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Faculty of Education, Psychology and Sport Science
GENERAL SPECIFICATIONS

Subject Data

Name:
Métodos y Técnicas de Investigación en Psicología
English name:
Research Methods and Techniques in Psychology

Code:	**Type:**
202310204	Mandatory /Obligatoria

Hours:			
	Total	**In class**	**Out class**
Time distribution	150	45	105

ECTS:				
Standard group	**Small groups**			
	Classroom	**Lab**	**Practices**	**Computer classroom**
3,33	1,17			

Departments:	**Knowledge areas:**
Psicología Clínica y Experimental / Clinical and Experimental Psychology	Metodología de las ciencias del comportamiento / Methodology of the behavioral sciences
Year:	**Semester**
1st year	2nd semester (spring)

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TEACHING STAFF

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Others Data (Tutoring, schedule...)

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Please check the links below and the Virtual course (Moodle) for potential changes or updates

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OFFICE HOURS / TUTORÍAS:
http://uhu.es/fedu/?q=facultad-departamentos

OFFICIAL SCHEDULE (DEGREE IN PSYCHOLOGY) / HORARIOS:
http://uhu.es/fedu/index.php?q=iacademica-grapsic&op=horarios

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SPECIFIC INFORMATION OF THE COURSE

1. Contents description:

1.1 In English:

General introduction to science and the scientific method in Psychology,

Qualitative methods. Case studies, ethnographic studies and action-research. Data collection and analysis in qualitative studies. Quality guarantees.

Observational method. Characteristics and classification of observational methods. Selection of time and participants. Conduct definition and recording. Data analysis. Quality guarantees.

Survey method. Characteristics of the surveys. Sampling in survey research. Data collection procedures. Questionnaires as data collection instruments in survey research. Survey study designs. Data analysis in studies through surveys. Quality guarantees.

Experimental method. The logic of experimentation. Experimental design concept. Control and Manipulation. External and internal validity. Phases of an experiment. Cross-sectional and longitudinal strategy. Interaction between variables. Data analysis in experimental studies. Quality guarantees.

The quasi-experimental method. Characteristic. Control of variables and assignment of experimental units. Quasi-experimental designs. Data analysis in quasi-experimental studies. Quality guarantees.

Ex post facto method. Characteristics. Retrospective and prospective ex post facto studies: classification. Collection and analysis of data in ex post facto studies. Quality guarantees.

1.2 In Spanish:

Introducción general a la ciencia y al método científico en Psicología.

Métodos cualitativos. Estudios de caso, etnográficos y de acción-investigación. Recogida y análisis de datos en estudios cualitativos. Garantías de calidad.

Método observacional. Características y clasificación de los métodos observacionales. Selección de tiempos y participantes. Definición y registro de la conducta. Análisis de datos. Garantías de calidad.

Método de encuesta. Características de las encuestas. Muestreo en la investigación mediante encuestas. Procedimientos de recogida de datos. Los cuestionarios como instrumentos de recogida de datos en la investigación con encuestas. Diseños de estudios mediante encuesta. Análisis de datos en estudios mediante encuestas. Garantías de calidad.

Método experimental. La lógica de la experimentación. Concepto de diseño experimental. Control y Manipulación. Validez externa e interna. Fases de un experimento. Estrategia transversal y longitudinal. Interacción entre variables. Análisis de datos en estudios experimentales. Garantías de calidad.

2. Background:

2.1 Situation within the Degree:

Research Methods and Techniques in Psychology is a mandatory course in the second semester of the first year of the degree in psychology. In this course the student will learn the basic features and uses of the most used research methods in the behavioral and health sciences: observation, surveys, experiments, etc. Students will be presented with theoretical lectures and real examples of investigations. They will have to develop their research skills through both individual and group assignments. The contents and activities in this course are designed to encourage a critical assessment of the different research methods, their strengths, and limitations.

2.2 Recommendations

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There are no mandatory requirements. However, the following skills or interests are highly recommended:

- Completing the course *Fundamentals of Methodology in Psychology* in the fall semester.
- Having a general background knowledge of research in the behavioral sciences.
- Personal computer skills (writing documents, use of spreadsheets, internet search, etc.).
- Interest in research.
- Interest in improving your communication skills in English.

