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MINSTAT - Introduction

Introduction

MINSTAT - Teaching profile

Learning outcomes

Aims of the course in terms of skills: the minor aims to allow the student to acquire basic skills in applied statistics which are of use in his/her specialist subject or help him/her prepare for a Master's in Statistics.

Programme

DETAILED PROGRAMME BY SUBJECT

- Mandatory
- ⊗ Optional
- △ Not offered in 2021-2022
- ⊖ Not offered in 2021-2022 but offered the following year
- ⊕ Offered in 2021-2022 but not the following year
- △ ⊕ Not offered in 2021-2022 or the following year
- Activity with requisites
- (FR) Teaching language (FR, EN, ES, NL, DE, ...)

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

30 crédits

Year
2 3

Content:

Module 1 (cours de base en mathématique)

⊗ Bloc 1

○ LMAT1101	Mathematics 1	Pedro Dos Santos Santana Forte Vaz	FR [q1] [30h+20h] [4 Credits]	X	X
○ LMAT1102	Mathematics 2	Augusto Ponce	FR [q2] [30h+30h] [4 Credits]	X	X

⊗ Bloc 2

○ LECGE1112	Mathematics in economy and management	Pascal Lambrechts Mathieu Van Vyve	FR [q1] [45h+30h] [6 Credits]	X	X
○ LECGE1230	Mathematics in Economics and Management II	Maria del Carmen Camacho Pérez Pieter Klaessens	FR [q1] [45h+30h] [6 Credits]	X	X

⊗ Bloc 3

○ LINGE1114	Mathematics I: analysis	Heiner Olbermann	FR [q1] [30h+30h] [5 Credits]	X	X
○ LINGE1121	Mathematics II: algebra and matrix calculus	Tom Claeys	FR [q2] [30h+30h] [5 Credits]	X	X

Module 2 (cours de base en statistique/probabilité)

Au sein de chaque bloc, les cours doivent être suivis dans l'ordre indiqué.

⊗ Choix 2

○ LSTAT2011	Éléments de mathématiques pour la statistique	Catherine Legrand	FR [q1] [15h+15h] [3 Credits]	X	X
○ LSTAT2012	Probabilités: Concepts de base pour l'analyse statistique	Eugen Pircalabelu	FR [q1] [15h+15h] [3 Credits]	X	X
○ LSTAT2013	Concepts de base en statistique inférentielle	Eugen Pircalabelu	FR [q1] [15h+15h] [3 Credits]	X	X

⊗ Bloc 2

○ LBIR1212	Probabilities and statistics (I)	Patrick Bogaert	FR [q1] [30h+15h] [4 Credits]	X	X
○ LBIR1315	Probability and statistics II	Patrick Bogaert	FR [q1] [22.5h+22.5h] [3 Credits]	X	X

⊗ Bloc 3

○ LINGE1113	Probability	Johan Segers	FB [q2] [30h+15h] [4 Credits]	X	X
○ LINGE1214	Further Statistics	Christian Hafner	FB [q1] [30h+15h] [4 Credits]	X	X

⊗ Module 3 (cours de base en informatique)

Parmi les cours qu'il choisit, l'étudiant sélectionne maximum un cours parmi LINFO1101 et LINGE1225. L'étudiant qui suit plusieurs cours dans ce module suit obligatoirement les cours selon la séquence suivante : (LINFO1101 ou LINGE1225) puis LEPL1402 puis finalement LEPL1509.

⊗ LINFO1101	Introduction to programming	Kim Mens Siegfried Nijssen Charles Pecheur	FB [q1] [30h+30h] [5 Credits]	X	X
⊗ LINGE1225	Programming in Economics and Management	Marco Saerens	FB [q1] [22.5h+22.5h] [4 Credits]	X	X
⊗ LEPL1402	Informatics 2	Sébastien Jodogne Ramin Sadre Pierre Schaus	FB [q1] [30h+30h] [5 Credits]	X	X
⊗ LEPL1509	Project 4 (in informatics) LEPL1402 doit être suivi au plus tard la même année que LEPL1509.	Marc Lainez (compensates Yves Deville)	FB [q2] [30h+22.5h] [5 Credits]	X	X

⊗ Module 4 (Statistique)

⊗ au choix

maximum un cours parmi

⊗ LSTAT2120	Linear models	Christian Hafner	FB [q1] [30h+7.5h] [5 Credits]	X	X
⊗ LBIRA2110A	Modélisation et exploration des données multivariées - Biométrie	Xavier Draye Frédéric Gaspard Bernadette Govaerts	FB [q1] [30h+15h] [3 Credits]	X	X

⊗ au choix

maximum un cours parmi

⊗ LSTAT2110	Data Analysis	Johan Segers	FB [q1] [30h+7.5h] [5 Credits]	X	X
⊗ LINGE1222	Multivariate Statistical Analysis	Nathan Uyttendaele (compensates Johan Segers)	FB [q2] [30h+15h] [4 Credits]	X	X

