

1. BASIC INFORMATION

Course	RESEARCH METHODS IN PSYCHOLOGY
Degree program	PSYCHOLOGY
School	Biomedical and Health Sciences
Year	2 nd
ECTS	6
Credit type	Mandatory
Language(s)	English
Delivery mode	Campus-based
Semester	First
Academic year	2020-2021
Professors	Teresa Diéguez, PhD and Emilio Verche, PhD (coord.)

2. PRESENTATION

“Research Methods in Psychology” is taught in the first semester of the second year of the Bachelors’ degree in Psychology.

Psychology is the scientific study of behavior. In this course, you will learn the critical skills to evaluate others’ research and conduct your own scientific research in Psychology.

3. COMPETENCIES AND LEARNING OUTCOMES

Core competencies:

- CBM1: Students should be able to demonstrate knowledge and understanding in an area of study that has its basis in general secondary education, and that, whilst supported by advanced textbooks, also includes some aspects that entail an acquaintance with the latest developments in their field of study.
- CBM2: Students should be able to apply their knowledge to their work or vocation in a professional way, and should possess the competencies that are usually demonstrated when preparing and defending arguments and resolving problems in their area of study.
- CBM3: Students should be able to gather and interpret relevant data (usually in their area of study) to make judgments that involve considering important social, scientific or ethical issues.
- CBM4: Students should be able to transmit information, ideas, problems and solutions to both specialized and non-specialized audiences.

- CBM5: Students should have developed the learning skills necessary to undertake further studies with a high degree of autonomy.

Core competencies in Psychology:

- CBPS2: Knowing the basic laws of different psychological processes in the field of Health Psychology.
- CBPS4: Knowing the biological bases of human behavior and of psychological functions.
- CBPS5: Knowing the psychosocial principles of the functioning of groups and organizations.

Cross-curricular competencies:

- CT4: Analysis and synthesis skills: The ability to break down complex situations into their constituent parts, and also to assess other alternatives and approaches in order to find the best solutions. Synthesis seeks to reduce complexity in order to facilitate understanding and/or problem solving.
- CT5: Capacity to apply knowledge: The ability to use knowledge acquired in academic contexts in situations that resemble as closely as possible the reality of the chosen future profession.
- CT8: Information management: The ability to find, select, analyze, and integrate information from different sources.
- CT11: Planning and time management: The ability to set goals and choose the means to achieve them, using time and resources effectively.
- CT12: Critical reasoning: The ability to analyze an idea, phenomenon or situation from different points of view and take a personal approach to it based on rigor and objective reasoning, and not on intuition.
- CT13: Problem solving: The ability to resolve a confusing issue or a complicated situation that stands in the way of achieving a goal and where there is no predefined solution.
- CT16: Decision making: The ability to make a choice between the existing alternatives in order to effectively resolve different situations or problems.
- CT17: Teamwork: The ability to actively participate and cooperate with other people, areas and/or organizations in order to achieve common goals.
- CT18: Use of information and communication technologies (ICT): The ability to use information and communication technologies effectively as a tool for finding, processing and storing information, as well as for developing communication skills.

Specific competencies:

- CE4: Being able to describe and measure variables (personality, intelligence and other aptitudes, attitudes, etc.) and cognitive, emotional, psychobiological and behavioral processes.
- CE5: Being able to identify differences, problems and needs.
- CE6: Being able to diagnose in accordance with the criteria of the profession
- CE12: Knowing how to select and administer instruments, products and services, and being able to identify the individuals and groups concerned.
- CE13: Knowing how to design and adapt instruments, products and services, according to requirements and restrictions.

- CE14: Knowing how to check and validate instruments, products and services (prototypes or pilot tests).
- CE25: Knowing how to give precise and appropriate feedback to care recipients.
- CE26: Being able to prepare verbal and written reports.
- CE28: Being able to perform professional duties using the English language, with both specialist and non-specialist audiences.

Learning outcomes:

- LO1: Design a research in Psychology
- LO2: Analyze the importance of research in professional practice and its contribution to knowledge development.
- LO3: Identify the different problems in psychology that can be approached using quantitative and/or qualitative methods.
- LO4: Identify the different kinds of qualitative and quantitative research
- LO5: Describe the phases of a research project.

The following table shows the relationship between the competencies developed during the course and the learning outcomes pursued:

Competencies	Learning outcomes
CBM1 CE4, CE25, CE26	LO1: To design a research in Psychology
CBM2 CBPS2 CE6, CE28	LO2: To analyze the importance of research in professional practice and its contribution to knowledge development.
CBM4 CBPS4, CBPS5 CE5	LO3: To identify the different problems in psychology that can be approached using quantitative and/or qualitative methods.
CBM3 CE12, CE13, CE14	LO4: To identify the different kinds of qualitative and quantitative research.
CBM5 CBPS2 CE13	LO5: To describe the phases of a research project.

4. CONTENT

UNIT 1: Introduction to Research Methods in Psychology

Psychology and science. Scientific method. Hypothetic-deductive method. Theories, laws and hypothesis. Scientific research. Quantitative vs. qualitative approaches.

UNIT 2: Measurement in Psychology

Variables. Psychological constructs. Operational definitions. Reliability. Validity. Types of validity. Samples. Scales of measurement. Hypothesis testing. Size effect.

