

Academic Year: (2019 / 2020)

Review date: 17-05-2019

Department assigned to the subject:

Coordinating teacher: MUÑOZ GARCIA, ALBERTO

Type: Compulsory ECTS Credits : 3.0

Year : 1 Semester : 1

REQUIREMENTS (SUBJECTS THAT ARE ASSUMED TO BE KNOWN)

Statistical notions are convenient.

OBJECTIVES**1. STATISTICS KNOWLEDGE AND SKILLS**

- 1.1. Students should gain a thorough understanding of the problems relevant to the different functional areas.
- 1.2. Students should be able to diagnose potentially complex real-world statistical problems.
- 1.3. Students should be able to relate theory and practice.

2. ORGANIZATION TEAM AND PERSONAL SKILLS

- 2.1. Students should be able to explain their diagnosis and the solutions they propose in a clear and convincing way.
- 2.2. Students should be able to work effectively in teams and to demonstrate their capacity in managing diversity.
- 2.3. Students should be able to demonstrate their capacity to lead others and their own professional life.

DESCRIPTION OF CONTENTS: PROGRAMME**Class 1: Introduction and Descriptive Statistics**

Readings: Chapter 1 and Chapter 2: Statistics for Business and Economics. Paul Newbold.

Cases/Exercises: Summarizing quantitative data. Cities data set, women data set, work with women labor force.

Class 2: Random Variables and Probability.

Readings: Chapters 3,4 and 5: Statistics for Business and Economics. Paul Newbold.

Cases/Exercises: Probability exercises. Random variable exercises.

Class 3: Multivariate Descriptive Statistics.

Readings: Chapter 4. Statistics for Business and Economics. Paul Newbold.

Cases/Exercises: Exercises with multivariate data sets and tables.

Class 4: Correlation and linear regression.

Readings: Chapter 12: Statistics for Business and Economics. Paul Newbold.

Cases/Exercises: Linear regression exercises with economic and business data.

Class 5: Multiple Linear Regression.

Readings: Chapter 13: Statistics for Business and Economics. Paul Newbold.

Cases/Exercises: Multiple linear regression exercises with economic and business data.

Class 6: Sampling and sampling distributions.

Readings: Chapter 6: Statistics for Business and Economics. Paul Newbold.

Cases/Exercises: Sampling distribution problems. Central limit theorem simulations.

Class 7: Point Estimation and Interval Estimation I.

Readings: Chapters 7 and 8: Statistics for Business and Economics. Paul Newbold.

Cases/Exercises: Exercises in statistical inference.

Class 8: Interval Estimation II.

Readings: Chapter 8: Statistics for Business and Economics. Paul Newbold.

Cases/Exercises: Inference and confidence interval problems.

Class 9: Hypothesis testing I.

Readings: Chapter 9: Statistics for Business and Economics. Paul Newbold.

Cases/Exercises: Hypothesis testing exercises (I).

Class 10: Hypothesis testing II.

Readings: Chapter 9: Statistics for Business and Economics. Paul Newbold.

LEARNING ACTIVITIES AND METHODOLOGY

ACTIVIDADES FORMATIVAS

Theory (15 hours)

Practices (15 hours)

Office Hours (10 horas)

Group Work and Individual Work

ASSESSMENT SYSTEM

%60 Final Exam. A minimum score of 3.5 points (out of 10) is required.

%10 Homework. There are a maximum of 9 homework assignments.

%10 Individual Final Work. It consists of a individual analysis of a data set chosen by the student or a case study proposed by the teacher..

%20 Team work. Team work consists of a statistical analysis of a business case study.

% end-of-term-examination:	60
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% of continuous assessment (assignments, laboratory, practicals...):	40
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BASIC BIBLIOGRAPHY

- Groebner, Shannon, Fry, Smith Business Statistics. A decision making approach, Prentice Hall, 2011
- Paul Newbold Statistics for Business and Economics, Prentice Hall, 2010