



Guía docente / *Course Syllabus*

2018-19

1. Descripción de la Asignatura / *Course Description*

Asignatura <i>Course</i>	EPIDEMIOLOGÍA NUTRICIONAL (docencia en inglés)
Códigos <i>Code</i>	201055
Facultad <i>Faculty</i>	Facultad de Ciencias Experimentales
Grados donde se imparte <i>Degrees it is part of</i>	Grado en Nutrición Humana y Dietética
Módulo al que pertenece <i>Module it belongs to</i>	Salud pública y nutrición comunitaria
Materia a la que pertenece <i>Subject it belongs to</i>	Nutrición comunitaria
Departamento responsable <i>Department</i>	Antropología Social, Psicología Básica y Salud Pública
Curso <i>Year</i>	3º
Semestre <i>Term</i>	2º
Créditos totales <i>Total credits</i>	6
Carácter <i>Type of course</i>	Obligatoria
Idioma de impartición <i>Course language</i>	Inglés
Modelo de docencia <i>Teaching model</i>	C1

Clases presenciales del modelo de docencia C1 para cada estudiante: 23 horas de enseñanzas básicas (EB), 22 horas de enseñanzas prácticas y de desarrollo (EPD) y 0 horas de actividades dirigidas (AD). Hasta un 10% de la enseñanza presencial puede sustituirse por docencia a distancia (también presencial, pero posiblemente asincrónica), de acuerdo con la programación de la Asignatura publicada antes del comienzo del curso.

Number of classroom teaching hours of C1 teaching model for each student: 23 hours of general teaching (background), 22 hours of theory-into-practice (practical group tutoring and skill development) and 0 hours of guided academic activities. Up to 10% of face-to-face sessions can be substituted by online teaching, in accordance with the course schedule published before it begins.

2. Responsable de la Asignatura / *Course Coordinator*

Nombre <i>Name</i>	Ángel Ramón Zapata Moya
Departamento <i>Department</i>	Antropología Social, Psicología Básica y Salud Pública
Área de conocimiento <i>Field of knowledge</i>	Medicina Preventiva y Salud Pública
Categoría <i>Category</i>	Profesor Ayudante Doctor
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3. Ubicación en el plan formativo / *Academic Context*

Breve descripción de la asignatura <i>Course description</i>	Nutritional Epidemiology is part of the Public Health and Community Nutrition module. This course offers students theoretical and practical knowledge on the methodologies, design and critical interpretation of epidemiological research. It complements the teachings of Public Health course since it introduces the students in an essential discipline for the study of the causes of disease and its population distribution. In addition, it makes it possible to critically review the construction of causal explanations and to discern their potential implications for nutritional interventions in public health and policies.
Objetivos (en términos de resultados del aprendizaje) <i>Learning objectives</i>	OBJ1. Manage the basic concepts of nutritional epidemiology. OBJ2. Be able to use and interpret the main measures of quantification and comparison of population nutritional problems. OBJ3. Be able to understand and discuss epidemiological research designs to answer relevant research questions in the field of nutrition and its relationship with health-illness processes. OBJ4. Be able to demonstrate knowledge of statistical methods used in nutritional epidemiology studies. OBJ5. Be able to identify and assess the most appropriate dietary evaluation methods according specific research questions. OBJ6. Be able to understand diet and the configuration of dietary patterns as a social practice and its implications for epidemiological research. OBJ7. Be able to read and critically interpret research papers addressing the relationship of diet and health.
Prerrequisitos <i>Prerequisites</i>	To have passed the subject of Public Health. In addition, students should have a basic knowledge of statistics, a proper handling of the SPSS statistical package and of excel as an auxiliary tool for the calculation and tabulation of data.
Recomendaciones <i>Recommendations</i>	We recommend following the Syllabus provide by the professor during the first class. Making the home work and required reading

	before theoretical and practical sessions.
Aportaciones al plan formativo <i>Contributions to the educational plan</i>	<p>Fundamentals of nutritional epidemiology focus on the collection, analysis, and interpretation of data on dietary intake and nutritional status of diverse population groups. The course emphasizes critical evaluation of dietary assessment methods and the results of research studies associating intake of foods and nutrients or food consumption patterns with ill-health processes:</p> <p>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.</p> <p>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.</p> <p>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. There is a special focus on critically interpreting findings in epidemiological studies.</p> <p>Finally, the course will provide a framework to understanding food and eating as social practice and its implications for epidemiological research on nutrition.</p>

4. Competencias / Skills

Competencias básicas de la Titulación que se desarrollan en la Asignatura <i>Basic skills of the Degree that are developed in this Course</i>	
Competencias generales de la Titulación que se desarrollan en la Asignatura <i>General skills of the Degree that are developed in this Course</i>	<p>CG2 - Capacidad para aplicar los conocimientos a su área de trabajo, pudiendo elaborar y defender argumentos, así como, resolver problemas.</p> <p>CG3 - Capacidad para reunir e interpretar datos importantes que le permitan realizar juicios derivados de una reflexión sobre temas relevantes de índole social, ética o científica.</p> <p>CG4 - Capacidad para transmitir información, ideas, problemas y soluciones a un público avanzado y experto.</p> <p>CG5 - Desarrollo de las habilidades de aprendizaje suficientes para poder llevar a cabo estudios posteriores con un alto grado de autonomía.</p> <p>CG6 - Capacidad de análisis y síntesis.</p> <p>CG7 - Habilidades de gestión de la información y expresión del conocimiento (habilidad para buscar y analizar información proveniente de diversas fuentes).</p> <p>CG8 - Saber exponer en forma escrita y oral.</p> <p>CG11 - Capacidad crítica.</p> <p>CG12 - Trabajo en equipo.</p> <p>CG15 - Habilidades para la utilización de Lengua Extranjera (Inglés)</p>
Competencias transversales de	

