

# 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** Ore-Attività-frontale: 48.0

**For enrolled in** 2017/2018

**Taught in** 2018/2019

**Course year** 2

**Language** INGLESE

**Curriculum** CONTROLLO DI GESTIONE

**Location** Lecce

**Semester** Primo-Semestre

**Exam type** Orale

**Assessment** Voto-Finale

**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

Elements of Statistics and Business Economy

### COURSE AIMS

The teaching is intended to provide the student with:

- specific knowledge of the most frequently used statistical methods to deal with and analyze problems in the business environment;
- in order to facilitate understanding all the techniques are applied to specific cases;
- the autonomy of judgment and the intuitive ability of the student are stimulated through the solution of problems to be dealt with autonomously or through activities for small groups;
- in order to form communication skills and verify learning skills, solved problems are exposed by the students to the classroom

### TEACHING METHODOLOGY

Lectures with use of audiovisual supports, exercises in the classroom

### ASSESSMENT TYPE

Oral examination with resolution of specific problems

## 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
- \* Cogradauation 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

---

#### REFERENCE TEXT BOOKS

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