

At Louvain-la-Neuve - 120 credits - 2 years - Day schedule - In French

Dissertation/Graduation Project : **YES** - Internship : **optional**

Activities in English: **YES** - Activities in other languages : **NO**

Activities on other sites : **YES**

Main study domain : **Sciences**

Organized by: **Faculty of Science (SC)**

Programme acronym: **BSTA2M** - Francophone Certification Framework: 7

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BSTA2M - Teaching profile

Learning outcomes

On successful completion of this programme, each student is able to :

1. Maîtriser un socle fondamental de la probabilité et de la statistique.

1.1

Maîtriser les calculs mathématiques fondamentaux.

1.2

Résumer un texte de méthodologie statistique et situer les limites de ses connaissances face à un problème donné.

1.3

Utiliser les outils fondamentaux de calcul et de programmation dans des problèmes de probabilité et statistique.

1.4

Reconnaître les concepts fondamentaux et transversaux d'importantes théories de probabilité et statistique actuelles et établir les liens principaux entre ces théories.

1.5

Expliquer des théories de probabilité et statistique en motivant les énoncés et les définitions par des exemples et des contre-exemples et en mettant en évidence les idées principales.

1.6

Relier des concepts de probabilité et de statistique et des problématiques associées à leur contexte historique en ayant compris le rôle de ces outils en science.

2.

S'exprimer de façon claire, précise et rigoureuse dans les activités de communication tant en français que en anglais (niveau B1 [Ccise et7utiop6 0 t0c.11106.lit-1 0 348.36300659 \)ience.1.1](#))

of 5 credits. These extra-curricular courses must be relevant, of a sufficient level and adapted to the profile of the program and of the student.

The student prepares his program in consultation with a study advisor, then submits it to the jury for approval.

For a typical program, this master will count, regardless of the options and / or elective courses selected, a minimum of 120 credits spread over two annual blocks corresponding to a minimum of 60 credits each.

BSTA2M Programme

Detailed programme by subject

CORE COURSES

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PROFESSIONAL FOCUS [30.0]

La finalité spécialisée comprend le mémoire, l'UE de base en statistique du biostatisticien et une UE en statistique appliquée.

- Mandatory
- ⊗ Optional
- △ Not offered in 2024-2025
- ⊖ Not offered in 2024-2025 but offered the following year
- ⊕ Offered in 2024-2025 but not the following year
- △ ⊕ Not offered in 2024-2025 or the following year
- Activity with requisites
- 🌐 Open to incoming exchange students
- 🚫 Not open to incoming exchange students
- (FR) Teaching language (FR, EN, ES, NL, DE, ...)

Click on the course title to see detailed informations (objectives, methods, evaluation...)

Year

1 2

o Content:**o Cours obligatoires de la finalité**

○ LSTAT2828	memory in biostatistics		(FR) [q1 or q2] [] [20 Credits] 🌐		x
○ LSTAT2330	Statistics in clinical trials.	Catherine Legrand Annie Robert	(FR) [q2] [22.5h+7.5h] [5 Credits] 🌐		x

o Cours au choix de la finalité

L'étudiant choisit obligatoirement une unité d'enseignement parmi les deux suivantes. L'étudiant qui désire inclure les deux unités d'enseignement à son programme ajoute l'autre dans le tronc commun.

⊗ LSTAT2930	Training course or work of application in biostatistics ■		(FR) [q1 or q2] [] [5 Credits] 🌐		
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OPTIONS

The student completes his program by choosing teaching units in the options and respecting the instructions of each option.

If the student chooses 15 or more credits in an option (including compulsory courses), this option will appear on the appendix of his diploma.

BIOMÉTRIE, TECHNOMÉTRIE ET BIOINFORMATIQUE

o

Supplementary classes

To access this Master, students must have a good command of certain subjects. If this is not the case, in the first annual block of their Masters programme, students must take supplementary classes chosen by the faculty to satisfy course prerequisites.

The complementary module to the Master's degree in Statistics, Biostatistics Orientation aims to prepare a student who does not have

BSTA2M - Information

Access Requirements

Master course admission requirements are defined by the French Community of Belgium Decree of 7 November 2013 defining the higher education landscape and the academic organisation of courses.

General and specific admission requirements for this programme must be satisfied at the time of enrolling at the university.

Unless explicitly mentioned, the bachelor's, master's and licentiate degrees listed in this table or on this page are to be understood as those issued by an institution of the French, Flemish or German-speaking Community, or by the Royal Military Academy.

In the event of the divergence between the different linguistic versions of the present conditions, the French version shall prevail.

SUMMARY

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- > [Specific access requirements](#)
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Specific access requirements

En plus de remplir les conditions d'accès décrites ci-dessous, les candidats devront apporter la preuve d'une maîtrise suffisante de la langue française (niveau B1 du [Cadre européen commun de référence](#))

Students who wish to be admitted on the basis of a dossier (see tables below) are invited to consult the [criteria for the evaluation of application](#).

