

Bachelor Degree in Tourism and Hospitality Management

Academic Year: 2019-2020

Teaching guide

Area: Statistics

Subject: Statistics

Period: Semester 3

Lecturers:

Dr. Pere Calleja Cortés

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MODULE: SOCIAL SCIENCES FOUNDATIONS

AREA: STATISTICS

SUBJECT: STATISTICS

CODE: BA3EST

LANGUAGE: ENGLISH

YEAR: 2

PERIOD: SEMESTER 3

CREDITS: 6 ECTS

1. Subject objectives

The course is organized such that the student learns to collect, sort and analyze quantitative and qualitative data from tourism markets, so that its description and interpretation, both numerically and graphically, will facilitate the process of decision making on various relevant tourist aspects.

The course mainly focuses on the study of descriptive statistics, a discipline that provides the tools to synthesize the available information and develop appropriate solutions to the posed problems. The course is devoted to the study of the main statistical measures in the case of one and two variables. Finally, the last unit is devoted to the study of probabilistic concepts and testing hypothesis.

2. Competencies developed

Basic

B01 - Be able to acquire, understand and structure knowledge.

B02 - Be able to apply knowledge.

B03 - Be able to search for and manage information in order to solve problems, transmit reflective judgements and/or make decisions.

B04 - Be able to communicate information and/or knowledge in one's mother tongue, as well as in at least two foreign languages.

B05 - Be able to learn autonomously and continuously

General

G07 - Team work and collaboration: Cooperates actively and jointly in achieving common objectives.

G11 - Planning and organization: reflects a constant concern for minimizing uncertainty in the environment and comply with established quality parameters.

Specific

E01 - Understand and analyze the economic dimension of tourism

E19 - Convert an empirical problem into research and draw conclusions.

E20 - Analyze and utilize information technology and communications (ICT) in different areas of the tourism sector.

3. Content

Session 1: Unit 1. Frequency Distributions. Introduction to statistics. Population and sample. Classification of variables..

Session 2: Organization and presentation of data. Frequency distributions.

Session 3: Frequency distributions - Practice. Arrange data by using intervals. Graphical representations..

Session 4: Unit 2. Statistical analysis with one variable. Statistical centralization measures. The mean, the median and the mode.

Session 5: Statistical non-central position measures. Practice: Statistical position measures..

Session 6: Statistical dispersion measures.

Session 7: Statistical shape measures.

Session 8: Statistical concentration measures.

Session 9: Time series analysis. Components..

Session 10: Time series analysis. Moving average and seasonal component.

Session 11: Unit 3. Statistical analysis with two variables. Bidimensional distribution.

Session 12: Marginal distribution and conditional distribution.

Session 13: Graphical representation. Analysis of the statistical dependence between two variables: the covariance. .

Session 14: Partial Exam. Units 1 and 2.

Session 15: The linear regression coefficient. The regression line..

Session 16: Analysis of the statistical dependence between two qualitative variables. Ordinal attributes: the Spearman coefficient.

Session 17: The Goodman-Kruskal coefficient.

Session 18: Nominal attributes: the Pearson coefficient.

Session 19: Unit 4: Probability. The concept of probability..

Session 20: The total probability Theorem. The Bayes Theorem.

Session 21: Partial Exam. Unit 3.

Session 22: Distribution function of continuous random variables..

Session 23: The normal distribution (1).

Session 24: The normal distribution (2).

4. Teaching methodology

Finding information and preparation and organization of material. Finding statistical data typical from the tourism sector including time series as well as tourism entries classified by nationalities and destination

Practical Exercises. Problem sets adapted to real situations in tourism.

Plenary Lectures. Lectures in which the foundations of statistics are presented

Working individually or in groups. Individual or group work concerning tourism recent data

5. Assessment activities

Regular examination call

- **Partial Exam. Units 1 and 2 (Oct, 25/2019)**

Partial exam (Individual - 30%)

Evaluated competences: B1,B2,B3,B5,E1,E19

- **Tourism sector data analysis. (Nov, 08/2019)**

Academic Work (Group - 10%)

Evaluated competences: B1,B2,B3,B4,B5,E1,E19,E20

- **Partial Exam. Unit 3 (Nov, 22/2019)**

Partial exam (Individual - 25%)

Evaluated competences: B1,B2,B3,B5,E1,E19

- **Final Exam (Dec, 12/2019)**

Final exam (Individual - 20%)

Evaluated competences: B1,B2,B3,B5,E1,E19

- **Exercises in class.**

Case analysis (Individual - 15%)

Evaluated competences: B1,B2,B5,E1,E19,E20

For every partial exam, students obtaining a mark equal or greater than 5 remove the corresponding contents.

The final exam consists of three parts: Units 1 and 2, Unit 3, and Unit 4. To pass the course it is necessary to obtain a mark equal or greater than 5 for each of the three parts.

