



1. General information

Course: RESEARCH AND ADVANCED STATISTICAL ANALYSIS**Code:** 310972**Type:** CORE COURSE**ECTS credits:** 6**Degree:** 2353 - MASTER DEGREE PROGRAMME IN LONG TERM NURSING CARE**Academic year:** 2022-23**Center:** 302 - FACULTY OF NURSING OF CUENCA**Group(s):** 30**Year:** 1**Duration:** First semester**Main language:** Spanish**Second language:****Use of additional languages:****English Friendly:** Y**Web site:****Bilingual:** N**Lecturer:** BEATRIZ RODRIGUEZ MARTIN - Group(s): 30

Building/Office	Department	Phone number	Email	Office hours
1.6	ENFERMERÍA, FISIOTERAPIA Y TERAPIA OCUP.	+34926051418	beatriz.rmartin@uclm.es	

Lecturer: MONSERRAT SOLERA MARTINEZ - Group(s): 30

Building/Office	Department	Phone number	Email	Office hours
Edificio Melchor Cano/3.11	ENFERMERÍA, FISIOTERAPIA Y TERAPIA OCUP.	4682	monserrat.solera@uclm.es	

2. Pre-Requisites

Any prerequisites are established. Documentation and bibliography in English could be facilitated.

3. Justification in the curriculum, relation to other subjects and to the profession

At the master's level and in the field of health sciences, it is necessary to consolidate the scientific method. Thus, it is necessary to manage the two main methodological approaches to answer research questions in the field of health: the qualitative methodology and the quantitative methodology. Finally, the student must be able to effectively handle the tools of the statistical methodology, and apply them to the computer processing of data in the health sciences.

4. Degree competences achieved in this course

Course competences

Code	Description
CB06	Possess and understand knowledge that provides a basis or opportunity to be original in the development and / or application of ideas, often in a research context.
CB07	Apply the achieved knowledge and ability to solve problems in new or unfamiliar environments within broader (or multidisciplinary) contexts related to the area of study
CB08	Be able to integrate knowledge and face the complexity of making judgments based on information that, being incomplete or limited, includes reflections on social and ethical responsibilities linked to the application of knowledge and judgments
CB09	Know how to communicate the conclusions and their supported knowledge and ultimate reasons to specialized and non-specialized audiences in a clear and unambiguous way
CB10	Have the learning skills which allow to continue studying in a self-directed or autonomous way
CE10	To know how to apply the most appropriate multivariate statistical procedure to complex data in the health and social care field.
CE11	To know how to prepare a pertinent, rigorous and feasible research proposal that responds to a priority research problem in the health and social care field.

5. Objectives or Learning Outcomes

Course learning outcomes

Description

The student will be able to select the appropriate statistical techniques for the exploratory, descriptive, multivariate and inferential analysis of complex data.

The student will be able to interpret and obtain practical conclusions from the analysis of the data.

The student will be able to know the appropriate techniques to summarize and graphically represent the data of a study.

The student will be able to analyze complex data with the IBM SPSS and EPIDAT statistical packages.

The student will be able to select, based on the research question, if the most appropriate approach is the qualitative or quantitative one.

6. Units / Contents

Unit 1: Health research designs (quantitative, qualitative and mixed designs).

Unit 1.1 Coding and data analysis.**Unit 1.2** Statistical inference: confidence intervals and hypothesis contrast.

Unit 1.3 Regression and simple and multiple correlation.

Unit 1.4 Logistic regression.

Unit 1.5 Survival analysis.

Unit 1.6 Results presentation.

7. Activities, Units/Modules and Methodology							
Training Activity	Methodology	Related Competences (only degrees before RD 822/2021)	ECTS	Hours	As	Com	Description
Class Attendance (theory) [ON-SITE]	Lectures	CB06 CB07 CB08 CE10 CE11	0.8	20	Y	Y	Presentation of the fundamental contents of the subject. It is also intended to lead students to reflect by themselves.
Workshops or seminars [ON-SITE]	Workshops and Seminars	CB06 CB07 CB08 CB09 CE10 CE11	0.8	20	Y	Y	Realization of activities that connect the theoretical contents with the practical contents. Lectures, practical workshops, problem solving and clinical cases. It is also intended to lead students to reflect by themselves.
Group tutoring sessions [ON-SITE]	Group tutoring sessions	CB07 CB08 CB09 CE11	0.4	10	Y	Y	Autonomous work and problem solving. Creativity and relationship with the group. Contributions to group work and assessment of interventions.
Final test [ON-SITE]	Assessment tests	CB06 CB07 CB08 CE10 CE11	0.1	2.5	Y	Y	Mastery of the basic concepts of the subject. Demonstration of knowledge through a multiple-choice test.
Study and Exam Preparation [OFF-SITE]	Self-study	CB10	2	50	N	-	Study of the contents of the subject and preparation of evaluation tests.
Analysis of articles and reviews [OFF-SITE]	Reading and Analysis of Reviews and Articles	CB08 CB10 CE11	1	25	Y	Y	Critical reading of bibliography and reflection, deduction and synthesis tasks.
On-line debates and forums [OFF-SITE]	Debates	CB09	0.9	22.5	N	-	Participation in forums and debates through virtual campus.
Total:			6	150			
Total credits of in-class work: 2.1			Total class time hours: 52.5				
Total credits of out of class work: 3.9			Total hours of out of class work: 97.5				

