



Teaching Guide

Identifying Data					2017/18
Subject (*)	Research Methodology	Code	651516001		
Study programme	Mestrado Universitario en Discapacidade e Dependencia (plan 2015)				
Descriptors					
Cycle	Period	Year	Type	Credits	
Official Master's Degree	Yearly	First	Obligatoria	9	
Language	Spanish				
Teaching method	Face-to-face				
Prerequisites					
Department	Ciencias Biomédicas, Medicina e Fisioterapia Didácticas Específicas e Métodos de Investigación e Diagnóstico en Educación Socioloxía e Ciencias da Comunicación				
Coordinador	Bello Rodriguez, Olalla	E-mail	olalla.bello@udc.es		
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Web					
General description	The course on "Research Methods" has a transversal orientation. Therefore, it must provide students the knowledge and skills that help them to understand and develop research, both in relation to the work of the final project of the master and, if appropriate, for the development of their doctoral dissertations. Therefore, the knowledge acquired constitute support for the realization of the final work of the project with adequate scientific methodology, making it the translation of empirical knowledge and skills acquired. While the final project of the master entirely designs and executes a research project, in this course we will only conduct the methodological design of the research project.				

Study programme competences / results

Code	Study programme competences / results
A2	CE2. Ser capaz de deseñar proxectos de investigación no ámbito da discapacidade e dependencia
A5	CE5. Ser capaz de utilizar eficientemente os recursos tecnolóxicos na comprensión e investigación da discapacidade e a dependencia?
B1	CB6. Posuír e comprender coñecementos que acheguen unha base ou oportunidade de ser orixinais no desenvolvemento e/ou aplicación de ideas, a miúdo nun contexto de investigación
B2	CB7. Que os estudantes saiban aplicar os coñecementos adquiridos e a súa capacidade de resolución de problemas en ámbitos novos ou pouco coñecidos dentro de contextos máis amplos (ou multidisciplinares) relacionados coa súa área de estudo
B4	CB9. Que os estudantes saiban comunicar as súas conclusións e os coñecementos e razóns últimas que as sustentan a públicos especializados e non especializados dun modo claro e sen ambigüidades
B5	CB10. Que os estudantes posúan as habilidades de aprendizaxe que lles permitan continuar estudando dun modo que haberá de ser en boa medida autodirixido ou autónomo.
B6	CG1 Ser capaz de seleccionar e desenvolver as estratexias investigadoras para estudar a problemática relacionada coa discapacidade e a dependencia
B10	CG5 Capacidade para integrar coñecementos científicos de carácter avanzado ligados ao ámbito da discapacidade e a dependencia
B11	CG6 Ser capaz de acceder á información relacionada coa discapacidade e a dependencia
C3	CT3. Utilizar as ferramentas tecnolóxicas básicas necesarias para o exercicio da súa profesión e para a aprendizaxe ao longo da súa vida
C6	CT6. Valorar críticamente o coñecemento, a tecnoloxía e a información dispoñible para resolver os problemas aos que deben afrontarse

Learning outcomes

Learning outcomes	Study programme competences / results		
Upon successful completion of the course, students will be able to recognize the structure of different research projects.	AR2	BR11	
Upon successful completion of the course, students will be able to identify the different phases and tasks that are required in research activity.	AR2		



Upon successful completion of the course, students will be able to program different methodological designs.	AR2	BR1 BR2 BR5 BR6	
Upon successful completion of the course, students will be able to identify the advantages and disadvantages of different methodological designs.		BR6	
Upon successful completion of the course, students will be able to calculate the more usual epidemiological indicators, the sample size and the main descriptive statistics.	AR5	BR10	CR3
Upon successful completion of the course, students will be able to choose the more appropriate statistical tests in each case.		BR6	CR3
Upon successful completion of the course, students will be able to interpret the most usual epidemiological indicators, the descriptive statistics and the outcomes of the main statistical tests.	AR5	BR4 BR10	CR3 CR6