3. Objectives (as result of teaching):

After taking this course, students will develop the transversal and specific competencies described above. Learning these competences will allow students to understand the relevance of scientific research and its outcomes in their future professional practice. Also, students will be able to plan and carry out the basic features of the research methods described during the course as part of a research group. On the other hand, the different educational activities aim to encourage and develop several transversal competencies of the Grade in Psychology, such as teamwork abilities, science communication skills, and the relevance of ethical issues in Psychology.

4. Skills to be acquired

4.1 Specific Skills:

At the end of this course the student will develop the following transversal and specific skills:

- S1. Know and understand the characteristics, functions, contributions and limitations of the different theoretical models in Psychology
- S6. Know and understand the research methods and designs, as well as the data analysis and interpretation techniques in Psychology
- S15. Observe the deontological commitments of Psychology
- CS1. Effectively get information from books and specialized journals and other documentation sources
- CS2. Elaborate written and spoken reports
- CS3. Know and observe the deontological commitments of Psychology
- CS4. Know the characteristics of the scientific method and the steps of scientific research
- CS5. Identify psychological variables
- CS6. Identify the appropriate research methodology for a research objective in Psychology
- Communicate scientific results

4.2 General, Basic or Transversal Skills:

BASIC COMPETENCES:

- BC1. Demonstrate to understand and have acquired knowledge about an area of study that starts from basic Secondary Education, and is often at supported by advanced textbooks, but also includes some aspects that involve knowledge related to the forefront of their field of study.
- BC2. Know how to apply their knowledge to their work or vocation in a professional way. They should also possess the skills that are usually demonstrated through the elaboration and defence of arguments and in problem solving within their area of study.
- BC3. Gather and interpret relevant data (usually within their area of study) to make judgments that include a reflection on relevant social, scientific or ethical issues.
- BC4. Be able to convey information, ideas, problems and solutions to both specialised and non-specialised audiences.
- BC5. Develop the learning skills required to undertake further studies with a high degree of autonomy.
- BC6. Develop the ability to embrace their professional activity and formation by abiding the Deontological Code of Psychology, including, among other more specific principles, respecting and promoting other people´s fundamental rights, equality among them, universal accessibility to different goods and services and promoting democratic values and a culture of peace.

TRANSVERSAL COMPETENCIES:

- TC1. Be completely fluent in Spanish, mastering the different styles and the specific languages required to develop and communicate the acquired knowledge in the scientific and academic environment.
- TC2. Develop a critical attitude, being able to analyse and synthesize.
- TC3. Develop an attitude of inquiry that permanently enables to review and deepen in the knowledge.
- TC4. Acquire Computer and Information Skills (CI2) and apply them working.
- TC5. Master strategies for active job search and entrepreneurship.
- TC6. To promote, respect and safeguard human rights, democratic values, social equality and environmental sustainability, without discrimination on the basis of birth, race, sex, religion, opinion or other personal or social circumstances.

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5. Training Activities and Teaching Methods

5.1 Training Activities:

- Large group classes
- Small group classes
- Autonomous and/or supervised work

5.2 Teaching Methods:

- Lectures: including theoretical expositions and presentations, but also problem solving, debates, etc.
- Practical classes: (either in the classroom or in the computer room, etc.); case examples or problem solving; visits; document analysis (readings, audio-visual material, etc.)
- Direct tutoring: seminars individual or smaller group assignments, etc.

5.3 Development and Justification:

- Large group classes: The teacher will make a presentation of the theoretical content. Along with this theoretical exposition, practical activities will be undertaken to enhance the learning of the concepts presented. A list of tasks shall also be assessed to strengthen the knowledge acquired and that will be proposed at the beginning of the course
- Small group classes: small group classes will be held, in part, in the computer rooms of the Campus del Carmen. In every practice the teacher initially will set out the objectives of the practice and the tasks in it. Students should make use of specific software to solve the tasks. The practices will end with a discussion of the results obtained to strengthen the tools and methodological concepts used
- Autonomous and/or supervised work: individual or collective supervision, self-evaluation activities, use of virtual forums, solving exercises, documentation, and bibliography search, reading, document analysis, research design or planning, elaboration of individual or collective reports, etc.
- Direct tutoring: Students shall interview the teacher, in his/her office hours, to answer questions, request additional guidance, correct exercises, etc. Tutoring schedules will be published at the start of the course

