Universitat de Lleida

DEGREE CURRICULUM

STATISTICS

Coordination: GOMEZ ADILLON, MARIA JESUS

Academic year 2022-23

STATISTICS 2022-23

Subject's general information

<table>
<tr><td>Subject name</td><td>STATISTICS</td></tr>
<tr><td>Code</td><td>102602</td></tr>
<tr><td>Semester</td><td>1st Q(SEMESTER) CONTINUED EVALUATION</td></tr>
<tr><td>Typology</td><td>
<table>
<tr><th>Degree</th><th>Course</th><th>Character</th><th>Modality</th></tr>
<tr><td>Bachelor's Degree in Tourism</td><td>1</td><td>COMMON/CORE</td><td>Attendance-based</td></tr>
<tr><td>Double degree: Bachelor's degree in Geography and Bachelor's degree i Tourism</td><td>2</td><td>COMMON/CORE</td><td>Attendance-based</td></tr>
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<tr><td>Course number of credits (ECTS)</td><td>6</td></tr>
<tr><td>Type of activity, credits, and groups</td><td>
<table>
<tr><th>Activity type</th><td>PRAULA</td><td>TEORIA</td></tr>
<tr><th>Number of credits</th><td>2.1</td><td>3.9</td></tr>
<tr><th>Number of groups</th><td>1</td><td>1</td></tr>
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<tr><td>Coordination</td><td>GOMEZ ADILLON, MARIA JESUS</td></tr>
<tr><td>Department</td><td>APPLIED ECONOMICS</td></tr>
<tr><td>Teaching load distribution between lectures and independent student work</td><td>(40%) 60h presencials
(60%) 90h treball autònom</td></tr>
<tr><td>Important information on data processing</td><td>Consult this link for more information.</td></tr>
<tr><td>Language</td><td>Catalan</td></tr>
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STATISTICS 2022-23

Teaching staff	E-mail addresses	Credits taught by teacher	Office and hour of attention
GOMEZ ADILLON, MARIA JESUS	mjesus.gomez@udl.cat	6	

Learning objectives

1. Use the appropriate statistical terminology in the field of Tourism

2. Use basic ICT resources to follow the subject

3. Effectively use different computer programs for the descriptive statistical treatment of data.

4. Recognize the different types of data and the most appropriate descriptive techniques for statistical analysis.

5. Properly calculate the different summary statistical measures of a data set at both one-dimensional and two-dimensional levels.

6. Calculate index numbers and apply time series analysis techniques.

7. Use elements of theoretical statistics to assess the possibility of occurrence (probability) of a certain random phenomenon.

8. Identify the characteristics of discrete and continuous probability distributions and stochastic convergence theorems.

9. Prepare tables and graphs as a tool to synthesize information at a one-dimensional and two-dimensional level.

10. Adequately interpret tables and graphs to synthesize a large number of information, at a one-dimensional and two-dimensional level.

Competences

General or basic competences (CB)

CB 1. Capacity for analysis and synthesis.

CB 2. Ability to organize and plan.

CB 3. Criticism and self-criticism capacity

CB 4. Being able to work and learn autonomously and, simultaneously, interact appropriately with others through cooperation and collaboration.

CB 5. Act in attention to rigor, personal commitment and quality-oriented.

Specific competences (CES)

CES 3. Apply instrumental techniques in the analysis and solution of business problems and in decision-making.

Strategic competences university (CEU)

CEU 1. Correct oral and written expression.

CEU 3. Mastery of ICT.

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Subject contents

Subject contents

Subject 1. Introduction to statistics

1.1.Concept and content of statistics.

1.2.The process of statistical analysis.

1.3.Tourism and business applications

1.4.Data. Data classification.

1.5.Computer tools for statistical analysis of data.

Subject 2. Unidimensional descriptive analysis

2.1.Distribution of frequencies.

2.2.Measures of position.

2.3.Measures of dispersion.

2.4.Other descriptive measures.

2.5.Transformation of variables. Properties and classification.

Subject 3. Bi-dimensional descriptive analysis

3.1.Distribution of frequencies.

