mlsmm2116

2020

Data Analytics

Due to the COVID-19 crisis, the information below is subject to change, in particular that concerning the teaching mode (presential, distance or in a comodal or hybrid format).

5 credits	30.0 h	Q1

Teacher(s)	Fouss François ;Francq Pascal (compensates Fouss François) ;
Language :	English
Place of the course	Mons
Main themes	Nowadays, data are everywhere. For most organizations, potentially every area of its business, as well as every relationship related to its business, can now be quantified and recorded. Such amount of data led to the emergence of powerful methods for storing, processing, querying, and extracting useful information/knowledge from these data. This course will be focused on methods for data understanding, design, management, preparation, modeling, querying, and visualization, as a global means for the organization of making better decisions. As a central element in data analytics, modeling and methodology will play an important role in this course, including, e.g., data design for business intelligence analytics, predictive modeling, or fitting statistical models to data.
Aims	*The contribution of this Teaching Unit to the development and command of the skills and learning outcomes of the programme(s) can be accessed at the end of this sheet, in the section entitled "Programmes/courses offering this Teaching Unit".*
Bibliography	**Sources potentielles :** Provost & Fawcett (2013) 'Data science for business'. O'Reilly. Sherman (2014) 'Business intelligence guidebook: from data integration to analytics'. Morgan Kaufmann. Efraim, Sharda & Delen (2010) 'Decision support and business intelligence Systems'. Pearson. Leskovec, Rajaraman & Ullman (2014) 'Mining of massive datasets, 2nd ed'. Cambridge University Press. Kelleher, Mac Namee & D'Arcy (2015) 'Fundamentals of machine learning for predictive data analytics. MIT Press. Hastie, Tibshirani & Friedman (2009), "The elements of statistical learning, 2nd ed". Springer-Verlag. Izenman (2008), 'Modern multivariate statistical techniques: regression, classification, and manifold learning. Springer. Bellanger & Tomassone (2014), "Exploration de données et méthodes statistiques : data analysis & data mining avec le Logiciel R". Ellipses.
Faculty or entity in charge	CLSM

Programmes containing this learning unit (UE)

Program title	Acronym	Credits	Prerequisite	Aims
Master [120] in Public Administration	ADPM2M	5		🔍
Master [120] : Business Engineering	INGM2M	5		🔍