VNIVERSITAT DE VALÈNCIA

Course Guide
44860 Methodology: Master thesis

COURSE DATA

Data Subject	
Code	44860
Name	Methodology: Master thesis
Cycle	Master's degree
ECTS Credits	4.0
Academic year	2024 - 2025

Study (s)

Degree	Center	Acad. year	Period
2235 - Master's degree Erasmus Mundus on Work, Organizational and Personnel Psycho	Faculty of Psychology and Speech Therapy	1	First term

Subject-matter

Degree	Subject-matter	Character
2235 - Master's degree Erasmus Mundus on Work, Organizational and Personnel Psycho	10 - Research training	End Labour Studies

Coordination

Name	Department
GONZALEZ ROMA, VICENTE	306 - Social Psychology
TOMAS MARCO, MARIA INES	267 - Behavioral Sciences Methodology

SUMMARY

This course gives the students the opportunity to get deeper in the use and understanding of research methods directly related to the specific methodologies they are using in their research projects. In this sense, the course aims to equip students with the guidance of a methodologist that can advice them with the methodological aspects of their research project. So that, although some methodological techniques are proposed, it has a flexible content structure and changes are considered taking into account the specific demand of the students.

A special emphasis will be put on the need to take into consideration contextual and cultural issues when designing a WOP-P study. Measurement issues will be addressed when cultural comparison is the focus. Regarding statistical data analysis, attention will be paid to how to test the role of contextual and cultural variables, when needed.

PREVIOUS KNOWLEDGE

Relationship to other subjects of the same degree

There are no specified enrollment restrictions with other subjects of the curriculum.

Other requirements

This course assumes that graduated students have a working knowledge of basic statistics, including descriptive statistics (central tendency, variability), and covariance, correlation and simple regression.
It is also assumed that students are able to conduct the statistical analyses covered in the Methodology Explanatory course such (first year, first semester), such as exploratory factor analysis and regression analysis.

2235 - Master's degree Erasmus Mundus on Work, Organizational and Personnel Psycho

- Students should apply acquired knowledge to solve problems in unfamiliar contexts within their field of study, including multidisciplinary scenarios.
- Students should be able to integrate knowledge and address the complexity of making informed judgments based on incomplete or limited information, including reflections on the social and ethical responsibilities associated with the application of their knowledge and judgments.
- Students should communicate conclusions and underlying knowledge clearly and unambiguously to both specialized and non-specialized audiences.
- Students should demonstrate self-directed learning skills for continued academic growth.
- Students should possess and understand foundational knowledge that enables original thinking and research in the field.
- Que los estudiantes sean capaces de proporcionar retroalimentación a diferentes actores en el contexto de la psicología del trabajo, de las organizaciones y de los recursos humanos.
- Que los estudiantes sean capaces de elaborar informes en el contexto de la psicología del trabajo, de las organizaciones y de los recursos humanos.
- Que los estudiantes sean capaces de revisar la literatura, formular hipótesis y poner a prueba dichas hipótesis en psicología del trabajo, de las organizaciones y de los recursos humanos.
- Que los estudiantes sean capaces de formular preguntas de investigación, estrategias de investigación, cuestiones de diseño de investigación (fiabilidad, validez, etc.) y cuestiones de diseño de investigación en psicología del trabajo, de las organizaciones y de los recursos humanos.

- Que los estudiantes sean capaces de recopilar datos para la investigación en psicología del trabajo, de las organizaciones y de los recursos humanos.
- Que los estudiantes sean capaces de analizar datos de investigación en psicología del trabajo, de las organizaciones y de los recursos humanos.
- Que los estudiantes sean capaces de redactar trabajos de investigación en psicología del trabajo, de las organizaciones y de los recursos humanos.
- Que los estudiantes sean capaces de presentar oralmente trabajos de integración en psicología del trabajo, de las organizaciones y de los recursos humanos.

At the end of the course, the students will be able to:

1. Plan a research in WOP-P.

2. Understand the need of taking into consideration contextual and cultural factors when carrying out research in WOP-P.

3. Get an idea and to find out what has been done through a literature search.

4. Turn this idea into a research problem, that is, the student will be able to formulate the hypothesis under study, and to identify the dependent and independent variables implied in the study.

