

Business Data Analytics 1

ECTS : 3

Description du contenu de l'enseignement :

This course, intended for all MIB Master's students, aims to provide them with an understanding of the fundamentals of data science, data analysis, and AI applied to business issues. It uses the Dataiku platform to illustrate concepts and enable practical application.

Course Structure

Main topics covered:

1. Introduction to Data Science & Business Analytics

- The role of data in businesses
- Basics of business intelligence
- Key concepts and challenges (decision-making, automation, AI, etc.)
- Concrete examples of sector-specific applications

2. Review of statistics & fundamentals of data analysis

- Measures of central tendency and dispersion
- Concepts of correlation and causality
- Basics of applied probability
- Review of matrices/vectors/scalars/tensors

3. Data visualization & exploration

- Importance of visualization for decision-making
- Tools and best practices (curves, histograms, heat maps, etc.)

4. Data preparation and transformation

- Data cleaning, missing value management
- Aggregations, joins, data set enrichment

5. Introduction to machine learning & predictive models**

- Logic of supervised and unsupervised algorithms
- Use case examples (customer attrition prediction, segmentation, anomaly detection)

6. Model performance evaluation

- Metrics and KPIs
- Limitations and interpretation of results

Compétence à acquérir :

Data analytical capabilities

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