UNIT 3: Experimental methods

Demonstrating cause and effect. Source of variance. Between-subjects designs. Within-subjects designs. Factorial designs. Single-subject experiments. Validity in experiments.

UNIT 4: Quasi-experimental methods

The Nonequivalent Control Group Design. Interrupted Time-Series Designs. Validity in Quasi-experiments.

UNIT 5: Ex post facto designs

Retrospective studies. Prospective studies. Developmental designs. Validity in ex post facto designs.

UNIT 6: Survey research

Characteristics of surveys. Sampling in survey research. Survey methods. Survey-research designs. Creating a survey. Correlation and causality.

UNIT 7: Observational methods

Observational methods. Sampling behavior. Direct observational methods. Indirect observational methods. Recording behavior. Analysis of observational data. Validity in observation.

UNIT 8: Qualitative approaches in Psychology

Qualitative perspective. Qualitative data gathering. Types of qualitative method.

UNIT 9: Communicating the Results of Research in Psychology

General guidelines. Structure of a research report. Presentations and posters

5. TEACHING-LEARNING METHODOLOGIES

The types of teaching-learning methodologies used are indicated below:

- Lectures
- Case methods
- Oral presentations
- Problem-based learning
- Use of computer programs

6. LEARNING ACTIVITIES

Listed below are the types of learning activities and the number of hours the student will spend on each one:

Campus-based mode:

Learning activity	Number of hours
Practical activities	20 h
Debates	10 h
Lectures	20 h
Self-study	50 h
Case analysis	30 h
Formative assessment	5 h
Research	10 h
Tutorials	5 h
TOTAL	150 h

7. ASSESSMENT

Listed below are the assessment systems used and the weight each one carries towards the final course grade:

Assessment system	Weight
Exam	50%
Case analysis and problem-solving	20%
Project: Report	15%
Project: Portfolio	5%
Project: Poster	10%

When you access the course on the *Campus Virtual*, you'll find a description of the assessment activities you have to complete, as well as the delivery deadline and assessment procedure for each one.

7.1. First exam period

To pass the course in the first exam period, you must obtain a final course grade of at least 5 out of 10 (weighted average).

It is required to obtain a grade of at least 5 out of 10 in the exam to pass the course. It is also required to obtain an average grade of at least 5 out of 10 in the assignments and project.

7.2. Second exam period

To pass the course in the second exam period, you must obtain a final grade of at least 5 out of 10 (weighted average).

It is required to obtain a grade of at least 5 out of 10 in the exam to pass the course. It is also required to obtain an average grade of at least 5 out of 10 in the assignments and project

The student must submit the activities not successfully completed in the first exam period after having received the corresponding corrections from the professor, or those that were not submitted in the first place.

8. SCHEDULE

This table shows the delivery deadline for each assessable activity in the course:

Assessable activities	Deadline
Assignment 1: Pseudoscience in Psychology	5 th October
Assignment 2: Critical analysis of a scientific paper	2 nd November
Assignment 3: Design a survey	30 th November
Project: report and poster	11 th – 15 th January
Exam	25 th – 29 th January

This schedule may be subject to changes for logistical reasons relating to the activities. The student will be notified of any change as and when appropriate.

9. BIBLIOGRAPHY

Textbooks:

- Coolican, H. (2014). *Research methods and statistics in psychology*. New York: Psychology Press.
- Goodwin, C. J. (2010). *Research in Psychology. Methods and Design* (6th edition). Hoboken, NJ: Wiley.
- Shaughnessy, J. J., Zechmeister, E. B., y Zechmeister, J. S. (2012). *Research Methods in Psychology*. New York: Mc Graw-Hill.

Supplementary:

- American Psychological Association (2010). *Publication manual of the American Psychological Association* (6th Edition). Washington, DC: Author.

- Creswell, J. W. (2014). *Research design: qualitative, quantitative, and mixed methods approaches*. Washington DC: Sage
- Haslam, S. A., & McGarty, C. (2014). *Research methods and statistics in psychology*. Washington DC: Sage.
- Montero, I., & León, O. G. (2007). A guide for naming research studies in Psychology. *International Journal of Clinical and Health Psychology*, 7(3), 847–862.
- Morling, B. (2012). *Research methods in psychology: Evaluating a world of information*. New York: Norton.
- Shadish, W.R., Cook, T. D., & Campbell, D. T. (2002). *Experimental and quasi-experimental designs for generalized causal inference*. Chicago: Houghton Mifflin Company
- Stangor, C. (2014). *Research methods for the behavioral sciences*. Stamford (CT): Cengage Learning.
- Stanovich, K.E. (2012). *How to think straight about psychology*. Pearson.

10. DIVERSITY MANAGEMENT UNIT

Students with specific learning support needs:

Curricular adaptations and adjustments for students with specific learning support needs, in order to guarantee equal opportunities, will be overseen by the Diversity Management Unit (UAD: Unidad de Atención a la Diversidad).

It is compulsory for this Unit to issue a curricular adaptation/adjustment report, and therefore students with specific learning support needs should contact the Unit at unidad.diversidad@universidadeuropea.es at the beginning of each semester.