

68717 - Cartographic tools for epidemiological and public health studies

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

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 participative sessions, practical exercises with GIS software, group activities, and autonomous work.

A high level of student participation will be required from all students throughout the course.



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A portfolio is required from any student, which consist of a collection of the learner's work done over the course and which shows the development of their acquired knowledge.

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: 10 hours

• Individual or group activities: 8 hours

Guided tasks: 3.24 hours

5.3. Syllabus

The course will address the following topics:

Topic 1.- The Geographic and Cartographic Framework

Topic 2.- The cartographic process

Topic 3.- Planning and Composition

Topic 4.- Base map and thematic data

Topic 5.- Symbolization

Topic 6.- Decision-making process

Topic 7.- Layout Design

Topic 8.- Critique of maps

Topic 9.- The use of maps in Epidemiology and Public Health

5.4. Course planning and calendar

The course is divided into 9 topics and lasts one week during the second semester. Each session takes five hours.

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 Master's website (http://medicina.unizar.es/mastersp)

5.5.Bibliography and recommended resources

- Bertin, Jacques. Semiology of graphics: diagrams, networks, maps / Jacques Bertin. 1967
- Brewer, Cynthia A.. Designing better maps :a guide for GIS users / Cynthia A. Brewer. Redlands, Calif. : ESRI Press, 2005
- Dent, Borden D. Cartography: thematic map design / Borden D. Dent, Jeffrey S. Torguson, Thomas W. Hodler. 6a
 ed. New York: McGraw-Hill Higher Education, 2009
- Thematic cartography and geovisualization / Terry A. Slocum ... [et al.] . 3rd ed. Upper Saddle River, NJ: Pearson Prentice Hall, cop.200
- Zanin, Christine. Savoir faire une carte : Aide à la conception et à la réalisation d'une carte thématique univariée / Christine Zanin, Marie-Laure Trémélo . Paris : Belin, D.L. 2010
- Brewer, Cynthia A., Designed maps: a sourcebook for GIS users / Cynthia A. Brewer. 1st. ed. California: ESRI, 2008
- Denègre, Jean. Sémiologie et conception cartographique / Jean Denègre.
- Elements of cartography / Arthur H. Robinson...[et al.] . 6th ed. New York [etc.] : John Wiley & sons, cop. 1995
- MacEachren, Alan M.: How maps work: representation, visualization, and design / Alan M. MacEachren New York;
 London: Guilford Press, cop. 2004



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- Peterson, Gretchen N.. GIS cartography : a guide to effective map of design / Gretchen N. Peterson. Boca Raton : CRC Press, c2009.
- Poidevin, Didier. La carte moyen d'action :conception réalisation / Didier Poidevin. Paris : Ellipses, cop. 1999
- The map reader: theories of mapping practice and cartographic representation / edited by Martin Dodge, Rob Kitchin and Chris Perkins Oxford: Willey-Blackwell, 2011
- Tyner, Judith A.. Principles of map design / Judith A. Tyner New York [etc]: Guilford, 2010