

### SCHOOL OF HEALTH AND SCIENCES

#### **SYLLABUS**

TITLE: Correlational and Experimental Research Methods

CODE: PSI 425

**PREREQUISITE:** Last year of studies

CREDITS: 3 credits | 45 contact hours | 1 term

#### DESCRIPTION

This course fosters the theoretical discussion of the assumptions of science, its research, and contemporary polemics. Likewise, it involves an approach to the theoretical field of Psychology and its research. The course also assumes a critical perspective on the work of science and the multiplicity of its explanations.

### **JUSTIFICATION**

Human beings have historically tried to explain and order (understand the term in its broadest sense) the environment that surrounds them. Scientific research "orders" knowledge and helps signify future events. From this perspective, they provide a scheme to understand ourselves and the set of circumstances and/or conditions in which we live. Therefore, every student interested in the theoretical field of Psychology should know these fundamentals/basic principles to make the best use of them.

### **COMPETENCES**

The course develops the following competences in students:

- Research and exploration
- Communication

### **OBJECTIVES**

After completion of the course, students will be able to:

1. Know the fundamentals of science and research.

- 2. Recognize the research process.
- 3. Critically analyze scientific research on human behavior.
- 4. Understand the role of methods and techniques in the abstraction process in Psychology.
- 5. Identify basic research designs in Psychology.
- 6. Write a research proposal.
- 7. Conduct a supervised investigation.

# **CONTENTS**

- Science and research
  - A. Scientific research as a process of inquiry and construction of an explanation
  - B. The fundamental role of theory in research
  - C. The construction of the scientific object in Psychology
- II. The research process
  - A. The formulation of research problems and the function of the hypothesis
  - B. Theoretical construction and assumptions
    - 1. Theoretical models
  - C. Control techniques
    - 1. Extraneous variables
  - D. Instruments, equipment, and other tools
- III. The basic research designs in Psychology: causal and correlational, among others
  - A. Corresponding statistical analyses
    - 1. T test
    - 2. Pearson correlation
  - B. Probability theory
    - 1. Concept of normality

## **METHODOLOGY**

The following strategies from the active learning methodology are recommended:

- Lectures
- Individual and group discussions
- Practical and statistical exercises

### **EVALUATION**

Compositions	25%
Practical work	30%
Participation	15%
Final project or exam	<u>30%</u>
TOTAL	100%

### LEARNING ASSESSMENT

The institutional assessment rubric is applied to the course's core activity.

### **BIBLIOGRAPHY**

- American Psychological Association. (2020). *Publication Manual of the American Psychological Association*. (7<sup>th</sup> ed). American Psychological Association.
- Aron, A., Aron, E. N. (1997). Statistics for the Behavior and Social Sciences: A Brief Course. Prentice Hall.
- Cohen, N. & Gómez, G. (2019). *Metodología de investigación, ¿para qué? La producción de los datos y diseños*. Editorial Teseo.
- Hernández Sampieri, R., Mendoza Torres, C. P. (2014). *Metodología de la investigación: las rutas cualitativa, cuantitativa y mixta* (6<sup>th</sup> ed.). McGraw Hill Interamericana.
- Junta Examinadora de Psicólogos de Puerto Rico. (1992). Reglamento y código de ética de la Junta Examinadora de Psicólogos de Puerto Rico. Junta Examinadora de Psicólogos de Puerto Rico.
- Kantowitz, B., Roediger, H. & Elmo, D. (2014). *Experimental Psychology* (10<sup>th</sup> ed.). Cengage Learning. SAGE.
- Mac Bride, D. M. (2019). The Process of Research in Psychology. Sage Publications.
- Mertens, D. M. (2005). Research and Evaluation in Education and Psychology (2<sup>nd</sup> ed.).

- Sage publications.
- McGuigan, F.J. (1997). Experimental Psychology: Methods of Research (7<sup>th</sup> ed.)

  Prentice-Hall, Inc.
- Myers, A., Hansen, C. (2011). Experimental Psychology (7th ed.). Cengage Learning.
- Morling, B. (2017). *Methods in Psychology* (3<sup>rd</sup> ed.). WW Norton & Company.
- Otto, Z. (1992). Psicología Experimental. McGraw Hill.
- Perezcoffie, J. (2002). Psicología Experimental. Publicaciones Gaviota.
- Piscoya Hernández. L. (1987). *Investigación científica y educacional. Un enfoque epistemológico*. Amaru Editores.
- Shaughnessy, J. Zechmeister, E. & Zechmeister, J. (2014). *Research Methods in Psychology*. (10<sup>th</sup>. ed.). McGraw Hill.
- Vélez, Luz M. (1991) Elementos que deben examinarse cuando se realiza una investigación. Monografía no publicada.
- Vélez, Luz M. (1991) Reflexiones en torno a la investigación psicológica contemporánea. Monografía no publicada.
- Vélez, Luz M. (1991) La constitución discursiva del sujeto: un análisis psicológico.

  Monografía no publicada.
- Zechmeister, E. B., Posavac, E. J. (2003). *Data Analysis and interpretation on the behavioral sciences*. Wadsworth/Thomson Learning.

For more information resources related to the course's topics, access the library's webpage <a href="http://biblioteca.sagrado.edu/">http://biblioteca.sagrado.edu/</a>

## REASONABLE ACCOMMODATION

For detailed information on the process and required documentation you should visit the corresponding office. To ensure equal conditions, in compliance with the ADA Act (1990) and the Rehabilitation Act (1973), as amended, any student in need of reasonable

accommodation or special assistance must complete the process established by the Vice Presidency for Academic Affairs.

### **ACADEMIC INTEGRITY**

This policy applies to all students enrolled at Universidad del Sagrado Corazón to take courses with or without academic credit. A lack of academic integrity is any act or omission that does not demonstrate the honesty, transparency, and responsibility that should characterize all academic activity. Any student who fails to comply with the Honesty, Fraud, and Plagiarism Policy is exposed to the following sanctions: receive a grade of zero in the evaluation and / or repetition of the assignment in the seminar, a grade of F (\*) in the seminar, suspension, or expulsion as established in the Academic Integrity Policy effective in November 2022.

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