

68707 - Advanced Epidemiology

Información del Plan Docente

Academic Year	2017/18
Faculty / School	104 - Facultad de Medicina
Degree	459 - Master's in Public Health
ECTS	2.0
Year	1
Semester	Second semester
Subject Type	Optional
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

Students should have passed the courses OB2 and OB3, and therefore have enough baggage to deal with more complex research problems. From there, the learning and achievement of learning goals should be the consequence of attending and participating in the sessions and the preparation of an individual assignment.

5.2.Learning tasks

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The course includes the following learning tasks:

- Lectures.
- Case studies and problem-solving activities.
- Individual assignment.

5.3.Syllabus

The course will address the following topics:

Topic 1. Study of the causal association.

- Causal models.
- Experimental designs.

Topic 2. Observational designs: cohort studies.

Topic 3. Observational designs: case-control studies.

- New paradigms in epidemiological research.
- Observational hybrid designs:
 - o Nested case-control studies
 - o Case cohort studies

5.4.Course planning and calendar

Provisional course planning (session calendar, assignment submission dates are available on Moodle)

COURSE. ADVANCED EPIDEMIOLOGY

Day	Time	Topic	Professors	Activity	Location	Materials	Participation
Mon	16:30-				Seminario de Medicina Preventiva y Salud Pública		
	18:30	Experimental designs	G. Marcos	Lecture		Moodle	Articles evaluation
	19:00-20:30						
Tue	16:30-				Seminario de Medicina Preventiva y Salud Pública		
	18:30	Cohort Studies	M. Laclaustra	Lecture		Moodle	Articles evaluation
	19:00-20:30						
Wed	16:30-	Case	G.	Lecture	Seminario	Moodle	Articles

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18:30	control	Marcos	de Medicina Preventiva y Salud Pública	evaluation
19:00-20:30	Studies	A. Lobo		

5.5. Bibliography and recommended resources

Books

1. Fletcher RH, Fletcher SW,. Epidemiología Clínica 4ª ed. Barcelona: Wolters Kluwer, 2008. *Libro avanzado de epidemiología orientada a la práctica clínica.*
2. Gordis L. Epidemiología. Tercera edición. Madrid: Elsevier, 2005. *Libro de referencia con un nivel intermedio.*
3. Rothman KJ, Greenland S, Lash TL. Modern Epidemiology 3d edition. Lippincott, William & Wilkins, 2008. *Completo y extenso manual de epidemiología avanzada.*
4. Szklo M, Nieto J. Epidemiología intermedia. Conceptos y aplicaciones. Madrid, Díaz de Santos 2003.
5. De Irala Estévez J, Martínez-González MA, Seguí Gómez M. Epidemiología aplicada. Barcelona: Ed. Ariel. 2008.
6. Piédrola Gil. Medicina preventiva y Salud Pública (capítulos 7 a 19). Barcelona, Ed. Elsevier 2008.
7. Pardo Merino A. y Ruiz Díaz M.A.-SPSS 11. Guía para el análisis de datos Ed. Mc Graw Hill. 2002.
8. Martínez Navarro F et al. Vigilancia Epidemiológica. Madrid, McGraw-Hill/Interamericana 2004.
9. Julian DG, Pocock SJ. Interpreting a trial report. In: Pitt B, Julian D, Pocock S, editors. Clinical trials in cardiology. London: Saunders; 1997
10. Delgado M, Llorca J, Doménech, JM. Estudios experimentales, 3ª ed. Barcelona: Signo; 2008
11. MacMahon B. Pugh TF. Principios y métodos de Epidemiología 2ª ed. Mexico: Prensa Médica Mexicana; 1975
12. Sharon E. Straus, W. Scott Richardson, Paul Glasziou, R. Brian Haynes. Medicina Basada en la evidencia 3ª ed. Elsevier; 2006
13. Javier Sánchez-Caro, Fernando Abellan. Investigación Biomédica en España: Aspectos Bioéticos, Jurídicos y Científicos. Granada: Ed. Comares; 2007
14. William G. Cochran, Gertrude M. Cox. Diseños Experimentales. Mexico: Ed Trillas; 1987
15. Luis Carlos Silva Ayçaguer. Cultura estadística e investigación científica en el campo de la salud: una mirada crítica. Madrid: Díaz de Santos, 1997.

Websites

Organisms

- Instituto de Salud Carlos III: <http://www.isciii.es/publico/>
- Organización Mundial de la Salud: <http://www.who.int/en/>
- Ministerio de Sanidad y Política Social: www.msp.es
- Instituto Nacional de Estadística: <http://www.ine.es/>

Epidemiology and statistics resources

- Material from the Unit of Clinical Biostatistics of the Univeristy Hospital Ramón y Cajal of Madrid

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http://www.hrc.es/bioest/M_docente.html

- Statistical data analysis software on the Internet: <http://www.fisterra.com/mbe>
- Self-learning webpage for fundamental contents of statistics: <http://e-stadistica.bio.ucm.es>
- Biostatistics of the University of Malaga. Present notes on theory and excersises: <http://www.bioestadistica.uma.es>
- Supercourse: <http://www.pitt.edu/~super1/>
- Catalog of resources in statistics and epidemiology: http://www.rcm.upr.edu/PublicHealth/bio-epi/BE_internet.htm
- Epi Info: <http://www.cdc.gov/epiinfo/>
- Epidat: http://www.sergas.es/MostrarContidos_N3_T02.aspx?IdPaxina=60033&uri=http://dxsp.sergas.es/ApliEdatos/Epidat/gal/def
- Critical reading references : www.redcaspe.org/homecaspe.asp
- Visita Guiada Pubmed: <http://escuela.med.puc.cl/recursos/mbe2001/guiadamedline.html>
- Epidemiological and medical calculators:
 - o <http://www.fisterra.com/calculmed/index.asp>
 - o <http://www.fisterra.com/calculmed/otrascalculadoras.asp>
- Epidemiological calculators: <http://www.infodoctor.org/rafabravo/herramientas.htm>
- Statistical calculators <http://ktclearinghouse.ca/cebm/practise/ca/calculators/statscalc>
- NNT calculation: <http://www.seh-lelha.org/nnt.htm>

Articles

- A. Lawrence Gould. Interim analyses for monitoring clinical trials that do not materially affect the type I error rate. *Statisticsi Medicine*, vol.11, 55-66 (1992)
- Delgado-Rodríguez M, Sillero M. Revisión: diseños híbridos de estudios de cohortes y de estudios de casos y controles. *Gac Sanit* 1995; 9; 42-52
- CARRACEDO-MARTINEZ, Eduardo et al . Fundamentos y aplicaciones del diseño de casos cruzados. *Gac Sanit*, Barcelona, v. 23, n. 2, abr. 2009

References of the recommended bibliography

<http://biblioteca.unizar.es/>