5. Select the appropriate research design, that is, the student will be able to 1) operationalize the variables involved in the study, 2) select the measures and measurement instruments 3) select the appropriate sample; 4) test the validity and reliability of the selected measurement instruments in this sample (when culture effects are an issue special attention will be paid to measurement comparability across cultures); and 5) select the proper analysis for testing the research hypothesis.

6. Carry out these analyses, and to interpret the outputs (when culture is an issue special attention will be paid to the moderating role of this variable).

7. Examine and compare critically his/her results with the existing scientific literature in the field.

8. Make an oral presentation of his/her research.

9. Write up his/her research.

DESCRIPTION OF CONTENTS

1. Methodology

1. Introduction to multivariate analysis in WOP-P

2. Reliability of measurement instruments.

3. Validity of measurement instruments.
Exploratory factor analysis with SPSS

Confirmatory factor analysis with LISREL
Introduction to measurement equivalence with CFA

4. T-test
Concept and applications. Applying t-test with SPSS

5. Analysis of Variance (ANOVA)
Concept and applications. Applying ANOVA with SPSS

6. Regression models
Mediated regression models with PROCESS
Moderated regression models with PROCESS
Moderated mediation models with PROCESS

5. Structural equation models (SEM)
Models with observed variables. Models with latent variables.
Estimation of the structural models through LISREL (analysis of models with observed and latent variables)

WORKLOAD

ACTIVITY	Hours	% To be attended
Theory classes	40,00	100
Development of group work	22,00	0
Development of individual work	20,00	0
Preparation of evaluation activities	12,00	0
Resolution of online questionnaires	6,00	0
TOTAL	**100,00**	

TEACHING METHODOLOGY

The following teaching techniques will be used:

- Oral presentations by the instructor.
- Oral presentations by the students.
- Individual and group guided exercises.
- Reading, analysis and discussion of published research articles.

. Individual and group tutorships.

EVALUATION

Students will be evaluated in a 0 to 10 scale, considering the following complementary approaches:

1. Individual final assignment: work in which student will have to apply the knowledge and skills acquired during the course. It will represent 60% of the final qualification.

2. Portfolio: activities and exercises (oral presentations, solved exercises, critical analysis of published articles, individual and / or group tasks) carried out by the student during the course. It will represent 40% of the final qualification.

Considering the nature and purpose of the course, competences cannot be assessed by means of an exam.

Additional considerations:

1. To pass the course, students should achieve a minimum of 50% in the individual final assignment.

2. If a student does not pass the individual final assignment in the first call, the score obtained in the Portfolio will be saved for the second call.

3. The copy or plagiarism of any task of the evaluation will suppose the impossibility to pass the course.

REFERENCES

Basic

- Hair, JF; Anderson, RE; Tatham, RL; Black, WC (2005). Multivariate data analysis Prentice All International.
- Tabachnick, B. G., and Fidell, L. S. (2007). Using Multivariate Statistics , 5th ed. Boston: Allyn and Bacon.
- Thompson, B (2004) Exploratory and Confirmatory Factor Analysis: Understanding Concepts and Applications. EdD APA
- Kline, R. B. (2004). Principles and Practice of Structural Equation Modeling (2nd Edition). New York: Guilford Publications
- Hayes, A. F. (2013). Introduction to Mediation, Moderation, and Conditional Process Analysis. A Regression-Based Approach. Guilford Press

- Evans, J. (2007). Your Psychological project. Sage.
- Navarro, D. J. & Foxcroft, D. R. (2019). Learning statistics with Jamovi: A tutorial for psychology students and other beginners. DOI: 10.24384/hgc3-7p15
- Thompson, B. (2004) Exploratory and Confirmatory Factor Analysis: Understanding Concepts and Applications. EdD APA.

Additional

- Berry, W. D. & Feldman, S. (1985). Multiple regression in practice. Newbury Park, CA: Sage.
- Cohen, J. & Cohen, P., West, S. G. & Aiken, L. S. (2003). Applied multiple regression/correlation analysis for the behavioral sciences, 3rd ed. Hillsdale, NJ: LEA.
- Kim, J. & Mueller, C. W. (1978). Factor analysis. Newbury Park, CA: Sage.
- Hayes, A. F. (2012). PROCESS: A versatile computational tool for observed variable mediation, moderation, and conditional process modeling [White paper]. Retrieved from http://www.afhayes.com/public/process2012.pdf