1	12	12	-	<b>2</b>

Second semester

**Compulsory courses**

CHIM0683-2	<i>Green chemistry</i> - Aurore RICHEL	Q1	12	-	-	<b>2</b>
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Semester to define

**Compulsory courses**

FORE0037-1	<i>Physico-chemical characteristics and timber properties</i> - Valérie GILBERT	-	-	-	<b>3</b>
FORE0038-1	<i>Principles of industrial wood processing</i> - Valérie GILBERT	-	-	-	<b>3</b>
FORE0039-1	<i>Products and techniques for the preservation of wood</i> - N...	-	-	-	<b>2</b>
FORE0040-1	<i>Biomass-energy, ligniculture</i> - Valérie GILBERT	-	-	-	<b>2</b>
BIOC2000-1	<i>Industrial processes of purification</i> - N...	13	-	-	<b>2</b>
ENVT3052-1	<i>European regulation, environmental standards</i> - N...	-	-	-	<b>3</b>

**Research Focus**

**Compulsory courses**

**All year round**

DOCU0451-1	<i>Literature seminar</i> - N...	-	-	-	<b>8</b>
DOCU0452-1	<i>Quality systems and their systems of reference in terms of research</i> - Marianne SINDIC	TA	-	-	<b>2</b>
LANG0907-2	<i>English language : scientific communication</i> - Sophie DEPOTERRE, Estelle MAYARD	TA	-	36	<b>4</b>
DOCU0453-1	<i>Study and design of a research project</i> - MarieLaure FAUCONNIER, Hélène SOYEURT	-	-	-	<b>6</b>

[...]

Classes for a total of 10 credits to be chosen from the 1st and 2nd year Masters in Bioengineering programme from subjects relating to the field, in agreement with the President of the Jury