



FICHA TÉCNICA DE LA ASIGNATURA

Datos de la asignatura	
Nombre completo	Research Methods
Código	E000012237
Cuatrimestre	Semestral
Créditos	6,0 ECTS
Carácter	Optativa
Departamento / Área	Departamento de Psicología
Responsable	Pablo Nájera
Horario de tutorías	Mon: 10:40-12:30 and Thu: 12:40 -14:30
Descriptor	Statistics is the science of data. It uses mathematical tools to collect, organize, process, and summarize data; make estimates using probability rules; and draw inferences that will affect decision-making in uncertain environments. In the professional profile of several graduates, this course has an instrumental character. It aims to introduce the student to the different phases of the research process in the context of social and health sciences, therefore, in the research methodology; in its different designs, in the construction of quantitative information, collection instruments, and in the organization and analysis of this information. The objectives of this subject are fundamentally focused on the understanding of concepts, on the decision making, in the choice of procedures and in the analysis of information.

Datos del profesorado	
Profesor	
Nombre	Pablo Nájera Álvarez
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Profesor	
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DATOS ESPECÍFICOS DE LA ASIGNATURA

Contextualización de la asignatura

Competencias - Objetivos

BLOQUES TEMÁTICOS Y CONTENIDOS





Contenidos – Bloques Temáticos

Theme 1: Methods

Topic 1: Designs

- 1.1 Variables
- 1.2 Designs
- 1.3 Sampling

Theme 2: Descriptive Statistics

Topic 1: Descriptive analysis

- 1.1 Mean
- 1.2 Standard deviation
- 1.3 Kurtosis and Skewness

Topic 2: Graphics

- 2.1 Tables
- 2.2 Charts

Theme 2: Inferencial analysis

Topic 1: Central Limit Theory

- 1.1 Central Limit Theory
- 1.2 Hypothesis test
- 1.3 p -value

Topic 2: Inferencial test

- 2.1 One mean test
- 2.2 t – test for two related / unrelated samples
- 2.3 Correlation
- 2.4 Ji-Squared
- 2.5 One-way ANOVA

METODOLOGÍA DOCENTE

Aspectos metodológicos generales de la asignatura

In Class Learning Techniques: Activities



Theoretical sessions will be delivered using Power Point presentations and focus on discussing the basic concepts underlying statistical theories along with various examples.

In these sessions, students will also work in small groups to solve exercises and quizzes to consolidate the acquired knowledge. There will be also two review sessions, that will be used to go over material delivered during the theoretical sessions.

During the practical sessions, students will be using JAMOVI to do some tasks. They will work in different problem sets.

Independent Learning Techniques: Activities

- Realization of practices and resolution of exercises.
- Reading and understanding notes and manuals.
- Search and analysis of information

RESUMEN HORAS DE TRABAJO DEL ALUMNO

HORAS PRESENCIALES			
Theory Classes	Practical Classes	Academically Guided Activities	Assessments
48	18	10	4
HORAS NO PRESENCIALES			
Self-study of Theoretical Content	Self-study of Practical Content	Group Work Exercises	Revision
40	30	20	10
ECTS CREDITS			6.0 (180 Hours)



EVALUACIÓN Y CRITERIOS DE CALIFICACIÓN

Assessment Activities	Criterion	Weighting
<p>A partial theoretical release test will be held at the first call (November).</p> <ul style="list-style-type: none"> - With less than 5 in the practical part of the exams and less than 5 in the multiple choice part (theory), the student will appear as failed. Will only calculate overall average criterion test score when in all theoretical parts (test type) have at least a 5 and in the practical parts of both partial obtain a grade equal to or greater than 5. - It is necessary to have a minimum overall grade of 5 in the evaluation criterion "exams" to be able to calculate the global mark of the subject. With Less than 5 in this rating criterion the student will appear as failed in the note end of subject. 	<ul style="list-style-type: none"> - Understanding of concepts. - Application of concepts and techniques. - Interpretation of information. 	60
<p>Several non-mandatory activities will be held during classes. The aim of those tasks is to put into test both: theoretical and practical learning</p>	<ul style="list-style-type: none"> - Understanding of concepts. - Application of concepts and techniques. - Interpretation of information. 	40

BIBLIOGRAFÍA Y RECURSOS

Bibliografía Básica

Field, A. (2013). Discovering statistics using IBM SPSS statistics. Sage

Bibliografía Complementaria

León, O. & Montero, I. (2015). Métodos de investigación en psicología y educación: las tradiciones cuantitativa y cualitativa (4ª Ed). McGrawHill

Morales Vallejo, P. (2008). Estadística aplicada a las ciencias sociales. Universidad Comillas.

Pardo, A., Ruíz M. A., & San Martín, R. (2009). Análisis de datos I en Ciencias Sociales y de la Salud. Síntesis



Field, A., Miles, J., & Field, Z. (2012). *Discovering statistics using R*. Sage.

Montero, I. & León, O. (2007). A guide for naming research studies in Psychology. *International Journal of Clinical and Health Psychology*, 7(3), 847-862.

Morales Vallejo, P. (2000). *Medición de actitudes en Psicología y Educación*. Publicaciones de la Universidad Pontificia Comillas.

Morales, P., Urosa, B., & Blanco, A. (2003). *Construcción de escalas de actitudes tipo Likert*. La Muralla.

Fink, A. (2014). *Conducting research literature reviews: from the internet to the paper*. Sage Publications.

