1.- COURSE DESCRIPTION

Degree:	Human Nutrition and Dietetics
Subject:	Nutritional Epidemiology (201055)
Area:	Preventive Medicine and Public Health
Academic year:	2017-2018
Term:	Second
Total credits:	6
Course:	Third
Type:	Compulsory
Language:	English

Teaching model:	C1	
Basic teaching (BT):		50% (23h)
Practical teaching (PT):		50% (22h)
Guided Academic Activities		

2.- PROFESSORS

2.1. Subject coordinator	
Name:	Angel R. Zapata Moya
School:	Faculty for Experimental Sciences
Departament:	Social Anthropology, Basic Psychology and Public Health
Area:	Preventive Medicine and Public Health
Category:	Assistant Professor
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3. ACADEMIC PLAN

3.1. Goals

Get enough knowledge to act on the general population, developing and participating in epidemiological studies, intervention programs and policy programs from a nutritional point of view.

To understand that epidemiology is essential for the study of populations health problems, making the necessary preventive and community approach to health problems.

To acquire knowledge and skills of epidemiological methods that will be needed for their future jobs.

3.2. Contribution to the Academic Plan

The course of Nutritional Epidemiology will provide students with a basic knowledge of techniques and epidemiological tools needed in their academic and professional field.

The main objective is to provide an overview of epidemiology as a basic science discipline of Public Health and its application to the field of nutrition.

It will introduce students to the knowledge and interpretation of epidemiological designs and its application in the study of the relationship between diet-food patterns and health-illness process.

Student will learn to use main epidemiological bibliography data based and to perform critical readings of scientific literature in the field of epidemiology

We will focus on the way to formulate research questions and its theoretical foundations in relation to socio-epidemiological theories and current debates. We also will work on the way to formulate specific hypotheses and choosing better adapted epidemiological research design according with our research questioning. Finally we will introduce some techniques for collection, analyzing and interpreting data on population health.

3.3. Recommendations

We recommend taking the course during the second semester of the third year, with good marks in biostatistics. We also recommend a basic knowledge of Statistical Package for the Social Sciences (SPSS) and Excel.

4. SKILLS

4.1 Skills of the degree developed in the course

1. The ability to apply the knowledge to your area of work, being able to elaborate and defend arguments, as well as solve problems (CG2).
2. The ability to gather and interpret relevant data that allow you to make judgments derived from a reflection on relevant social, ethical or scientific issues (GC3).
3. The capability to transmit information, ideas, problems and solutions to an advanced and expert public (CG4).
4. Sufficient learning capabilities to carry out later studies with a high degree of autonomy (CG5).
5. The analysis and synthesis abilities (CG6).
6. Information management skills and knowledge expression (ability to search and analyze information from various sources) (CG7)
7. The knowledge to prepare oral and written presentations (CG8).
8. Critical thinking in academic context (CG11).
9. Teamwork (GC12).
10. Skills for the use of Foreign Language (English) (GC15).

4.2. Skills of the module trained during the course

1. To know analytical and research techniques in nutrition (CE27).
2. To know the nutritional epidemiology. Consumption, eating habits in the population and methods of assessing the nutritional status of population groups (CE34).
3. To know the relationship between food and culture. Historical and cultural factors related to food (CE35).
4. To identify the factors that influence food and nutrition (CE39).
5. To assess the individual and collective nutritional status (EC41).
6. To design and interpret food surveys (CE42).
7. To integrate and relate nutritional knowledge and its relation to health (CE48).
8. To be able to adapt the future professional practice to the evolution of scientific knowledge, social and cultural changes (CE55).
9. To participate in multidisciplinary teams in the areas of research, innovation and development (CE56).

5. CONTENTS (TOPICS) AND SCHEDULE

Basic Teaching Units (See syllabus at the end of this document)

1. Overview of epidemiology and nutritional epidemiology: relevant concepts.
2. Health and nutrition indicators: measures of frequency.
3. Indicators of health and nutrition: measures of association.
4. Epidemiological designs
5. Sources of variation in the diet and dietary assessment methods.
6. Food eating as a social practice and its implications for epidemiological research.
7. Substantive examples in nutritional epidemiology.

Practical Teaching (See syllabus at the end of this document)

EPD 1: The relevance of Theory in Epidemiology research and paper selection to write a critique along the course.
EPD 2: Measures of disease frequency and its Confidence Intervals.
EPD 3: Measures of association: relative risk and incidence rate ratio and its Confident Intervals.
EPD 4: Measures of association: Odds Ratios and Prevalence Ratios and its Confidence Intervals.
EPD 5: Hypotheses formulation and epidemiology design.
EPD 6: Dietary assessment methods and data based examples.
EPD 7: Oral presentation of the written critique of the research paper in nutritional epidemiology.

