UAB
Universitat Autònoma de Barcelona

Applied Statistics in Advertising and Public Relations

Code: 103132
ECTS Credits: 6

2024/2025

Degree	Type	Year
2501935 Advertising and Public Relations	OB	3

Contact

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Teachers

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Teaching groups languages

You can view this information at the end of this
document.

Prerequisites

This course has no prerequisites; however, it is advisable to review the notes of the second year methodology
course (104899 Research Methods in Persuasive Communication).

Objectives and Contextualisation

General Objectives
- Og1. Losing the fear of statistics
- Og2. Gain confidence to ask for an appointment
- Og3. Be able to perform a whole experiment applied in the field of advertising and public relations.
- Og4. To be able to think in the future in an experimental TFG.

Specific objectives
- Oe1. To provide students with the basic statistical techniques and tools for the treatment, collection, analysis
and presentation of data.
- Oe2. To know the use, possibilities and limits of statistics as a tool for data analysis.
- Oe3. Promote the ability to interpret statistical reports derived from an investigation.
- Oe4. To know the Jamovi program and its application in advertising and public relations research.

Learning Outcomes

1. CM20 (Competence) Interpret the results of research to provide innovative solutions to problems in the field of advertising and public relations.
2. SM18 (Skill) Apply knowledge of learning, emotions, attention, and memory to the development of persuasive communication strategies and messages.
3. SM19 (Skill) Defend the methodology, results, and conclusions of a communication research project orally and in writing, using effective and inclusive language.

Content

Presentation of the course

- Philosophy

- Administration of a questionnaire (collaborative work for the course project)

- Practices and tests

- Posters of the project: descriptive and inferential statistics

- Calendar (approximation)

Theme 0

0.1. Presentation

0.2. Data bank

Theme 1. Variable types

1.1. Variables by measurement

1.2. Role Variables by roles

1.3. Variables in our area

1.4. Working with variables (cleaning database, filters, recodes, split by...)

Block 1: Descriptive statistics

Theme 2. Descriptive measures

2.1. Univariate Categorical Measures
2.2. Bivariate categorical measures
2.3 Descriptive graphs

Theme 3a. Quantitative measures

3.1. Measures of central tendency (mean, median, mode)
3.2. Measures of dispersion (variance, standard deviation, standard error...)
3.3. Forms of distribution
3.4. Normality

Theme 3b. Descriptive graphics

3.1. Error Bar Graphs
3.2. Histrogram

3.3. Density
3.4. Box plots
3.5. Violin
3.5. Dispersion

Block 2: Inferential Statistics

Theme 4. Inferential statistics

4.1. Definitions

4.2. Central Limit Theorem

4.3. Confidence Interval

4.4. Hypothesis

4.5. Type I and II errors (sample power)

Theme 5. Qualitative associations: Khi Square

5.1. Presentation: contingency tables (2x2)

5.2. Requirements

5.3. Graphics

5.4.Proceeding

5.5. Effect size

5.6. Other contingency tables

5.7. Post-hoc

5.8. How to write

Theme 6. Quantitative associations: correlations

6.1. Presentation: correlations

6.2. Requirements

6.3. Graphics

6.4. Proceeding

6.5. Effect size

6.6. Partial Correlation

6.7. How to write

Theme 7. Comparisons i: T-test

7.1. Presentation: two group comparison

7.2. Requirements

7.3. Graphics

7.4. Procedure

7.5. Effect size

7.6. How to write

Theme 8. Comparisons ii: Anova one way

8.1. Presentation: comparisons of more than two groups

8.2. Requirements

8.3. Graphics

8.4. Procedure

8.5. Effect size

8.6. How to write

Theme 9. Comparisons iii: Anova two-way

9.1. Presentation: direct effects and interactions*

9.2. Requirements

9.3. Graphics

9.4. Procedure

9.5. Effect size

9.6. How to write

Theme 10. GLM (only if we have enough time)

Theme 11. Other topics (only if we have enough time)

Note: contents might be modified upon the achievement of the stated objectives or other unforeseen.

