

Información del Plan Docente

Academic Year	2017/18
Faculty / School	104 - Facultad de Medicina
Degree	353 - Master's in Introduction to Medical Research 530 - Master's in Introduction to Medical Research
ECTS	6.0
Year	---
Semester	Indeterminate
Subject Type	Compulsory
Module	---

1.General information**1.1.Introduction****1.2.Recommendations to take this course****1.3.Context and importance of this course in the degree****1.4.Activities and key dates****2.Learning goals****2.1.Learning goals****2.2.Importance of learning goals****3.Aims of the course and competences****3.1.Aims of the course****3.2.Competences****4.Assessment (1st and 2nd call)****4.1.Assessment tasks (description of tasks, marking system and assessment criteria)****5.Methodology, learning tasks, syllabus and resources****5.1.Methodological overview**

The methodology followed in this course is oriented towards achievement of the learning objectives. A wide range of teaching and learning tasks are implemented, such as:

- Lectures: The theoretical concepts are complemented with practical cases to comment and interpret the results obtained by means of statistical packages.

68402 - Biostatistics. Epidemiology

- The assimilation of these concepts is reinforced by means of the critical review of articles in which statistical and epidemiological techniques are developed.
- Tutorials can be individual or in small groups, depending on what students need, to solve doubts and unclear concepts of the course contents.
- Individual and group papers, submitted via email.
- Autonomous work and study.

Classroom materials will be available via Moodle. These include a repository of the lecture notes used in class, the course syllabus, as well as other course-specific learning materials.

5.2.Learning tasks

The course includes the following learning tasks:

- Lectures: explanation of theoretical and practical concepts.
- Critical review of scientific articles.
- Interpretation of outputs of statistical packages used in the Social Sciences.

5.3.Syllabus

The course will address the following topics:

Topic 1. Collecting information. Sampling. Surveys.

Topic 2. Hypothesis testing for two or more samples.

Topic 3. Multiple regression and correlation. Logistic regression.

Topic 4. Crosstabs. Correspondence analysis.

Topic 5. Survival analysis.

Topic 6. Epidemiological study design: epidemiological measurements.

Topic 7. Analytic Epidemiology: Experimental designs. Observational designs.

Topic 8. Study of cause-effect association: Causal models. Evidence-based medicine. Research protocol.

5.4.Course planning and calendar

Provisional course planning

Topics	Date	Time	Professor
Topic 1. Collecting information. Sampling. Surveys.	30-10-2017	16-20	E. Sánchez

68402 - Biostatistics. Epidemiology

Topic 2. Hypothesis testing for two or more samples	30-11-2017	16-20	T. Martínez
Topic 3. Multiple regression and correlation. Logistic regression.	6-11-2017	16-20	E. Rubio
Topic 4 Crosstabs. Correspondence analysis	7-11-2017	16-20	A. García
Topic 5. Survival analysis.	8-11-2017	16-20	J. Santabárbara
Topic 6. Epidemiological study design: epidemiological measurements.	9-11-2017	16-20	S. Malo
Topic 7. Analytic Epidemiology: Experimental designs. Observational designs. Presentation of activity of evaluation	13-11-2017	16-18 18-20	I. Aguilar
Topic 8 Analytic Epidemiology: Experimental designs. Observational designs. Group work time.	14-11-2017	16-18 18-20	E. Lobo
Exam and presentation of papers	15-11-2017	-	All professors

Further information concerning the timetable, classroom, assessment dates and other details regarding this course, will

be provided on the first day of class or please refer to the Faculty of Medicine <https://medicina.unizar.es/>.

5.5.Bibliography and recommended resources

- Álvarez Cáceres, R. Estadística aplicada a Ciencias de la Salud. Ed: Díaz Santos. Madrid. 2007
- Argimón Pallás JM, Jiménez Villa J. Métodos de investigación. Clínica y epidemiológica. 4ªed. Elsevier, 2013.
- Begg C, Cho M, Eastwood S, Horton R, Moher D, Olkin I, Pitkin R. Mejora de la calidad de los informes de los ensayos clínicos aleatorios controlados. Recomendaciones del grupo de trabajo CONSORT. Rev Esp Salud Pública 1998; 72: 5-11
- Berra S, Elorza Ricart JM, estrada MD, Sánchez E. Instrumento para la lectura crítica y la evaluación de estudios epidemiológicos transversales. Gac Sanit 2008;22(5): 492-7
- Hopewell S, Clarke M, Moher D, Wager E, Middleton P, et al. (2008) CONSORT for Reporting Randomized Controlled Trials in Journal and Conference Abstracts: Explanation and Elaboration. PloS Med 5(1): e20. doi:10.1371/journal.pmed.0050020 available in: http://medicine.plosjournals.org/archive/15491676/5/1/pdf/10.1371_journal.pmed.0050020-S.pdf
- Kleinbaum DG.; Kupper LL.; Nizan A. Rosenberg E. Applied regression analysis and other multivariable methods (3ª ed). Ed Nelson Education. California. 2013- Martín Andrés, A., Luna Del Castillo, JD: Bioestadística para las ciencias de la salud. 5ª ed. Madrid, Ed: Norma, 2004- Martínez González, MA.; Sánchez-Villegas, A; Faulín Fajardo, J. Bioestadística amigable (3ª ed). Ed: Díaz Santos. Madrid 2009- Milton JS. Estadística para Biología y Ciencias de la Salud. 3ª ed ampliada McGraw Hill 2007.- Pardo Merino A. y Ruiz Díaz M.A. Análisis de datos con SPSS13 base Ed. Mc Graw Hill. 2005.- Rothman KJ, Greenland S. Modern epidemiology.2nd ed. Philadelphia: Lippincott-Raven, 1998.- Santabarbara J, Rubio E, Ceja C, Martínez T. Manual de bioestadística aplicada con IBM SPSS. Ed: Andavira. Santiago de Compostela 2015.- Silva LC. Excursión a la regresión logística en Ciencias de la Salud. Ediciones Díaz de Santos SA. Madrid 1995.
- von Elm E, Altman DG, Egger M, Pocock SJ, Gotsche PC, Vandenbroucke JP, en nombre de la iniciativa STROBE. Declaración de la Iniciativa STROBE (Strengthening the Reporting of Observational studies in Epidemiology): directrices para la comunicación de estudios observacionales. Gac Sanit. 2008;22(2):144-50