University Bachelors

Diploma	Special Requirements	Access	Remarks
UCLouvain Bachelors			
Bachelor in Bioengineering		Direct access	
Tous les bacheliers	If student has succeeded Minor in Statistics, Actuarial Sciences and Data Sciences and LBIO1110 , LBIO1111 , LIEPR1004 .	Direct access	In some cases, the UCLouvain Enrolment Office, after reviewing their online enrolment or re-enrolment application, will ask the students concerned to provide an enrolment authorisation from the faculty/ school.
Bachelor in Biology Bachelor in Biomedicine Bachelor in Medecine Bachelor in Pharmacy Bachelor in Dentistry Bachelor in Motor skills : General Bachelor in Physiotherapy and Rehabilitation	Supplementary classes: LSTAT2011 , LSTAT2012 , LSTAT2013 .	Access based on application	
Bachelor : Business Engineering (Louvain-la-Neuve) Bachelor : Business Engineering (Mons) Bachelor in Economics and Management Bachelor in Engineering	Supplementary classes: LBIO1110 , LBIO1111 ou LIEPR1004A	Access based on application	

Bachelor in Computer Science (Louvain-la-Neuve) Bachelor in Computer Science (Charleroi) Bachelor in Mathematics Bachelor in Physics		
Tous les autres bacheliers	If the student did not succeed Minor in Statistics, Actuarial Sciences and Data Sciences and LFSAB1221, supplementary classes: - LBIO1110 , LBIO1111 or LIEPR1004A - and/or LSTAT2011 , LSTAT2012 , LSTAT2013	Access based on application

Others Bachelors of the French speaking Community of Belgium

Bachelier en sciences de l'ingénieur, orientation bioingénieur		Direct access
Bachelier en sciences biologiques Bachelier en sciences biomédicales Bachelier en sciences de l'ingénieur, orientation bioingénieur	Supplementary classes: LSTAT2011 , LSTAT2012 , LSTAT2013	Access based on application
Bachelier en ingénieur de gestion Bachelier en sciences économiques et de gestion Bachelier en sciences de l'ingénieur, orientation ingénieur civil Bachelier en sciences informatiques Bachelier en sciences mathématiques Bachelier en sciences physiques	Supplementary classes: LBIO1110 , LBIO1111 ou LIEPR1004A	Access based on application
Tout autre bachelier	Supplementary classes: - LBIO1110 , LBIO1111 or LIEPR1004A - and/or LSTAT2011 , LSTAT2012 , LSTAT2013	Access based on application

Bachelors of the Dutch speaking Community of Belgium

Bachelier en sciences de l'ingénieur, orientation bioingénieur		Direct access
Bachelier en sciences biologiques Bachelier en sciences biomédicales Bachelier en sciences de l'ingénieur, orientation bioingénieur	Supplementary classes: LSTAT2011 , LSTAT2012 , LSTAT2013	Access based on application
Bachelier en ingénieur de gestion Bachelier en sciences économiques et de gestion Bachelier en sciences de l'ingénieur, orientation ingénieur civil Bachelier en sciences informatiques Bachelier en sciences mathématiques Bachelier en sciences physiques	Supplementary classes: LBIO1110 , LBIO1111 ou LIEPR1004A	Access based on application

Tous les autres bacheliers	Supplementary classes: - LBIO1110, LBIO1111 or LIEPR1004A - and/or LSTAT2011, LSTAT2012, LSTAT2013	Access based on application
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Foreign Bachelors

Tous les bacheliers	Supplementary classes: - LBIO1110, LBIO1111 or LIEPR1004A - and/or LSTAT2011, LSTAT2012, LSTAT2013	Access based on application
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Non university Bachelors

> Find out more about [links](#) to the university

Diploma

Licenciés belges de la
communauté française:

Bioingénieur

Ingénieur civil (sauf ingénieur
civil architecte)

sciences mathématiques

[LBIO1110](#), [LBIO1111](#) or
[LIEPR1004A](#) is supplementary
classes for students who have
not taken an equivalent course.

Direct access

Admission and Enrolment Procedures for general registration

The student contacts the LSBA secretariat if a faculty authorization has been requested by the registration service. The student then establishes his program with the study consultant of the purpose concerned (<https://uclouvain.be/fr/facultes/sc/infos-lsba.html>).

Teaching method

Most of the teaching units applied statistics methods & tools include practical work on computers and an application project involved in the evaluation. This approach allows the student to systematically implement the tools presented in the methodological presentations and thus be prepared for field work. The implementation of projects also fosters a stimulating and friendly spirit of collaboration among the students in the program. The program offers the possibility of an internship in a company or in a research laboratory that will eventually complete the methodological aspects of the thesis. Most of the teaching units provided by statistical teachers are available on moodle or on the LSBA website. Some specialized teaching units are given by professors from companies and/or in English in order to familiarize the student with this language commonly used in the field of statistics.

Evaluation

The evaluation methods comply with the [regulations concerning studies and exams](#). More detailed explanation of the modalities specific to each learning unit are available on their description sheets under the heading "Learning outcomes evaluation method".

Each course in the programme involves an oral or written examination. There may also be a project leading to a report which will form part of the assessment. The work placement (or work involving statistical application) and the dissertation both involve the production of a document to be defended in an oral examination with an examination board.

Mobility and/or Internationalisation outlook

Students who have achieved outstanding results in the first annual block will be allowed to participate in international exchange programs organized by the LSBA. Currently, bilateral exchange agreements are being established with several partners in and outside Europe.

Students interested in participating in an international exchange program are invited to contact the person responsible for them in the Faculty of Science or the contact person in the LSBA.

Detailed information on <https://uclouvain.be/fr/facultes/sc/programmes-d-echange-d-etudiants.html>

Contacts
