

## 1.- COURSE DESCRIPTION

Degree:	Human Nutrition and Dietetics
Subject:	Nutritional Epidemiology ( 201055)
Area:	Preventive Medicine and Public Health
Academic year:	2015-2016
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
Department:	Social Anthropology, Basic Psychology and Public Health
Area:	Preventive Medicine and Public Health
Category:	Part time lecturer
Tutorial time:	Mondays, Wednesdays and Fridays from 17 to 19, appointment required
Office:	14.1.31
E-mail:	arzapmoy@upo.es
Phone:	954349084

### Main profesor

Name:	Associate Professor (Profesor asociado)
School:	Faculty for Experimental Sciences
Department:	Social Anthropology, Basic Psychology and Public Health
Area:	Preventive Medicine and Public Health

Category:	Part time lecturer
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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

## 2016-2017 Teaching Program

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 Degree competences developed in this course

1. To apply knowledge to your work area and competence to develop and sustain arguments, as well as skills to solve problems.
2. To gather and analyze relevant data in order to make judgments on relevant social, ethical or scientific subjects.
3. To perform further studies with a high degree of autonomy.
4. Management skills of information and expression of knowledge (ability to retrieve and analyze information from various sources).
5. Teamwork.
6. Ability to learn, to constantly renew and update knowledge.
7. Respect for human rights.

#### 4.2. Module skills developed in this subject

1. To know different methods of assessing the nutritional status of populations.
2. To assess nutritional status in different communities.
3. Know the epidemiologic tools in order to develop nutritional policies.

#### 4.3. Course-specific competences

1. To calculate the main measures of quantification and comparison of nutritional problems in populations. Knowing how to use and analyze them in a proper way.
2. To acquire basic skills in epidemiology, including quantification, analysis and evaluation of experimental results.
3. To gather and analyze epidemiological data.
4. To search major bibliographic databases in the nutritional field.
5. To know the different methods of assessing the nutritional status of populations.
6. To assess trends of nutritional problems and their risks.
7. To apply epidemiology in the evaluation of new technologies, as well as surveillance and early detection of diseases.
8. To use the scientific and technical literature in Epidemiology, acquiring the ability to perceive future ways of development.
9. Know how to use the main sources of information for the development of health, demographic and social indicators and their use and interpretation.
10. To assess individual nutritional status and communities.
11. Designing and interpreting dietary surveys.
12. To develop a proper oral and written expression.

13. Participate in multidisciplinary teams in the different areas of research, innovation and development.

## 5. CONTENTS (TOPICS) AND SCHEDULE

### **Basic Teaching**

1. Epidemiology and health. The theoretical perspective matters to orient research hypothesis in epidemiology.
2. Health and nutrition indicators. Measures of frequency.
3. Indicators of health and nutrition. Measures of effect or association.
4. Screening . Internal validity and security.
5. Outbreak surveillance.
6. Epidemiological studies (research design).
7. Main sources of bias and error in nutritional epidemiology.
8. Causation in health and nutrition.
9. Epidemiological research in nutrition: evaluating diet and dietary patterns at the population level
10. Critical reading of nutrition research. May 6, 11, 13.

### **Practical Teaching**

- EPD 1.- Outbreak surveillance. January 30th.  
EPD 2.- Confidence Intervals. February 13th.  
EPD 3.- Measures of frequency. March 13th.  
EPD 4.- Measures of association. March 20th.  
EPD 5.- Internal validity and security of screening test. March 27th.  
EPD 6.- Epidemiological studies. Abril 17th.  
EPD 7.- Research project. May 8th.

## 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.

## 2016-2017 Teaching Program

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 60% of the final mark.  
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.
2. Practical teaching sessions will account for 30% of the final mark.
3. Learning folder 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 programme. 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

- Fundamentos de epidemiología. 6a ed (rev. y ampl.). Ahlbom, A.; Norell, S. Madrid: Siglo XXI, 2007.
- Epidemiology: an introduction. 2nd ed. Rothman, K. J. New York: Oxford University Press, 2012.
- Fundamentos de epidemiología. Colimon, K.M. Madrid: Ediciones Díaz de Santos S.A., 1990.
- Medicina Preventiva y Salud Pública. Piédrola, G.; Del Rey, J.; Domínguez, M. [et al.]. 11ª Edición. Barcelona: Masson-Salvat, 2008.
- Epidemiología aplicada. De Irala-Estévez J (editor), Martínez-González MA, Seguí-Gómez M (coeditores). 2nda edición. Barcelona: Ariel, 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.
- Alimentación y Salud Pública. Martínez JA, Astiasarán I, Madrigal H (editores). 2nda edición. Madrid: McGraw Hill-Interamericana, 2002.