BUSINESS MANAGEMENT (LM01)

(Lecce - Università degli Studi)

Teaching STATISTICS FOR BUSINESS

GenCod A003654

Owner professor Leonardo MARIELLA

Teaching in italian STATISTICS FOR BUSINESS

Teaching STATISTICS FOR BUSINESS

SSD code SECS-S/01

Reference course BUSINESS MANAGEMENT

Course type Laurea Magistrale

Credits 6.0

Teaching hours Front activity hours: 48.0

For enrolled in 2020/2021

Taught in 2021/2022

Course year 2

Language ENGLISH

Curriculum CONTROLLO DI GESTIONE

Location Lecce

Semester First Semester

Exam type Oral

Assessment Final grade

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

BRIEF COURSE DESCRIPTION

The course explains the most commonly used statistical methods such as support for managerial decisions.

REQUIREMENTS

Knowledge of Statistics and Business Economics

COURSE AIMS

The course aims to provide methodologies and tools for the analysis, interpretation and forecasting of company data.

Expected results according to Dublin descriptors:

Knowledge and understanding
- Acquisition of concepts, methodologies and tools for the analysis of corporate data.
- Knowledge and use of the main statistical software for the analysis of company data (Excel, Gretl).

Ability to apply knowledge and understanding
-Ability to interpret Company data, their evolution and consistency through statistical analysis, building suitable models also with the use of sophisticated algorithms.
-Presentation and critical interpretation of the results.

Making judgments
-Ability to use the results of the analyzes to formulate interpretative hypotheses, derive strategic indications, make decisions in conditions of uncertainty.

TEACHING METHODOLOGY

Frontal lessons with use of audiovisual aids, classroom exercises. During the epidemiological period, the lectures will be held via Teams platform.

ASSESSMENT TYPE	Oral exam with discussion of practical cases and example processing of company data. During the epidemiological period, the exams will be held via Teams platform. The student, disabled and / or with DSA, who intends to take advantage of an individualized intervention to carry out the examination must contact the Disabled Integration Office of the University of Salento at paola.martino@unisalento.it
OTHER USEFUL INFORMATION	The student, disabled and / or with DSA, who intends to take advantage of an individualized intervention to carry out the examination must contact the Disabled Integration Office of the University of Salento at paola.martino@unisalento.it

FULL SYLLABUS

Main sources of Business Statistics:
o Internal sources for data collection
o The National Statistical System and external sources
* The National Statistical System
* External sources for data collection
o Other databases
* The databases of Cerved Group s.p.a
Descriptive Statistics:
* Collective and statistical features
* Tables and graphs
* Statistical indexes
* Balance indexes
o Composition indexes
o Balance indexes and turnover ratios
o Profitability ratios
Position and variability of distributions:
* Position indexes
o Modal value
o Median value
o Mean and trimmed mean
* Variability indexes
o Accuracy of modal value
o Accuracy of median value
o Accuracy of mean
* The Delphi method and its variants
o Features of the expert panel
o Features of the method
* Some variants of the Delphi method
Empirical distribution function and indices:
* Empirical distribution function
* Position and empirical distribution function
o Quantile values
o Half sum of quantile values
* Variability and empirical distribution function
o Interquantile range
* The Shang method
Index numbers:
* Simple index numbers
* Composite index numbers
* Weighted composite index numbers
* Business productivity
o Analysis of the output of a process
o Analysis of the inputs of a process
o Partial productivity indices
o Overall productivity indexes
* Temporal and spatial analysis of business productivity
Analysis of interdependence:
* Independence
* Statistical connection between two features
* Cograduation and correlation between two features
* Customer features

Analysis of dependence:
* Mean-independence
* Linear regression model
* Break even analysis
* Convenience analysis
* Multiple linear regression model
* Generalized break even analysis
* Balance analysis
Inference Statistics:
* Population and sample
* Features of an infinite population
o Sampling from infinite populations
o Estimating of an infinite population parameters
* Control charts
o Control charts for attributes
o Control charts for variables
* Features of an finite population
o Sampling from finite populations
o Estimating of an finite population parameters
* Sampling techniques in auditing
o Estimation sampling
o Discovery sampling

The course includes lectures, demonstrations, computer labs and practical exercises.

REFERENCE TEXT BOOKS

L. Mariella, M. Tarantino. Statistica Aziendale per il Controllo di Gestione. McGraw-Hill Education (Italy), Milano, gennaio 2013