6. METHODOLOGY AND RESOURCES

Being aware of the complexity of the educational work in the construction of knowledge of students, our aim is:

1. To avoid excessive amount of information and emphasize the nuclear aspects of the program through the different lectures.

2. To encourage participation in individual and group work on specific issues in order to learn the most important aspects of the subject.
3. To transform the classes in discussion forums.

Resources

1. Library resources: The material provided, although relevant, should not be considered as the only way of learning the issue.

2. Multimedia Material: Theoretical and practical classes will be complemented with multimedia materials that support the discourse of teachers.
3. UPO Virtual Campus.

7. ASSESSMENT

The competence of the Nutritional Epidemiology course will be evaluated according to the following scheme in which the weight of each activity is specified:

1. Final exam will account for 50% of the final mark. This proportion will be distribute as follow:
   a. 30% regarding to the theoretical content of the course will be assessed in a final exam. This test consists of 30 multiple choice questions, each with four answers, of which only one is correct. The wrong questions deducted 0.5, ie every two questions answered incorrectly will mean subtracting a question well answered. In order to pass the final exam is necessary to obtain 50% of the correct questions.
   b. 20% came from two or three questions or problems about the theoretical content, main measures in epidemiology and its interpretation
2. Practical teaching attendance and class exercises will account for 15% of the final mark.
3. Homework Assignment and participation in class will account for 10% of the final mark
4. Written critique of published paper in nutritional epidemiology will account for 15% of the final mark
5. Written critique-Oral Presentation will account for 10% of the final mark

To pass this course, it is mandatory to attend all the practical teaching sessions. The student who sums a mark of 5 out of 10 or higher after the assessment of each one of the evaluation activities will pass the course.

Otherwise, this subject follows article 8 of the rules and regulations of assessment activities in this university. This implies that, students that do not pass the continuous evaluation, may sit an exam for those parts that were not accomplished, while keeping the marks of those parts that were accomplished.

In addition, students may choose within the first three weeks of the course whether they want to be assessed by the continuous evaluation method or by a final exam and a research project. The final exam will be held in June comprising all the competences and skills included in the teaching program. A mark of 5 or higher is required to pass this exam. This exam comprises all the competences and skills included in this teaching program. A mark of 5 out of 10 or higher is required to pass this exam. Details of the research project will be discussed with the professor. Detailed information can be found in article 8 of the rules and regulations of assessment activities

in this university.

8. RECOMMENDED LITERATURE

Alimentación y Salud Pública. Martínez JA, Astiasarán I, Madrigal H (editores). 2nda edición. Madrid: McGraw Hill-Interamericana, 2002.

Boeing, H. (2013). Nutritional epidemiology: New perspectives for understanding the diet-disease relationship?. *European journal of clinical nutrition*, *67*(5), 424-429.

Delormier, T., Frohlich, K. L., & Potvin, L. (2009). Food and eating as social practice–understanding eating patterns as social phenomena and implications for public health. *Sociology of health & illness*, *31*(2), 215-228.

Epidemiología aplicada. De Irala-Estévez J (editor), Martínez-González MA, Seguí-Gómez M (coeditores). 2nda edición. Barcelona: Ariel, 2008.

Epidemiologic Research and Information Center (ERIC) Notebook. Web access: http://sph.unc.edu/nciph/eric/

Epidemiology: an introduction. 2nd ed. Rothman, K. J. New York: Oxford University Press, 2012.

Fundamentos de epidemiología. 6a ed (rev. y ampl.). Ahlbom, A.; Norell, S. Madrid: Siglo XXI, 2007.

Fundamentos de epidemiología. Colimon, K.M. Madrid: Ediciones Díaz de Santos S.A., 1990.

Krieger, N. (1994). Epidemiology and the web of causation: has anyone seen the spider?. *Social science & medicine*, *39*(7), 887-903.

Krieger, N. (2011). *Epidemiology and the people's health: theory and context*. Krieger, N. Oxford University Press, 2011.

Medicina Preventiva y Salud Pública. Piédrola, G.; Del Rey, J.; Domínguez, M. [et al.]. 11ª Edición. Barcelona: Masson-Salvat, 2008.

Nutrición y Salud Pública. Métodos, bases científicas y aplicaciones. Serra-Majem L, Aranceta J (editores). 2nda edición. Barcelona: Masson, 2006.

Nutritional epidemiology. Willett WC (editor). 2nd. Edition. New York: Oxford University Press, 1998.

Rothman, K. J., & Greenland, S. (2005). Causation and causal inference in epidemiology. *American journal of public health*, *95*(S1), S144-S150.

Specific readings will be detailed during the course