

# ECTS - Instituto Superior de Contabilidade e Administração do Porto

## Degree: Marketing (evening Courses)

### Course: Statistic I

Academic Year: 2015/2016

Academic year: 2

Term: Winter Semester

Attendance: Mandatory

Course Responsible Teacher: Doutor Fernando Magalhães

Number of Credits (ECTS): 5.0

Theoretical/Practical Work (hours): 3.0 h

#### Objectives:

Objectives:

To acquire and to process statistical information;

To promote critical reflection;

To prepare for developing methods of statistical inference.

Competences:

To apply basic statistical methods;

To solve problems in a real context, applied to Management Sciences;

To interpret and to report statistical information in an adequate way.

#### Syllabus:

Probability Theory

-Classic Definition

-Relative Frequency Definition

-Kolmogorov's Axiomatic and Basic Probability Laws

-Conditional Probability

-Bayes' Theorem

-Random Independency

Random Variables and Probability Distributions

-Random Variables

-Cumulative Distribution Function

-Discrete and Continuous Random Variables

-Expected Value

-Moments

-Order Parameters

Theoretical Distributions

-Discrete: Uniform, Binomial, Multinomial, Hipergeometric, Poisson

-Continuous: Uniform, Exponencial, Normal

Limit Theorems

#### Objectives:

Theoretical / practical lessons:

presentation and illustration of the theoretical concepts;

resolution of practical exercises.

To guide and to follow the students in their study.

#### Assessment Methods:

Continuous evaluation

or

Final evaluation

#### References:

-Murteira, B., Silva Ribeiro, C., Andrade e Silva, J., Pimenta, C., #Introdução à Estatística#, McGraw-Hill, Lisboa, 2002

-Murteira, Bento J.F., #Probabilidades e Estatística#, Vol. I e II, McGraw-Hill, Lisboa, 1990

Paulino, C. D., Branco, J.A., #Exercícios de Probabilidade e Estatística#, Escolar Editora, Lisboa, 2004

-Pestana, D.D., Velosa, S.F., #Introdução à Probabilidade e Estatística # volume I#, Fundação Calouste Gulbenkian, 2002

-Oliveira, C., Magalhães, F., #Introdução à Análise Combinatória # O Problema da Contagem#, Escolar Editora, Lisboa, 2004

-Robalo, A., #Estatística # Exercícios#, Vol. I e II, Edições Sílabo, Lisboa, 1991

-Webster, A.L., #Estatística Aplicada à Administração e Economia#, McGraw-Hill, 2006

Doutor Fernando Magalhães

S. Mamede Infesta, 19 de Setembro de 2015