As: Assessable training activity

Com: Training activity of compulsory overcoming (It will be essential to overcome both continuous and non-continuous assessment).

8. Evaluation criteria and Grading System			
Evaluation System	Continuous assessment	Non-continuous evaluation*	Description
Self Evaluation and Co-evaluation	15.00%	0.00%	Active participation in online forums and debates will be assessed.
Final test	80.00%	0.00%	Multiple-choice test test with 4 answer options of about 30 questions, with a duration of about 40 minutes.
Assessment of problem solving and/or case studies	5.00%	0.00%	Active participation in the problems and clinical cases raised during the course will be assessed.
Total:	100.00%	0.00%	

According to art. 4 of the UCLM Student Evaluation Regulations, it must be provided to students who cannot regularly attend face-to-face training activities the passing of the subject, having the right (art. 12.2) to be globally graded, in 2 annual calls per subject, an ordinary and an extraordinary one (evaluating 100% of the competences).

Evaluation criteria for the final exam:

Continuous assessment:

The ordinary evaluation will have a final numerical mark between 0 and 10 according to the current Spanish legislation in force. It is necessary the participation of the student in at least 80% of the sessions to pass the subject. The evaluation of on-line activities and the resolution of problems and / or cases will suppose a 20% of the qualification, and 80% the score obtained in a final test with multiple-choice test.

Non-continuous evaluation:

Evaluation criteria not defined

Specifications for the resit/retake exam:

In this call the student must examine the contents of the subject not approved in the ordinary call.

Specifications for the second resit / retake exam:

In this call the student must examine all the contents of the program, regardless of whether they have passed or not before.

9. Assignments, course calendar and important dates	
Not related to the syllabus/contents	
Hours	hours
Unit 1 (de 1): Health research designs (quantitative, qualitative and mixed designs).	

Activities	Hours
Class Attendance (theory) [PRESENCIAL][Lectures]	20
Workshops or seminars [PRESENCIAL][Workshops and Seminars]	20
Group tutoring sessions [PRESENCIAL][Group tutoring sessions]	10
Final test [PRESENCIAL][Assessment tests]	2.5
Study and Exam Preparation [AUTÓNOMA][Self-study]	50
Analysis of articles and reviews [AUTÓNOMA][Reading and Analysis of Reviews and Articles]	25
On-line debates and forums [AUTÓNOMA][Debates]	22.5
Group 30:	
Initial date: 07-11-2022	End date: 17-11-2022
Global activity	
Activities	hours
Final test [PRESENCIAL][Assessment tests]	2.5
Workshops or seminars [PRESENCIAL][Workshops and Seminars]	20
Group tutoring sessions [PRESENCIAL][Group tutoring sessions]	10
Study and Exam Preparation [AUTÓNOMA][Self-study]	50
Analysis of articles and reviews [AUTÓNOMA][Reading and Analysis of Reviews and Articles]	25
On-line debates and forums [AUTÓNOMA][Debates]	22.5
Class Attendance (theory) [PRESENCIAL][Lectures]	20
Total horas: 150	

10. Bibliography and Sources						
Author(s)	Title/Link	Publishing house	Citv	ISBN	Year	Description
	BIOESTADISTICA	ediciones científicas y técnicasMassonSalvat		84-458-0020-5	19	
Villa Rodríguez, Joel A.	IBM SPSS : analisis estadístico /	El Autor,			2014	
Ximenez, M. Carmen	Cuaderno de practicas de analisis de datos con SPSS	Universidad Autónoma de Madrid		978-84-8344-205-0	2011	
Ferrán Aranaz, Magdalena	Curso de SPSS para Windows	McGraw-Hill/Interamericana de España		84-481-3279-3	2002	