⊗ au choix

maximum un cours parmi

⊗ LMAFY1101	Data exploration and introduction to statistical inference L'étudiant qui choisit le cours LMAFY1101 le suit impérativement en début de mineure.	Anouar El Ghouch	FB [q2] [30h+30h] [5 Credits]	X	
⊗ LSTAT2020	Statistical softwares and basic statistical programming	Céline Bugli	FB [q1] [15h+15h] [4 Credits]	X	X

⊗ au choix

⊗ LSTAT2030	Statistique et data sciences avec R: Programmation avancée	Anouar El Ghouch	FB [q2] [15h+15h] [4 Credits]	X	X
⊗ LSTAT2200	Survey and Sampling	Marie-Paule Kestemont	FB [q2] [15h+5h] [4 Credits]	X	X
⊗ LSTAT2310	Statistical quality control.	Bernard Francq	FB [q1] [15h+5h] [4 Credits]	X	X
⊗ LSTAT2320	Design of experiment.	Patrick Bogaert Bernadette Govaerts	FB [q2] [22.5h+7.5h] [5 Credits]	X	X
⊗ LSTAT2330	Statistics in clinical trials.	Catherine Legrand Annie Robert	FB [q2] [22.5h+7.5h] [5 Credits]	X	X

⊗ Module 5 (Cours de biologie)

L'étudiant choisit maximum un cours parmi

⊗ LBIO1110	Life : diversity and evolution	Patrick Dumont Caroline Nieberding	FB [q1] [30h+10h] [4 Credits]	X	X
⊗ LBIO1111	Cell and molecular biology	André Lejeune	FB [q1] [30h+20h] [5 Credits]	X	X
⊗ LIEPR1004A	Biologie cellulaire et éléments d'histologie (partim A FSA)		FB [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.

MINSTAT - Information

Access Requirements

The minor in statistics is open to all students from all UCL baccalaureate courses for whom statistics appears to be an attractive additional tool. The real content of his/her program will depend on his/her goals and basic skills in statistics, mathematics and IT.

We divide the students into three groups based on the role mathematics and statistics play in their university course:

- Group 1 : students whose baccalaureate program does not feature any mathematics training and who are not taking a sufficiently methodological statistics course.
- Group 2 : students with sound mathematics training but who have not covered much statistics in their baccalaureate program.
- Group 3 : students who already have a solid basic training in mathematics and statistics in their baccalaureate.

An adviser from the Institut de statistique will be available to help the student decide in which group s/he belongs and to help him/her choose his/her electives to match his/her aims.

Evaluation

*The evaluation methods comply with the **regulations concerning studies and exams** (<https://uclouvain.be/fr/decouvrir/rgee.html>). 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

Majors-minors giving direct access to a master's course(s) :

Students who pass the minor in statistics have fulfilled the necessary conditions to enroll on a specialized master's in statistics.

Majors-minors giving access to the master's subject to the student meeting an additional requirement(s):

Contacts

Curriculum Management

Entity

Structure entity

SST/SC/LSBA

Denomination

(LSBA)

Faculty

Faculty of Science (SC)

Sector

Sciences and Technology (SST)

Acronym

LSBA

Postal address

Voie du Roman Pays 20 - bte L1.04.01

1348 Louvain-la-Neuve

Tel: +32 (0) 10 47 43 14 - Fax: +32 (0) 10 47 30 32

<https://uclouvain.be/fr/facultes/sc/lsba>

Website

Academic supervisor: [Johan Segers](https://uclouvain.be/repertoires/johan.segers) (<https://uclouvain.be/repertoires/johan.segers>)

Useful Contact(s)

- Study advisor: [Pierre Devolder](https://uclouvain.be/repertoires/pierre.devolder) (<https://uclouvain.be/repertoires/pierre.devolder>)
- Study advisor: [Bernadette Govaerts](https://uclouvain.be/repertoires/bernadette.govaerts) (<https://uclouvain.be/repertoires/bernadette.govaerts>)
- Study advisor: [Donatien Hainaut](https://uclouvain.be/repertoires/donatien.hainaut) (<https://uclouvain.be/repertoires/donatien.hainaut>)
- Study advisor: [Catherine Legrand](https://uclouvain.be/repertoires/catherine.legrand) (<https://uclouvain.be/repertoires/catherine.legrand>)
- Study advisor: [Eugen Pircalabelu](https://uclouvain.be/repertoires/eugen.pircalabelu) (<https://uclouvain.be/repertoires/eugen.pircalabelu>)
- Secretary of The Louvain School of Statistics, Biostatistics and Actuarial Sciences: [Sophie Malali](https://uclouvain.be/repertoires/sophie.malali) (<https://uclouvain.be/repertoires/sophie.malali>)

