DIGITAL MANAGEMENT (LB46)

(Lecce - Università degli Studi)

Teaching BUSINESS ANALYTICS

GenCod A005238
Owner professor FABRIZIO DURANTE

Teaching in italian BUSINESS ANALYTICS

Teaching BUSINESS ANALYTICS

SSD code SECS-S/06

Reference course DIGITAL MANAGEMENT

Course type Laurea

Credits 6.0

Teaching hours Front activity hours: 36.0

For enrolled in 2018/2019

Taught in 2020/2021

Course year 3

Language ENGLISH

Curriculum ECONOMICO

Location Lecce

Semester Second Semester

Exam type Oral

Assessment Final grade

Course timetable
https://easyroom.unisalento.it/Orario

BRIEF COURSE DESCRIPTION	The course presents a vast set of machine learning tools for understanding and making prediction from the data. All the presented tools are illustrated in several real case studies with the software R.

REQUIREMENTS	Basic elements of calculus and statistics for data analysis

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COURSE AIMS

Knowledge and understanding:
· Knowledge and understanding of machine learning models;
· Knowledge and understanding of quantitative tools for business, including segmentation and forecasting.

Applying knowledge and understanding:
· Ability to extract relevant information from big dataset for management and business innovation.
· Ability to identify the machine learning models that are suitable to analyse correctly a specific business problem.
· Ability to use a specific programming language to implement machine learning procedures.

Making judgments:
Making judgements on pros and cons of different machine learning tools.

Communication skills:
to present in a concise way the results of a quantitative analysis.

Learning skills:
Ability to formalize in an algorithmic form a problem of interest in business.

TEACHING METHODOLOGY   Frontal lectures, exercises, computer labs.

ASSESSMENT TYPE	The written exam consists of several exercises and one or more review questions. The project work consists of the preparation of a quantitative analysis related to the contents of the course with the help of the software R. To pass the exam students must obtain a positive evaluation on both the written exam and the project. Both parts weigh 50% of the total points. Sample of the written exam will be available at the course webpage. There is no difference in the assessment procedures between attending and non-attending students. University of Salento "*promuove e garantisce l'inclusione e la partecipazione effettive degli studenti con disabilità*" (art. 10 of the Statute). Students that have a disability or impairment that requires accommodations (i.e., alternate testing, readers, note takers or interpreters) could contact the Disability and Accessibility Offices in Student Services: paola.martino@unisalento.it
ASSESSMENT SESSIONS	see the webpage economia.unisalento.it
OTHER USEFUL INFORMATION	Starting with January 2021, more information will be available on the course webpage.
FULL SYLLABUS	Introduction to Machine Learning. Cross-Validation. K-Nearest neighbour algorithms. Linear Model. Regularization. Lasso. Decision Trees. Support Vector Machines. Unsupervised learning. K-means algorithms. Clustering.
REFERENCE TEXT BOOKS	Required reading: John C. Hull: Machine Learning in Business – An introduction to the world of data science, 2019. Suggested reading: James, G., Witten, D., Hastie, T., Tibshirani, R.: An Introduction to Statistical Learning with Applications in R. Springer, 2013. Free available at http://www-bcf.usc.edu/~gareth/ISL/ Lectures notes will be provided.