UCL Study programme 2025 - 2026

Approfondissement en statistique et sciences des données

The version you're consulting is not definitive. This programme still may change. The final version will be published on 1th June.

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Introduction

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Programme

DETAILED PROGRAMME BY SUBJECT

- Mandatory
- Optional
- Not offered in 2025-2026
- Not offered in 2025-2026 but offered the following year
- Offered in 2025-2026 but not the following year
- Not offered in 2025-2026 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...)

Content:

30 crédits
Tous les cours sont optionnels.
Le module 1 (Statistique) est obligatoire, les autres sont optionnels.

Module 1 (Statistique)

Préalable pour ces cours : la matière du cours LMAT1271 "Calcul des probabilités et analyse statistique".
L'étudiant choisit maximum une UE entre LSTAT2120 et LBIRA2101, ainsi qu'entre LINGE1222 et LSTAT2100.
Les cours LPSP1209 - LPSP1306 doivent être suivis dans cet ordre.

				Year 2	Year 3
LINGE1222	Multivariate Statistical Analysis [M]		FR [q2] [30h+15h] [4 Credits]	x	x
LSTAT2020	Statistical softwares and basic statistical programming		FR [q1] [15h+15h] [4 Credits]	x	x
LSTAT2190	Concepts and treatment of random vectors		FR [q1] [15h+7.5h] [4 Credits]	x	x
LSTAT2110	Data Analysis		FR [q1] [30h+7.5h] [5 Credits]	x	x
LSTAT2120	Linear models	Christian Hafner	EN [q1] [30h+7.5h] [5 Credits] > *French-friendly*	x	x
LSTAT2130	Introduction to Bayesian statistics		EN [q2] [22.5h+7.5h] [5 Credits]	x	x
LSTAT2200	Survey and Sampling		FR [q2] [15h+5h] [4 Credits]	x	x
LSTAT2310	Statistical quality control.		FR [q1] [15h+5h] [4 Credits] > *English-friendly*	x	x
LSTAT2320	Design of experiment. [M]		FR [q2] [30h+10h] [5 Credits] > *English-friendly*	x	x
LSTAT2330	Statistics in clinical trials.		FR [q2] [22.5h+7.5h] [5 Credits]	x	x
LBIRA2110A	Statistical analysis of multivariate data - Biometrics 1		FR [q1] [22.5h+15h] [3 Credits] > *English-friendly*	x	x
LPSP1306	Statistics: descriptive analysis and GLM multivariate data modeling		FR [q2] [30h+15h] [4 Credits]	x	x

Module 0 (Base)

L'étudiant choisit maximum une UE parmi LINFO1101 et LINGE1225.

From 0 to 10credit(s)

				Year 2	Year 3
LINFO1101	Introduction to programming	Kim Mens Siegfried Nijssen Charles Pecheur	FR [q1] [30h+30h] [5 Credits]	x	x

				Year 2	3
⊠ LINGE1225	Programming in Economics and Management [M]	Marco Saerens	FR [q1] [30h+22.5h] [4 Credits]	x	x
⊠ LMAFY1101	Data exploration and introduction to statiscal inference	Anouar El Ghouch	FR [q2] [30h+30h] [5 Credits]	x	x
⊠ LPSP1209	Statistics, inference on one or two variables		FR [q1] [22.5h+15h] [4 Credits]	x	x

⊠ Module 2 (Informatique)

Préalable pour ces cours : LINFO1102 ou LINGE1225

Les cours LEPL1402 - LINFO1121 doivent être suivis dans cet ordre ; idem pour LDATS2360 - LDATS2370.

Maximum 10 credit(s)

⊠ LEPL1104	Numerical methods	Vincent Legat	FR [q2] [30h+30h] [5 Credits]	x	x
⊠ LEPL1402	Informatics 2		FR [q1] [30h+30h] [5 Credits]	x	x
⊠ LINFO1121	Algorithms and data structures		FR [q1] [30h+30h] [5 Credits]	x	x
⊠ LDATS2360	Seminar in data management: basic		FR [q1] [15h+10h] [4 Credits]	x	x
⊠ LINMA1702	Optimization models and methods I		FR [q2] [30h+22.5h] [5 Credits]	x	x

⊠ Module 3 (Biologie)

L'étudiant choisit maximum un cours parmi:

⊠ LBIO1110	Life : diversity and evolution		FR [q1] [30h+10h] [4 Credits]	x	x
⊠ LBIO1111	Cell and molecular biology	Patrick Dumont Charles Hachez	FR [q1] [30h+20h] [5 Credits]	x	x
⊠ LFSM1104A	Biologie cellulaire et éléments d'histologie (partim A FSA)		FR [q2] [45h] [4 Credits]	x	x

THE PROGRAMME'S COURSES AND LEARNING OUTCOMES

For each UCLouvain training programme, a reference framework of learning outcomes specifies the the skills expected of every graduate on completion of the programme. Course unit descriptions specify targeted learning outcomes, as well as the unit's contribution to reference framework of learning outcomes.

APPSTAT - Information

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".

Possible trainings at the end of the programme

Les étudiants ayant réalisés cette mineure d'approfondissement en statistique et sciences des données ont un accès direct au Master en Statistique. Les cours de Master suivi dans cette mineure ne pourront pas être valorisés lors de la réalisation du Master en Statistique, et seront donc remplacé par d'autres cours plus approfondi permettant ainsi aux étudiants accédant au Master en Statistique après cette mineure d'élargir et approfondir leurs connaissances dans ce domaine.

De plus les étudiants ayant réalisés cette mineure et ayant acquis, soit via cette mineure soit via leur cours à option, les prérequis nécessaires en informatiques auront un accès direct pour le Master en Data Sciences, orientation statistique.

Contacts

Curriculum Management

Entity

Structure entity	SST/SC/LSBA
Denomination	(LSBA)
Faculty	Faculty of Science (SC)
Sector	Sciences and Technology (SST)
Acronym	LSBA
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Academic supervisor: Laura Symul

Useful Contact(s)

- Secretary of The Louvain School of Statistics, Biostatistics and Actuarial Sciences: Sophie Malali