



DEGREE CURRICULUM

STATISTICS

Coordination: GÓMEZ ADILLÓN, MARÍA JESÚS

Academic year 2021-22

Subject's general information

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

Teaching staff	E-mail addresses	Credits taught by teacher	Office and hour of attention
GÓMEZ ADILLÓN, MARÍA JESÚS	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

Setmanes	Descripció: GG: grup gran i GM: grup mitjà	Activitat Presencial
1	GG: Presentació assignatura	Explicació dels continguts, metodologia, materials i avaluació
2-7	GG: Temes 1,2 i 3 GM: Practiques	Lliçó magistral i problemes Resolució d'activitats
8	1a. Activitat d'avaluació	
9	2a. Activitat d'avaluació	
10-14	GG: Temes 4, 5 i 6 GM: Pràctiques	Lliçó magistral i problemes Resolució d'activitats i presentació escrita del treball
15	3a. Activitat d'avaluació	
16-17	4a. Activitat d'avaluació	

Evaluation

A partir dels objectius i dels resultats d'aprenentatge establerts, l'assignatura d'estadística bàsica serà avaluada mitjançant l'avaluació continuada que constarà de 4 activitats d'avaluació:

Activitats d'avaluació Criteris	%	Dates	O/V (1)	I/G (2)	Observacions
1a. Activitat (A1)	20	7 setmana	O		
2a. Activitat (A2)	25	9 setmana	O		
3a. Activitat (A3)	25	15 setmana	O	I	
4a. Activitat (A4)	25	16-7 setmana	O	I	

(1) Obligatòria / Voluntària (2) Individual / Grupal

Criteris d'avaluació

Totes les activitats d'avaluació són individuals i obligatòries per obtenir la qualificació final.

La no presentació a alguna de les activitats d'avaluació obtindrà una qualificació de zero en l'activitat no presentada. Cada activitat tindrà una nota de 0 a 10.

Percentatge de pes que cada activitat té en l'avaluació final

Cada activitat d'avaluació tindrà un pes del 25% en la nota final, per tant l'avaluació final serà el promig entre les quatre proves.

Es considerarà superada l'assignatura amb una nota mitjana de les quatre proves entre 5 i 10.

Aclariments

Si de les quatre activitats d'avaluació no us presenteu a més de 2 (3 o 4 proves no presentades), la nota final serà NO PRESENTAT, si el número d'activitats d'avaluació presentades es més de dos (3 o 4 proves) la qualificació final serà el promig entre quatre.

Bibliography

Recommended bibliography

- Material docent campus virtual Sakai (2021-22)
- Biblioguies Grau en Turisme <https://biblioguies.udl.cat/turisme>
- Coenders Gallar, Germà i altres. Tècniques d'Anàlisi Turística. Editorial Documenta Universitaria, 2009
- Jimenez González, Victoria y otros. Estadística para Turismo (capítols 1-10 i 14). McGraw-Hill, 2007
- Newbold, Paul, i altres. *Estadística para administración y economía*, Ed. Prentice Hall, 2008
- Lind, Marchal i Wathen. Estadística aplicada a los negocios y la economía. 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>
- <http://onlinestatbook.com>
- SPSS: ftp://public.dhe.ibm.com/software/analytics/spss/documentation/statistics/20.0/es/client/Manuals/IBM_SPSS_Statistics_Core_System_Users_Guide.pdf