Activities and Methodology

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
Practical exercises	37	1.48	CM20, SM18, CM20
Theory	15	0.6	CM20, SM18, CM20
Type: Supervised			
Tutoring, exercise review, etc.	7.5	0.3	CM20, SM18, SM19, CM20
Type: Autonomous			
Data analysis, group work, video viewing, mind mapping, etc.	80.5	3.22	CM20, SM18, SM19, CM20

1. Theoretical classes and exercises (quiz)

2. Practice Classes with Jamovi (quiz)

3. Vision of videos, readings and mental maps.

4. Tuition about the experimental project.

5. Gender issues will be considered.

6. The subject awaits a mature attitude of the student (not speaking to class, not using the mobile phone, etc.).

The calendar will be available on the first day of class. Students will find all information on the Virtual Campus: the description of the activities, teaching materials, and any necessary information for the proper follow-up of the subject.

The course proposes a project based on Service-Learning (ApS) methodology. Through ApS, students learn by participating in a project aimed at solving a real need in a community and thus improving people's living conditions or environmental quality. This methodology starts with the identification of a real need and involves three factors: providing a service to solve it, meaningful learning for the student, and a reflective process. Therefore, it requires collaboration with a social or environmental entity or a public institution. For more information on ApS: https://www.uab.cat/web/universitat-autonoma-de-barcelona-1345467954774.html

Annotation: Within the schedule set by the centre or degree programme, 15 minutes of one class will be reserved for students to evaluate their lecturers and their courses or modules through questionnaires.

Assessment

Continuous Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Practical tests or practice	40%	4	0.16	CM20, SM18
Projects (presentation)	20%	4	0.16	CM20, SM18, SM19
Theoretical tests (descriptive and inferential)	40%	2	0.08	CM20, SM18

This subject follows an ongoing evaluation and does not foresee a single evaluation.

The evaluation items are three:

1. Project (10% + 10%) = 20% (minimum mark to pass: 5 points in each pòster)
2. Practical test and/or exercices= 40% (minimum mark to pass: 5 points in each test)
3. Theoretical tests (20% + 20%) = 40% (minimum mark to pass: 5 points in each test)

These percentages could vary depending on the development of the subject or contingencies (Covid-19, strikes…).

Recovery

The student will have the right to recover the assignment if it has been evaluated from the set of activities whose weight is equivalent to at least 2/3 of the total assignment rating.
To be able to present for the assignment recovery, the 3.5-point note per test has to be obtained
Activities excluded from the recovery process are: exercices (includes mental maps) and the first poster of the project (20%)

In case the student performs any irregularity that can lead to a significant variation in the rating of an assessment act, this assessment act will be graded with 0 regardless of the disciplinary process that can be instructed. In the event of various irregularities in the acts of evaluation of the same subject, the final qualification of that subject will be 0.

The project will work on the gender perspective of the data.

Bibliography

BIBLIOGRAFIA Jamovi

Badiella, L., Blasco, A., Boixadera, E., Valero, O., Vázquez, A.(2021). Manual de Introducción a Jamovi: una interfaz gráfica para usuarios de R. Barcelona: SEA (UAB).

Elosua Oliden, P., & Egaña, M. (2020). Psicometría aplicada. Guía para el análisis de datos y escalas con jamovi. EHU.

Navarro, D., & Foxcroft, D. (2019). Learning statistics with jamovi: A tutorial for psychology students and other beginners (Version 0.70). *Tillgänglig online: http://learnstatswithjamovi. com [Hämtad 14 december]*.

Quesada, M., Ajenjo, M., & Griera, O. (2021). MUJADES: Manual d'us de jamovi per anàlisi de dades en estudis socials. Barcelona: UAB.

Software

Jamovi (https://www.jamovi.org/)

Language list

Name	Group	Language	Semester	Turn
(PLAB) Practical laboratories	51	Catalan	first semester	afternoon
(PLAB) Practical laboratories	52	Catalan	first semester	afternoon
(PLAB) Practical laboratories	53	Catalan	first semester	afternoon
(TE) Theory	5	Catalan	first semester	afternoon