

SUBJECT TEACHING GUIDE

G369 - Biostatistics

First Degree in Nursing

Academic year 2024-2025

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

Department	DPTO. ENFERMERIA				
Name of lecturer	MIGUEL SANTIBAÑEZ MARGÜELLO				
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Other lecturers	JOSE MARIA CASTILLO OTI				

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

7. ASSESSMENT METHODS AND CRITERIA				
Description	Type	Final Eval.	Reassessn	%
Knowledge 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				
<p>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.</p> <p>The evaluation may be conducted remotely if the health and academic authorities advise it.</p>				
Observations for part-time students				
<p>Part-time students will be given the choice to participate in the following assesment system:</p> <ul style="list-style-type: none"> - Carry out a unique examination, this is, the 'Knowledge Examination' with will denote the 100% of the final mark. <p>To choose this modality, the student will inform to the teacher responsible for the subject at the beginning of the academic year</p>				

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>.