6. Detailed Contents

BLOCK 1. General topics

Unit 1: Introduction
Scientific theories and their support: the systematization of knowledge acquisition through the scientific method. Steps of the scientific inquiry: research question, planning, data gathering and analysis, conclusions and communication. Degree of complexity of knowledge: descriptive, relational, predictive and causal. Requirements for each type of knowledge. Research methods or schemes.

BLOK 2. Unitary studies

Unit 2: Qualitative methods
Case studies: objectives, characteristics, type of studies, data collection and analysis.
Ethnographic studies: objectives, characteristics, type of studies, data collection and analysis.
Action Research: objectives, characteristics, type of studies, data collection and analysis. Quality assurance in studies employing qualitative methods.

Unit 3: Observational methods
Objective and characteristics. Type of observational studies. Units of analysis: subjects vs individuals. Molar-Molecular definitions of behavior. Ad libitum registries, narrative registries and arbitrary observation codes: Which one is more arbitrary? Participant selection: focal and multifocal sampling. Time sampling and event-sampling. Selection of time units. Descriptive and sequential data analysis. Quality criteria: Validity and reliability of observations. Threats to validity and techniques to avoid them.

Unit 4. Survey methods
Objectives and characteristics. Definition of population and sample. Sample of participants and sample of objects. Subject sampling procedures. Instruments: Surveys, questionnaires, scales and tests. Selection of instruments. Data collection procedures. Research designs using surveys. Data analysis in survey research. Quality criteria: reliability and validity. Threats to validity and techniques to avoid them.

BLOCK 3. Relational studies

Unit 5. Experimental method with groups of subjects
Objectives. The logic of experiments. Concept of experimental design. Manipulation, measurement and control. The "Max-Min-Con" rule. Internal and external validity: threats and techniques to avoid them. Phases of an experiment. Cross-sectional and longitudinal strategies. Interaction between variables. Classification of experimental designs with groups of subjects. Data analysis in experimental studies. Quality assurance.

Unit 6. Single case experimental designs
Objectives and characteristics. Pre-experimental basic design, AB. Internal and external validity in single case experimental designs. Reversal designs. Non reversal designs. Data analysis in n-of-one experimental designs. Quality assurance.

Unit 7. Quasi-experimental methods
Objective and characteristics. Control of extraneous variables and assignment of experimental units. Types of quasi-experimental designs. Data analysis in quasi-experimental designs. Quality assurance.

Unit 8. Ex post facto methods
Characteristics. Prospective and retrospective ex post facto studies: classification. Data collection and analysis in ex post facto studies. Quality assurance.

BLOCK 4. Practical sessions

Unit 9. Writing research reports: scientific writing workshop
Characteristics of scientific writing. Scientific and literary styles.

Unit 10. Practical sessions in research design in Psychology

7. Bibliography

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7.1 Basic Bibliography:

- Shaughnessy, J. J., Zechmeister, E. B., & Zechmeister, J. S. (2014). *Research Methods in Psychology* (10th ed.). New York: McGraw-Hill

7.2 Additional Bibliography:

- American Educational Research Association, American Psychological Association, National Council on Measurement in Education (2014). *Standards for educational and psychological testing*. Washington, DC: American Educational Research Association.
- Burke, J. (2004). *Educational research: quantitative, qualitative and mixed approaches*. Boston: Pearson Education.
- Davies, M.B. (2007). *Doing a successful research project: using qualitative or quantitative methods*. Basingstoke: Palgrave Macmillan.
- Creswell, J.W. (2008). *Educational Research. Planning, conducting and evaluating quantitative and qualitative research*. New Jersey: Pearson International
- Hand, D.J. (2004). *Measurement theory and practice: the world through quantification*. London: Arnold
- Shaughnessy, J. J., Zechmeister, E. B., & Zechmeister, J. S. (2012). *Research Methods in Psychology* (9th ed.). New York: McGraw-Hill

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8. Systems and Assessment Criteria

8.1 System for Assessment:

- Written or oral exam
- Other evaluation tasks (continuous evaluation, presentations, assignments, practical work, assistance, etc.)