In the final exam, each student contents will consist of the non removed parts in partial exams.

To pass the course in the ordinary call it is necessary to obtain a mark in the exercises in class equal or higher than 5.

Resit examination call

- **Tourism sector data analysis. (Jan, 20/2020)**

Academic Work (Individual - 10%)

Evaluated competences: B1,B2,B3,B4,B5,E1,E19,E20

- **Problem sets (Jan, 20/2020)**

Academic Work (Individual - 15%)

Evaluated competences: B1,B2,B5,E1,E19,E20

- **Final Exam (Jan, 20/2020)**

Final exam (Individual - 75%)

Evaluated competences: B1,B2,B3,B5,E1,E19

The final exam consists of three parts: Units 1 and 2, Unit 3, and Unit 4. Each part weights as in the ordinary call: 30%, 25% and 20%, respectively. To pass the course it is necessary to obtain a mark equal or greater than 5 for each of the three parts. The mark obtained in partial exams or in final exam relative to each part in the ordinary call in case of being equal or larger than 5, is kept for the re-sit examination call.

The marks obtained in the ordinary call for the exercises in class and the tourism sector data analysis is hold. In case your mark in any of these activities is smaller than 5 you could improve it up to 5 by doing some extra work facilitated by the teacher.

Repeating students without attendance: regular examination call

- **Tourism sector data analysis. (Nov, 08/2019)**

Academic Work (Individual - 10%)

Evaluated competences: B1,B2,B3,B4,B5,E1,E19,E20

- **Problem set (Dec, 12/2019)**

Academic Work (Individual - 15%)

Evaluated competences: B1,B2,B5,E1,E19,E20

• **Final Exam (Dec, 12/2019)**

Final exam (Individual - 75%)

Evaluated competences: B1,B2,B3,B5,E1,E19

The final exam consists of three parts: Units 1 and 2, Unit 3, and Unit 4. Each part weights 30%, 25% and 20%, respectively To pass the course it is necessary to obtain a mark equal or greater than 5 on each of the three parts.

Repeating students without attendance: resit examination call

• **Tourism sector data analysis. (Jan, 20/2020)**

Academic Work (Individual - 10%)

Evaluated competences: B1,B2,B3,B4,B5,E1,E19,E20

• **Problem set (Jan, 20/2020)**

Academic Work (Individual - 15%)

Evaluated competences: B1,B2,B5,E1,E19,E20

• **Final exam (Jan, 20/2020)**

Academic Work (Individual - 75%)

Evaluated competences: B1,B2,B3,B5,E1,E19

The final exam consists of three parts: Units 1 and 2, Unit 3, and Unit 4. Each part weights as in the ordinary call: 30%, 25% and 20%, respectively. To pass the course it is necessary to obtain a mark equal or greater than 5 for each of the three parts. The mark obtained in final exam relative to each part in the ordinary call in case of being equal or larger than 5, is kept for the re-sit examination call.

The marks obtained in the ordinary call for the problem set and the tourism sector data analysis is hold. In case your mark in any of these activities is smaller than 5 you could improve it up to 5 by doing some extra work facilitated by the teacher.

Follow-up meetings

Week 3

Week 7

Week 13

6. Bibliography

Mandatory readings

Newbold, P., Carlson, W.L. y Thorne, B.M. (2013) Statistics for Business and Economics. Pearson See chapters/pages1,2,3

Recommended readings

Sarrión-Gavilán, M.D., (2013) Estadística descriptiva. Madrid: McGraw-Hill / Interamericana de España, S.A. See chapters/pages1,2,3

Martín Gúzman et al., (2006) Manual de estadística: descriptiva. Cizur Menor: Editorial Aranzadi. See chapters/pages1-7

Instituto Nacional de Estadística (n.d) [Internet]. Disponible en

World Tourism Organization, Statistics and Tourism Satellite Account (n.d) [Internet]. Disponible en

Departament d'Empresa i Ocupació. Estadístiques turístiques (n.d) [Internet]. Disponible en

7. Lecturer/s

Dr. Pere Calleja Cortés (Head lecturer) - pere.calleja@htsi.url.edu

Contact hour: Friday, 8:30-9:30 (please contact by e-mail first)

Degree in Economics. Universitat de Barcelona

PhD in Economics. Universitat de Barcelona

Associate Professor. Universitat de Barcelona

Assistant Professor. Universitat Oberta de Catalunya

Assistant Professor. ESADE

8. Observations

* Information on the academic calendar, exam timetables, and room assignment will be posted on the virtual campus and on the faculty's web site once it is available.

* Academic norms and regulations is an obligation for all the members of the academic community in the faculty.

A 70% of attendance is mandatory, if this is not achieved the lecturer will decide on how to proceed, an option will be not to evaluate the student.