Contents	
Topic	Sub-topic
LESSON 1. RESEARCH PLAN	Structure of a research. Activities in a research: measurement, comparison and interpretation.
LESSON 2. TIPOS OF EPIDEMIOLOGICAL STUDIES.	Descriptive studies vs. analytical studies. Cross-sectional studies vs. longitudinal studies. Experimental studies vs. observational studies. Prospective studies vs. retrospective studies. Questions of validity, accuracy and reliability in epidemiological studies.
LESSON 5. FUNDAMENTALS ON STATISTICS.	The concept of Statistics. Variables. Tabulation and graphical representation of variables.

Planning				
Methodologies / tests	Competencies / Results	Teaching hours (in-person & virtual)	Student?s personal work hours	Total hours
ICT practicals	A5 B4 B6 B10 B11 C3	45	45	90
Supervised projects	A2 A5 B1 B2 B4 B5 B6 B10 B11 C3 C6	25	40	65
Mixed objective/subjective test	B1 B5 B6 B10 C6	2	10	12
Practical test:	A5 B1 B2 B4 B6 B10 B11 C6 C3	2	11	13
Guest lecture / keynote speech	A2 B1 B5 B6 B10 B11 C6	20	20	40
Personalized attention		5	0	5

(*)The information in the planning table is for guidance only and does not take into account the heterogeneity of the students.

Methodologies	
Methodologies	Description
ICT practicals	Throughout the course, students should develop tutored classroom practices, many of which involve the use of ICT, in particular the handling of SPSS.
Supervised projects	In the first half of the course, students will develop a research project in all its phases and which takes as its subject's own final project.
Mixed objective/subjective test	Proba escrita utilizada para a avaliación da aprendizaxe que pode conter distintos tipos de preguntas: preguntas test e/ou de resposta breve e/ou de desenvolvemento.
Practical test:	Proba na que se valorará fundamentalmente o manexo das técnicas estatísticas máis adecuadas en cada caso, fundamentalmente a través do emprego do programa SPSS. Esta proba poderá ser realizada de forma conxunta coa proba teórica para poder avaliar conxuntamente a realización de varias fases do proceso de investigación.



Guest lecture / keynote speech	Students, with the help of the teacher, will expose in the classroom the content of the basic readings that the teacher will indicate at any time.
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Personalized attention

Methodologies	Description
Mixed objective/subjective test Practical test: Guest lecture / keynote speech ICT practicals Supervised projects	For the development of practices, students will have the personal attention of the teacher in the classroom. In addition, students must attend at least two tutorials throughout the development of their supervised project.

Assessment

Methodologies	Competencies / Results	Description	Qualification
Mixed objective/subjective test	B1 B5 B6 B10 C6	Exame de todos os contidos da materia, que inclúe os tratados nas sesións maxistras, prácticas e traballos. O tipo de exame será de exposición escrita podendo incluír preguntas tipo test e/ou preguntas de resposta breve e/ou para desenvolver. Superar esta proba será requisito indispensable para aprobar a materia. Se o profesor e a maioría simple do alumnado así o acorda, poderá facerse un ou varias probas teóricas da materia durante o curso, de forma que en caso de superalas, o alumnado poida liberar parte ou toda a materia da proba mixta nas convocatorias oficiais.	40
Practical test:	A5 B1 B2 B4 B6 B10 B11 C6 C3	Exame práctico mediante o uso de recursos informáticos de todos os contidos da materia. Superar esta proba será requisito indispensable para aprobar a materia. Se o profesor e a maioría simple do alumnado así o acorda, poderán realizarse unha ou varias probas prácticas da materia durante o curso, de forma que en caso de superalas, o alumnado poida liberar parte ou toda a materia da proba práctica nas convocatorias oficiais.	20
Supervised projects	A2 A5 B1 B2 B4 B5 B6 B10 B11 C3 C6	It will consist in developing a research project at all its stages and taking as its subject their final project.	40