8.2 Assessment Criteria and Marks:

8.2.1 Examinations Convocatory I

Continuous evaluation is the default for all students (except those who meet the terms specified in article 8 of the evaluation regulation of the University of Huelva).

In continuous evaluation assistance is mandatory for the students in this modality. A maximum of three justified absences will be allowed (with the proper certification); in the case of a higher number of absences, the student will not be evaluated in Convocatory I.

Students must score at least 5 out of 10 points to pass the course.

1) Final exam (6/10 points max.):

a) Format: 30 multiple-choice items with three answer options. Only one of the options will be correct
b) Weight: This test counts 6 out of 10 points in the final score of the course
c) Correction: Each correct answer will add a point while each error will discount half a point. The maximum score (10) will be achieved with 30 points and a score of 5 will be obtained if the student gets 15 points in the multiple-choice test
   The score (between 0-10) is weighted as follows:
   Weighed score = test score * 6/10
d) Content: 80% of the multiple-choice test consists of items related to the theoretical block (lessons 1, 2 and 3), while 20% left consist of items related to the practical contents (lessons 4, 5 and 6)
e) Assessment: to pass the multiple-choice test it is necessary to get a score of 5 out of 10 (or 3 out of 6 when considering the weighted score). If the student fails the test, the student will have to repeat it in the Convocatory II. In this case, the score of the research project (see section 4 below) will not be added
f) The multiple-choice test will have the same format in Convocatory I and Convocatory II. In case of failing this test in Convocatory I the score will not be saved until Convocatory II, so the student will have to repeat it

2) Participation in a group research project (4/10 points max.).

a) It counts 4 out of 10 in the final score (presentation of written report: 3 points, oral presentation: 1 point)
b) The work group will be working on the research project from the beginning of the course to Convocatory I. Those students who give up the group work will get a 0 score in this part of the course
c) Format:
   i. The work group will be compound by 4-5 students
   ii. The 4 possible points to get in the research project are distributed in:
      - 3 points: Development of a research and communication of its results through a written research report presented in APA format
      - 1 point: Oral communication of the research report to the classmates

Evaluation in case of incidents: The evaluation in case of incidents will consist of an open question exam (see Article 9 of the evaluation regulation of the University of Huelva).

8.2.2 Examinations Convocatory II

a) In case of failing the course in Convocatory I, the student could pass it in Convocatory II. The student must pass the multiple-choice test. The score of the research project (paper + oral communication) developed in Convocatory I will be added in Convocatory II if the student gets, at least, a 5 out of 10 points in the multiple-choice test
b) The student in the "Classroom based modality" that fail in Convocatory I can take the exam in Convocatory II under the same modality or choose to switch to the "Single final evaluation modality"

8.2.3 Examinations Convocatory III

Same as in Convocatory II

8.2.4 Extraordinary Convocatory

Same as in Convocatory II

8.3 Single Final Evaluation:

This modality is designed for those students who certified the circumstances specified by article 8 of the evaluation regulation of the University of Huelva.

a) This modality implies two exams:
    a. Multiple choice test. This test will be equal to those in "Classroom based modality".
    b. To pass the multiple choice test the student must get 5 out of 10 points. This score will count 7 out of 10 in the final score of the course. To do this, the score will be weighted as follows: Weighed score = test score * 7/10.
    c. If the multiple-choice test is failed, the student will have to repeat it in a later convocatory.
b) Open questions exam.
    a) This exam consists of different open questions related to research methods
    b) The maximum score in this exam will be 3 points
    c) The score in this exam WILL NOT be saved until Convocatory II. If the student fails the multiple-choice test in Convocatory I, both the open questions exam and the multiple-choice test, will be repeated in Convocatory II.

Evaluation in case of incidents: The evaluation in case of incidents will consist of an open question exam (see Article 9 of the evaluation regulation of the University of Huelva).