UCLouvain

lbrti2101a

2022

Data Science in bioscience engineering

3.00 credits	22.5 h + 15.0 h	Q1

Teacher(s)	Bogaert Patrick ;Hanert Emmanuel ;
Language :	French
Place of the course	Louvain-la-Neuve
Learning outcomes	
Evaluation methods	The examination takes place in two parts : (1) written examination (about an hour); (2) oral examination with a defense of the project completed by the group of students (abour half an hour)
Teaching methods	Courses in auditorium, practical exercises, seminars, group projects
Content	The course LBRTI2101 is divided in two parts that are evaluated separately : **LBRTI2101A - Spatial and temporal data** This course will complete the basic notions already presented during the courses LBIR 1212 - Probability and Statistics (I) and LBIR 1315 - Probability and Statistics (II). The student will be able to analyze data that are correlated through space and time, as frequently encountered in the agro-environmental context. The course will emphasize the link between the general theory and the practical specificities of environmental data. It should allow the student to model such kind of processes and to use them in a mapping or forecasting context. **LBRTI2101B - Special topics in data sciences** Through a series of assignments, seminars and visits introducing in detail the concrete problems and solutions in the field of information management, students will be exposed to a variety of methodological, organizational and technical approaches. Depending on their orientation, students will have the opportunity to deepen a particular issue and to present a critical analysis based on conceptual, organizational and technical matters. Particular attention will be paid to the analysis of issues related to information reliability, security, confidentiality and ownership. This module highlights the technical solutions put in place to manage various sources of information and introduces the students to the issues associated with them at the institutional and societal level. In some cases, the review of solutions will also include a cost-benefit analysis and a review of the the strategy put in place to implement and integrate the information system in the decision-making process.
Inline resources	Moodle
Faculty or entity in charge	AGRO

Programmes containing this learning unit (UE)

Program title	Acronym	Credits	Prerequisite	Learning outcomes
Master [120] in Biology of Organisms and Ecology	BOE2M	3		
Master [120] in Statistics: Biostatistics	BSTA2M	3		
Master [120] in Forests and Natural Areas Engineering	BIRF2M	3		
Master [120] in Environmental Bioengineering	BIRE2M	3		
Master [120] in Agriculture and Bio-industries	SAIV2M	3		
Certificat d'université : Statistique et science des données (15/30 crédits)	STAT2FC	3		
Master [120] in Agricultural Bioengineering	BIRA2M	3		