Hamui-Sutton, A., & Varela-Ruiz, M. (2013). *La técnica de grupos focales*. Universidad Nacional Autónoma de México. [https://10.1016/s2007-5057\(13\)72683-8](https://10.1016/s2007-5057(13)72683-8)

Kawulich, B. (2015). La observación participante como método de recolección de datos. *FORUM: Qualitative social research*. 6(2). <http://www.qualitative-research.net/fqs/>

León, O. G. (2016). *Como redactar textos científicos* (4ª Ed). Garceta, Grupo Editorial.

Meyer, D. K., & Schutz, P. A. (2020). Why talk about qualitative and mixed methods in educational psychology? Introduction to special issue. *Educational Psychologist*, 55(4), 193-196. <https://10.1080/00461520.2020.1796671>



COURSE SYLLABUS

Course: **RESEARCH METHODS**

COURSE DATA

Degree	Diploma in Humanities and Global Challenges
Academic Year	2023-24
Credits	6
Course type	Elective
Departament	Department of Psychology
Language of instruction	English

SHORT DESCRIPTION

In the professional profile of Humanities and Social Sciences graduates, this course has an instrumental character. It aims to introduce the student to the different phases of the research process in the context of social and health sciences, therefore, in the research methodology, in its different designs, in the data collection process, and in the organization and analysis of these data. The objectives of this subject are fundamentally focused on the understanding of concepts, decision making, the choice of procedures and the analysis of information.

CONTENTS AND STRUCTURE

Topic 1 – Knowledge and research
Topic 2 – The scientific method
Topic 3 – Quantitative research
Topic 4 – The scientific report
Topic 5 – Qualitative research

METHODOLOGY

In class learning techniques

Sessions will combine theoretical exposition of the course contents –to provide students with a theoretical foundation and understanding of research designs in Humanities and Social Sciences– and debates –to encourage students to critically think and discuss about the process of obtaining new knowledge, the scientific method, quantitative and qualitative research, and the remaining topics of the subject.

In these sessions, students will also work individually or in small groups to solve exercises and quizzes to consolidate the acquired knowledge.

Independent learning techniques

- **Realization of practices and resolution of exercises.**
 - Reading and understanding notes and manuals.
 - Search and analysis of information.
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ASSESSMENT AND GRADING

Assessment type	Assessment criteria	Percentage
<p>MIDTERM EXAM: Theoretical test covering the topics seen in class up to the day of the exam. A minimum grade of 5 (out of 10) is required to pass the exam. Passing the midterm exam will release the student from being tested again from these topics in the final exam.</p> <p>FINAL EXAM: Theoretical test covering all the topics seen during the course. A minimum grade of 5 (out of 10) is required to pass the exam and the subject. The final grade of the exams will count for 60% of the final course grade.</p>	<ul style="list-style-type: none">- Understanding of concepts.- Application of concepts and techniques.- Interpretation of information.	60
<p>FINAL PROJECT: In small groups, students will read a scientific paper, interpret it, and prepare a brief report and an oral presentation discussing the methods and conclusions of the paper, as well as their opinion about the quality of the research.</p>	<ul style="list-style-type: none">- Understanding of concepts.- Application of concepts and techniques.- Interpretation of information.- Critical thinking.	20
<p>INDIVIDUAL ASSIGNMENTS: Individually, students will complete class assignments (e.g., essays, mini tests) related to the topics covered in the course.</p>	<ul style="list-style-type: none">- Understanding and consolidation of concepts.- Application of concepts and techniques.	20

- Committing any serious academic misconduct, such as **plagiarism** of previously published material, or **copying** in the exam or any other graded activity, **will imply not being able to pass the course in the ordinary assessment period.**
- At the beginning of the term the professor will announce the office hours for the course. Tutorials are an essential part of the development of the course, and students may attend tutorials during the course within those office times, but it is recommended that they are arranged in advance with the professor.
- Any non-face-to-face learning activity that requires the submission of an assignment/document, etc. will be submitted by the student through Moodle, always in PDF format.
- To be able to take the final exam, students must not have missed **more than one third of the classes without justification.** If this requirement is not met, the student may lose the right to be assessed both in the ordinary and extraordinary assessment period (art. 93-1 of the General Regulations). Failure to attend to the first hour of a two-hour lecture, means having missed the whole session in terms of attendance, regardless of whether or not the student the second hour.

STUDENT WORKLOAD (in hours)

CONTACT HOURS	OUTSIDE CLASSROOM	OVERALL
60	90	150

READING LIST / RELEVANT REFERENCES

Basic Bibliography

Kumar, R (2019). Research Methodology. 5th Edition. Sage Publications.

Creswell, J. W., & Creswell, J. D. (2022). Research design: Qualitative, quantitative, and mixed methods approaches. 6th Edition. Sage publications.

Complementary Bibliography

Rosenstein, L. D. (2019). Research design and analysis: A primer for the non-statistician. John Wiley & Sons.

Montero, I. & León, O. (2007). A guide for naming research studies in Psychology. *International Journal of Clinical and Health Psychology*, 7(3), 847-862.

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Privitera, G (2015). *Statistics for the Behavioral Sciences*. Sage Publications.

Tolmie, A (2011). *Quantitative methods in educational and social research using SPSS* [electronic resource. Maidenhead: Open University Press.

Davis, C (2013). *SPSS step by step: essentials for social and political science*. Policy Press, 2013.

Field, A. (2013). *Discovering statistics using IBM SPSS statistics*. Sage Publications.