Assessment comments



At the beginning of the course students must choose one of two ways: either continuous assessment or assessment by examination on the official date. Those opting for the latter route will only have to present a theoretical and practical examination on the official date. Students who choose the path of continuous evaluation may not be presented for consideration by the official date in June. It is understood that those not continuous assessment those students who did not communicate to the teacher by e-mail their choice by continuous assessment before October 15, 2016. The evaluation of the efforts of students who have opted for continuous assessment will be based on a system of points that have to be accumulated throughout the course. The maximum number of points that students can get will be 100 on continuous assessment and 80 in non-continuous assessment. Their final score will depend directly on the number of points they accumulate.

In some classes the teacher will pass a signature sheet to monitor student attendance.

Students in the continuous evaluation, will approve the subject if they meet each and every one of the following three conditions: (1) to attend at least 75% of classes in which attendance was monitored; (2) to accumulate 50 or more points and (3) to obtain in each of the tests, at least a third of the points in game (10 on the ICT practicals and workbook, and 7 in the supervised project and the objective tests).

Students in non-continuous evaluation must obtain at least 50 points to pass, since the theoretical part will involve a maximum 50 points and the practical part will involve a maximum of 30 points. The latter will also be applied to all the students in the official opportunity of July.

The teacher reserves the right to make changes along the course, provided they are not in contradiction with any of the information contained herein.

Sources of information

Basic	<ul style="list-style-type: none"> - Hulley, S.B., Cummings, S.R., Browner, W.S., Grady, D.G. & (2014). Diseño de investigaciones clínicas. Buenos Aires: Wolters Kluwer Health - Ruiz Morales, A. & Morillo Zárate, L.E. (2004). Epidemiología clínica. Investigación clínica aplicada. Bogota: Editorial Médica Panamericana - Irala-Eatézvez, J. de, Martínez-González, M.A. & Seguí-Gómez, M. (2004). Epidemiología aplicada. Barcelona: Ariel - Cubo Delgado, S., Martín Marín, B. & Ramos Sánchez, J.L. (Coords.) (2011). Métodos de investigación y análisis de datos en ciencias sociales y de la salud. Madrid: Ediciones Pirámide - Hair, J.F., Anderson, R.E., Tathan, R.L. & Black, W.C. (1995). Análisis multivariante. Madrid: Prentice-Hall - Rothman, K.J. (1987). Epidemiología moderna. Madrid: Ediciones Díaz de Santos - Norell, S. (1994). Diseño de estudios epidemiológicos. Madrid: Siglo XXI - Moreno Altamirano, L., Cano Valle, F. & García Romero, H. (1994). Epidemiología clínica. México: Interamericana-McGraw-Hill - Sentís, J., Pardell, H., Cobo, E. & Canela, J. (2001). Bioestadística. Barcelona: Masson - León, O.G. & Montero, I. (2000). Métodos de investigación en Psicología y Educación. Madrid: McGraw-Hill - Pardo Merino, A. & Ruiz Díaz, M.A. (2002). SPSS 11. Guía para el análisis de datos. Madrid: McGraw-Hill - León, O.G. & Montero, I. (2003). Métodos de investigación en psicología y educación. Madrid: McGraw-Hill - Coolican, H. (2005). Métodos de investigación y estadística en psicología. México: Manual Moderno - Silva, L.C. (2004). Regresión logística. Madrid: La Muralla - Martínez-González M.A. et al. (2014). Bioestadística amigable. Barcelona: Elsevier - Argimón Pallás, J.M. (2013). Métodos de investigación clínica y epidemiológica. Barcelona: Elsevier
Complementary	

Recommendations

Subjects that it is recommended to have taken before

Subjects that are recommended to be taken simultaneously



Subjects that continue the syllabus
Other comments

(*)The teaching guide is the document in which the URV publishes the information about all its courses. It is a public document and cannot be modified. Only in exceptional cases can it be revised by the competent agent or duly revised so that it is in line with current legislation.