



UNIVERSITÀ DEGLI STUDI DI PALERMO

DEPARTMENT	Scienze Psicologiche, Pedagogiche, dell'Esercizio Fisico e della Formazione		
ACADEMIC YEAR	2024/2025		
MASTER'S DEGREE (MSC)	SOCIAL, WORK AND ORGANISATIONAL PSYCHOLOGY		
INTEGRATED COURSE	SOCIAL RESEARCH THEORY AND TECHNIQUES - INTEGRATED COURSE		
CODE	23262		
MODULES	Yes		
NUMBER OF MODULES	2		
SCIENTIFIC SECTOR(S)	SECS-S/05, M-PSI/05		
HEAD PROFESSOR(S)	PARROCO ANNA MARIA	Professore Ordinario	Univ. di PALERMO
OTHER PROFESSOR(S)	PARROCO ANNA MARIA	Professore Ordinario	Univ. di PALERMO
	MIRISOLA ALBERTO	Professore Associato	Univ. di PALERMO
CREDITS	12		
PROPAEDEUTICAL SUBJECTS			
MUTUALIZATION			
YEAR	1		
TERM (SEMESTER)	1° semester		
ATTENDANCE	Not mandatory		
EVALUATION	Out of 30		
TEACHER OFFICE HOURS	<p>MIRISOLA ALBERTO Wednesday 09:30 13:00 Previa prenotazione, il ricevimento si terrà presso la piattaforma Teams al seguente link: https://teams.microsoft.com/j/team/19%3ab17211e45c0f47009be8bed1c20cc0ce%40thread.tacv2/conversations?groupId=4c0b60a9-b7be-41f9-94d6-d9d0e75c92c7&tenantId=bf17c3fc-3ccd-4f1e-8546-88fa851b</p> <p>PARROCO ANNA MARIA Tuesday 09:00 12:30 Il ricevimento si svolge in presenza presso lo studio 610, al 6 piano dell'ed.15 oppure a distanza su piattaforma TEAMS. Dopo essersi prenotati, si prega di inviare una mail all'indirizzo annamaria.parroco@unipa.it specificando la modalità prescelta e per concordare un appuntamento orario.</p>		

DOCENTE: Prof.ssa ANNA MARIA PARROCO

PREREQUISITES	Basic notions of mathematics. To have a basic knowledge of statistics and research methodology
LEARNING OUTCOMES	<p>Knowledge and understanding Students have to know and understand psychosocial research models, data organization strategies, and data analysis methods for hypothesis testing.</p> <p>Applying knowledge and understanding Students have to correctly identify the appropriate methodology and analysis strategy for testing hypotheses, according to the nature of the hypothesis and the type of data collected, and analyze it in R.</p> <p>Making judgements Students have to demonstrate autonomy in decision making concerning the formulation of the hypotheses, the planning and the analysis of the collected data</p> <p>Communication skills Students have to synthesize, connect and communicate the main contents of the course program using an appropriate psychological and methodological lexicon</p> <p>Learning skills Students have to be able to learn how to make the correct decisions to resolve a new research problem not addressed during the course</p>
ASSESSMENT METHODS	<p>The assessment method consists of both theoretical questions relating to the entire program and a practical part of data analysis using R software. The final test aims to assess whether the student possesses methodology knowledge; he/she has acquired interpretative competence and independent judgment; he/she is capable of setting up the best research design to test a research hypothesis; he/she is able to calculate the necessary sample size, as well as perform and correctly interpret a data analysis using R.</p> <p>The sufficiency threshold will be reached when the student shows:</p> <ul style="list-style-type: none">- to have preliminary knowledge- to understand the logic of scientific research and to have satisfactory application skills to conduct simple data collection and data analysis- to correctly interpret the information collected and analyzed. <p>Below this threshold, the exam will be insufficient. However, the more student will be able to independently find connections between the course topics with an in-depth knowledge of the discipline, the more the evaluation will be positive.</p> <p>During the week of suspension of didactic activity, a mid-course test is administered to students who freely decide to participate. It is a multiple-choice test that includes theoretical questions and the resolution of exercises. It refers to topics imparted up to that time of the course.</p> <p>The allotted time is 30 minutes. Only right answers are scored, no penalty is given to missing or incorrect answers. To get the minimum evaluation and pass the mid-term test, the candidate must be able to correctly complete at least 60% of the questions proposed. The evaluation of the test is expressed out of thirty. The student who passes the mid-course test will be able to take the final exam on the contents of the program that are not part of the first test, as long as this takes place within the first useful exam session (the one immediately following the end of the course).</p> <p>The final evaluation is calculated as the weighted average of the marks obtained in the written / practical tests and in the oral one (with weights given by: midterm test 30%, oral test 70%).</p> <p>Compensatory tools and dispensatory measures will be guaranteed by the Disability and Neurodiversity Center - University of Palermo (Ce.N.Dis.) to students with disabilities and neurodiversity, based on specific needs and in implementation of current legislation</p>
TEACHING METHODS	Lectures, practices, and laboratory activities

