COURSE DATA

DATA SUBJECT

Code: 44844
Name: Research and multivariate analysis in WOP
Cycle: Master's Degree / Doctorate
ECTS Credits: 4
Academic year: 2025-26

STUDY (S)

Degree	Center	Acad. year	Period
2235 - Master's degree Erasmus Mundus on Work, Organizational and Personnel Psycho	Facultat de Psicologia i Logopèdia	1	First quarter
3152 - PhD in Human Resources Psychology	Escola de Doctorat		First quarter
3152 - PhD in Human Resources Psychology	Escola de Doctorat		First quarter

SUBJECT-MATTER

Degree	Subject-matter	Character
2235 - Master's degree Erasmus Mundus on Work, Organizational and Personnel Psycho	Methodology. Explanatory introduction	COMPULSORY
3152 - PhD in Human Resources Psychology		
3152 - PhD in Human Resources Psychology		

COORDINATION

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SUMMARY

The master's program includes training in methodology, whose goal is to provide a sound and scientific basis for the practitioner's activity in WOP-P. This is congruent with the Scientist-Practitioner model and an evidence-based approach.

The course, which takes place during the first semester of the academic year, focuses on all the steps that must be followed to carry out a WOP-P research, including multivariate statistical analysis.

In the introductory lessons, a special emphasis will be put on the need to take into consideration contextual and cultural issues when designing a WOP-P study, as well as measurement issues when cultural comparison is the focus. When focusing on the analysis, attention will be paid to how to test the role of

these contextual and cultural variables.

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.

COMPETENCES / LEARNING OUTCOMES

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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 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 presentar oralmente trabajos de integración 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 redactar trabajos de investigación en 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.

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.

DESCRIPTION OF CONTENTS

1. Foundations: The language of research. Philosophy of research. Formulating the research problem. Literature review. Ethics in research.

2. Choosing the sample: Size and representativeness. Cultural and contextual issues. External validity

3. Choosing and analysing the measurement instruments: Types of measures, reliability and construct validity, introduction to measurement equivalence

4. Research design. Types of designs and internal validity.

5. Analysis
5.1. Descriptive statistics. Data preparation, graphs and basic statistics.
5.2. Inferential statistics. The General linear model: Anova and Regression analysis (mediation, moderation and moderated mediation). Conclusion validity.

6. Concluding and discussing. Writing Up: Key elements, report sections and formatting.

WORKLOAD

PRESENCIAL ACTIVITIES

Activity	Hours
Theory	40,00
Total hours	**40,00**

NON PRESENCIAL ACTIVITIES

Activity	Hours
Attendance at other activities	0,00
Individual or group project	20,00
Independent study and work	10,00
Preparation of lessons	10,00
Preparation for assessment activities	10,00
Resolution of case studies	10,00
Total hours	**60,00**

TEACHING METHODOLOGY

The following teaching techniques will be used:

- Master classes.
- Oral presentations by students.
- Readings.
- Case studies.
- Guided individual and/or group exercises
- Individual and/or group tutorships

EVALUATION

Students will be evaluated on a scale of 0 to 10. The following sections are considered:

- Portfolio preparation, compiling the various results related to student activities during a specific course or training activity, as well as evidence of the skills developed. 20%
- Quality of student oral presentations. 10%
- Preparation of assignments for the integration of knowledge or for the analysis of a relevant topic. 30%
- Critical analysis of articles and other materials. 10%
- Critical analysis of case studies. 10%
- Solving specific exercises (e.g., statistical analysis). 20%

Additional considerations:
Cheating or plagiarism of any assessment assignment will result in the inability to pass the course.

REFERENCES

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- Evans, J. (2007). Your Psychological project. 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
- Hayes, A. F. (2022). Introduction to Mediation, Moderation, and Conditional Process Analysis. A Regression-Based Approach. 3rd Edition. Guilford Press.
- Kim, J. & Mueller, C. W. (1978). Factor analysis. Sage
- Lewis-Beck, M. S. (1980). Applied regression. Sage
- Lorenzo-Seva, U. & Ferrando, P.J. (2006) FACTOR: a computer program to fit the exploratory factor analysis model. Behavioral Research Methods, 38, 88-91
- Navarro, D. J. & Foxcroft, D. R. (2019). Learning statistics with Jamovi: A tutorial for psychology students and other beginners.
- Pedhazur EJ, Pedhazur, L. (1991). Measurement, design and analysis: an integrated approach. LEA. Hillsdale. New Jersey.
- Tabachnick, B. G., and Fidell, L. S. (2007). Using Multivariate Statistics, 5th ed. Allyn and Bacon.