3.2.Marginal and conditional distributions. Independence.

3.3.Association between two variables. Covariance and correlation.

3.4. Linear regression. Coefficient of determination.

3.5.Association between two attributes. Contingency table.

Subject 4. Indexes and time series

4.1. Concept and classification of index numbers.

4.2.Calculation of the main economic indexes.

4.3.Properties and operations with indexes.

4.4. Concept of time series.

4.5.Analysis of the components of a time series.

Subject 5. Calculating probabilities

5.1.Probability measure. Axiomatic and properties.

5.2.Conditional probability. Intersection theorem.

5.3.Independence of events.

5.4. Total probability theorem. Bayes' theorem.

Subject 6. Probabilistic models

6.1.Definition of random variable.

6.2.Characteristics of a random variable.

6.3.Discrete distributions.

6.4.Continuous distributions.

6.5.Stochastic convergence theorems.

Methodology

Face-to-face activities:

Presentation of the content of the topics with explanation of the theory, examples and problem solving.

Practical classes in the computer room with the planning and resolution of activities with the use of computer programs.

Tutoring: review of the contents and resolution of doubts, defense or discussion of cases.

Autonomous work:

Study by the student of the theory, resolution of examples, exercises and activities manually and with computer support and preparation of the activities and evaluation tests.

Development plan

Weeks	Description	Activities
1	Subject presentation	Explanation of the contents, methodology, materials and evaluation
2-7	Themes 1,2 i 3 Computer Practices	Master class and problems Resolution of activities
8	First evaluation activity	
9	Second evaluation activity	
10-14	Themes 4, 5 i 6 Computer Practices	Master class and problems Resolution of activities
15	Third evaluation activity	
16-17	Fourth evaluation activity	

Evaluation

Based on the established objectives and learning outcomes, the subject of basic statistics will be assessed through continuous assessment which will consist of 4 assessment activities:

Evaluation Activities	%	Dates	O/V (1)	I/G (2)	
First activity **(A1)**	20	7 week	O		
Second activity **(A2)**	25	9 week	O		
Third activity **(A3)**	25	15 week	O	I	
Fourth activity **(A4)**	25	16-7 week	O	I	

(1) Compulsory / Voluntary (2) Individual / Group

Evaluation criteria

All assessment activities are individual and mandatory to obtain the final grade.

Failure to submit to any of the assessment activities will result in a grade of zero in the activity not submitted. Each activity will have a grade from 0 to 10.

Percentage of weight that each activity has in the final evaluation

Each assessment activity will have a weight of 25% in the final grade, so the final assessment will be the average between the four tests.

The subject will be considered passed with an average mark of the four tests between 5 and 10.

Clarifications

If you do not present more than 2 of the four assessment activities (3 or 4 tests not presented), the final grade will be NOT PRESENTED, if the number of activities assessment scores are more than two (3 or 4 tests) the final grade will be the average of four.

Bibliography

Recommended bibliography

- Material docent campus virtual Sakai (2022-23)
- Biblioguies Grau en Turisme https://biblioguies.udl.cat/turisme
- Coenders Gallar, Germà i altres. Tècniques d'Anàlisi Turística. Editorial Documenta Universitaria, 2009
- Jimenez Gónzalez, Victoria y otros. Estadística para Turismo (capitols 1-10 i 14). McGraw-Hill, 2007
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- Lind, Marchal i Wathen. Estadística aplicada a los negocios y la economia. McGraw-Hill, 2015. Es pot consultar a l'enllaç del catàleg de la biblioteca: https://discovery.udl.cat/iii/encore/record/C__Rb1362071?lang=cat
- Murray R.Spiegel. Estadística "Serie Schaum". McGraw-Hill, 2020. https://www.yumpu.com/es/document/read/63022012/estadistica-serie-schaum-4ta-edicion-murray-r-spiegelpdf-1
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- SPSS: ftp://public.dhe.ibm.com/software/analytics/spss/documentation/statistics/20.0/es/client/Manuals/IBM_SPSS_Statistics_Core_System_Users_Guide.pdf