**MODULE
PSYCHOSOCIAL RESEARCH METHODOLOGY**

Prof. ALBERTO MIRISOLA

SUGGESTED BIBLIOGRAPHY

- Navarro, D. (2015). Learning statistics with r: A tutorial for psychology students and other beginners: version 0.6. Adelaide, Australia: University of Adelaide (scaricabile gratuitamente qui [you can download it for free from this link]: <https://learningstatisticswithr.com/>)
- materiale integrativo scaricabile dal portale e-learning (you can download additional bibliography to learn from the e-learning portal)

AMBIT	50471-Psicologia sociale e del lavoro
INDIVIDUAL STUDY (Hrs)	110
COURSE ACTIVITY (Hrs)	40

EDUCATIONAL OBJECTIVES OF THE MODULE

Develop knowledge and understanding of the logic of scientific research, as well as improve application skills to conduct simple surveys and research designs, analyze data and correctly interpret results to make correct decisions and allow the transmission of acquired knowledge.

SYLLABUS

Hrs	Frontal teaching
6	Research Designs and the central limit theorem
2	basic math elements
3	Measurement and Scaling
3	alpha, beta, type I and type II errors, effect size and power
3	Correlation
5	Regression models
3	comparison of two independent samples

Hrs	Practice
3	Measurement and Scaling
3	alpha, beta, type I and type II errors, effect size and power: il caso dei disegni di ricerca
3	Correlation
3	Regression Models
3	comparison of two independent samples

**MODULE
DATA ANALYSIS WORKSHOP**

Prof.ssa ANNA MARIA PARROCO

SUGGESTED BIBLIOGRAPHY

Navarro, D. (2015) Learning Statistics with R: A tutorial for psychology students and other beginners (ver. 0.6). A free copy of the book can be downloaded at the following link: <https://learningstatisticswithr.com/>

in alternativa:

Weinberg S.L., Harel D., Abramowitz S., (2020) Statistics Using R, Cambridge University Press, ISBN: 9781108719148

Altri materiali saranno distribuiti durante il corso. (Other references, papers, and case studies will be provided during the course)

AMBIT	20969-Attività formative affini o integrative
INDIVIDUAL STUDY (Hrs)	110
COURSE ACTIVITY (Hrs)	40

EDUCATIONAL OBJECTIVES OF THE MODULE

The course aims to strengthen the ability of students in understanding and critically elaborating texts which will include the use of statistical techniques for analyzing mass behaviours and attitudes. Case-studies, from the psychological field, will be used in order to explain the close connection among the researcher's questions, the choice of one among many research designs and statistical tools. Applications will be encouraged through the RStudio and R softwares.

SYLLABUS

Hrs	Frontal teaching
2	Basic notions of mathematics.
2	Stevens measurement levels. Review of descriptive statistics: univariate analysis
2	Review of inferential statistics: estimating parameters, testing hypotheses
3	Probability and statistical inference. Theoretical continuous distributions: Normal distribution, Student's t distribution, Chi-square distribution, Fisher Snedecor's distribution. Sampling distributions: expected value (EV), standard error. Point estimates, confidence intervals
3	Hypotheses testing: alpha, beta, effect size e test power
2	Hypotheses testing: about two population means (matched-pairs data, independent samples, equal or unequal population variances)

Hrs	Workshops
4	Importing dataset, inputting data; Basic R functions
4	Univariate descriptive statistics using R: mean, median, quantiles, mode; standard deviation, variance, coefficient of variation, Gini's heterogeneity index
3	From data matrices to frequency distributions using R: cumulative and noncumulative frequency distributions (discrete values and classes, counts, relative frequencies, percentages). Graphs using R: bar plot, pie chart, histogram, vertical lines plot, stair step plot, ogive. The shape of a distribution: rightskewed, left-skewed, bell-shaped; boxplot.
4	Probability and statistical inference. Laboratory using R
3	Hypotheses testing: about a population mean, about a population proportion (large samples)
6	Hypotheses testing: about two population means (matched-pairs data, independent samples, equal or unequal population variances)
2	Interpreting the software output.