

Faculty of Nursing

SUBJECT TEACHING GUIDE

G369 - Biostatistics

Degree in Nursing First Degree in Nursing

Academic year 2023-2024

1. IDENTIFYING DATA									
Degree	Degree in Nursing First Degree in Nursing				Type and Year	Core. Year 1 Core. Year 1			
Faculty	Faculty of Nursing								
Discipline	Subject Area: Statistics Module: Common Basic Trainin	g							
Course unit title and code	G369 - Biostatistics								
Number of ECTS credits allocated	6	Term Se		Semeste	Semester based (1)				
Web									
Language of instruction	Spanish	English Friendly	Yes	Mode of o	delivery	Face-to-face			

Department	DPTO. ENFERMERIA	
Name of lecturer	MIGUEL SANTIBAÑEZ MARGÜELLO	
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3.1 LEARNING OUTCOMES

- To identify health problems in a community by using statistical inference

- To interpretate the different possible factors that influence on the health of individuals and / or groups, by using statistical analysis approaches

- To understand descriptive statistics as a tool to identify health related problems, when data related to population studies are used

- To use statistical software as a tool in health related nursing care



4. OBJECTIVES

Being able to perform and interpret properly an analysis of data related to the care and health related problems

Being able to calculate the relationship between variables concerning health, and interpreting it properly

Interpretate and perform simple clinical & epidemiological studies

To known the basic concepts of epidemiology

6. COURSE ORGANIZATION				
CONTENTS				
1	PART I. BASICS ON EPIDEMIOLOGY AND STATISTICS. UD1. General principles of research. UD2. Definition of variables and analysis strategy. UD3. Measures of frequency, association and impact in epidemiology. Types of epidemiological studies. PA 1. Reading a scientific paper. PA 2. Interpretation of the Odds Ratio (independent dichotomous variable). PA 3. Interpretation of an Odds Ratio (ordinal independent variable).			
2	PART II AND III. DESCRIPTIVE AND INFERENTIAL STATISTICS. UD4. Introduction to Inferential Statistics. Inference on measures of association. UD5. Description of quantitative variables. UD6. Difference between standard error and standard deviation. Concept of statistical significance and confidence interval. PA 4. Inference on parameters (one population). PL 5. Descriptive statistics. PA 6. Difference between statistically significant and clinically relevant. Meta-analysis. PL 7. Inference on parameters (two populations). Comparison of means			
3	 PART IV . REPRODUCIBILITY , RELIABILITY , PRECISION AND VALIDITY, AND CAUSAL INFERENCE. UD7. Critical interpretation of diagnostic tests and screening. UD8. Validity of epidemiological studies. Bias. The randomized controlled trial. Causality Criteria. UD9. Reliability and Validity applied to Questionnaires. PL 8. Correct interpretation of association measures in epidemiology. Confounding (I). PL 9. Correct interpretation of association measures in epidemiology. Confounding (II). PL 10. Stratified analysis and logistic regression. PL 11. Practical exercises (review). 			



7. ASSESSMENT METHODS AND CRITERIA								
Description	Туре	Final Eval.	Reassessn	%				
Knodledge Examination	Written exam	Yes	Yes	60,00				
Team (group work) and/or individual work	Others	No	No	15,00				
Activities of classroom (practical hours)	Others	No	No	25,00				
TOTAL				100,00				
Observations								
Grade 'not presented': when a student has not carried out evaluation activities whose weight exceeds 50% of the subject's grade, it will appear in his/her record as not presented. When the student has taken tests that represent the referred 50% or more, the corresponding grade will appear in the transcript of grades.								

The evaluation may be conducted remotely if the health and academic authorities advise it.

Observations for part-time students

Part-time students will be given the choice to participate in the following assessment system:

- Carry out a unique examination, this is, the 'Knowledge Examination' with will denote the 100% of the final mark.

To choose this modality, the student will inform to the teacher responsible for the subject at the beginning of the academic year

8. BIBLIOGRAPHY AND TEACHING MATERIALS

BASIC

Argimón Pallàs, JM. Jiménez Villa, J. Métodos de investigación clínica y epidemiológica. 3ª ed. Madrid, Elsevier; 2006.

Martínez, M.A.; Faulín, F.J. y Sánchez, A. Bioestadística Amigable, 2ª Ed. Madrid: Díaz de Santos; 2006. (Primera reimpresión revisada, 2009)

Fisterra.com. Atención Primaria en la red. Metodología de la Investigación. Disponible en: http://www.fisterra.com/mbe/investiga/index.asp.