la Titulación que se desarrollan en la Asignatura <i>Transversal skills of the Degree that are developed in this Course</i>	
Competencias específicas de la Titulación que se desarrollan en la Asignatura <i>Specific competences of the Degree that are developed in the Course</i>	<p>CE27 - Conocer técnicas analíticas y de investigación en nutrición.</p> <p>CE34 - Conocer la epidemiología nutricional. El consumo, los hábitos alimentarios en la población y los métodos de valoración del estado nutricional de grupos de población.</p> <p>CE39 - Identificar los factores que influyen en la alimentación y la nutrición.</p> <p>CE41 - Evaluar el estado nutricional individual y en colectividades.</p> <p>CE42 - Diseñar e interpretar encuestas alimentarias.</p> <p>CE48 - Integrar y relacionar los conocimientos nutricionales y su relación con la salud.</p> <p>CE54 - Manejar las herramientas básicas en técnicas informáticas y computacionales de información y comunicación.</p> <p>CE55 - Ser capaz de adaptar el futuro ejercicio profesional a la rápida evolución de los conocimientos científicos y a los cambios sociales y culturales.</p> <p>CE56 - Participar en equipos multidisciplinares en las áreas de la investigación</p>
Competencias particulares de la asignatura, no incluidas en la memoria del título <i>Specific skills of the Course, not included in the Degree's skills</i>	<p>E1. Basic management of the methodology used in nutritional epidemiology.</p> <p>E2. Ability to correctly interpret the results of scientific research related to nutritional epidemiology.</p> <p>E3. Discuss the validity of the results of epidemiological studies related to food and nutrition.</p> <p>E4. Be able to determine the nutritional and epidemiological data needed to solve a research question.</p> <p>E5. Know how to identify the advantages and disadvantages of the use of tools to measure diet according specific research questions.</p> <p>E6. Know how to interpret the frequency and association measures used in epidemiology.</p> <p>E7. Know how to measure and interpret eating patterns at population level.</p>

5. Contenidos de la Asignatura: temario / *Course Content: Topics*

TEMA 1	OVERVIEW OF EPIDEMIOLOGY AND NUTRITIONAL EPIDEMIOLOGY: RELEVANT CONCEPTS
1.1	Analytical and descriptive epidemiology
1.2	Population, people and time
1.3	Variables in epidemiology
TEMA 2	HEALTH AND NUTRITION INDICATORS: FREQUENCY MEASURES
2.1	Prevalence and incidence
2.2	Cumulative incidence and incidence density
2.3	Standardization and adjustment for comparisons
TEMA 3	EPIDEMIOLOGIC MEASURES OF ASSOCIATION
3.1	Introduction of association measures
3.2	Cumulative incidence ratio
3.3	Incidence density ratio

3.4	Odds ratio and prevalence ratio
3.5	Impact measures: estimation of prevention possibilities
TEMA 4	CAUSALITY AND CAUSAL INFERENCE: THE RELEVANCE OF THE THEORY FOR THE ORIENTATION OF RESEARCH QUESTIONS
4.1	From association to causality: inference in epidemiologic studies
4.2	The relevance of the theory in testing hypotheses
4.3	Bias, confounders and Interaction
4.4	Validity and reliability
TEMA 5	STUDY DESIGN IN EPIDEMIOLOGY
5.1	Some relevant concepts
5.2	Ecological studies
5.3	Cross-sectional studies
5.4	Case-control studies
5.5	Cohort studies
5.6	Experimental studies
TEMA 6	DIETARY ASSESMENT METHODS IN EPIDEMIOLOGY
6.1	Sources of variation in dietary intake
6.2	Days needed for estimation of usual nutrient intakes
6.3	Validity and reproducibility of dietary assessment methods
6.4	Implications of total energy intake for the study of relationships between diet and disease
6.5	24-hour records and dietary diary in nutritional epidemiology
6.6	food frequency questionnaires and remote diet reminder
TEMA 7	FOOD EATING AS A SOCIAL PRACTICE AND ITS IMPLICATIONS FOR EPIDEMIOLOGICAL RESEARCH.
7.1	Introduction to food eating as a social practice and research challenges
7.2	Sociodemographic and psychosocial variables
7.3	Cultural capital and healthy eating practices
7.4	Implications for public policies and interventions

6. Metodología y recursos / *Methodology and Resources*

Metodología general <i>Methodology</i>	The teaching methodology will be based on the development of theoretical or expository classes in which the whole student body will participate, the development of works guided by the professor during the practical teachings and the student autonomous work (readings and critical review of research paper). Individual or group tutorials play an important role in the development of the learning process because it helps students to consolidate the theoretical knowledge and practical abilities, these tutoring sessions will be planned throughout the course as a way of monitoring the students' learning process.
Enseñanzas básicas (EB) <i>General teaching</i>	The basic teaching will be given on a complete group of 60 students. It incorporates the theoretical teaching and fundamentals methodology of nutritional epidemiology. Students are expected to regularly contribute to class discussions in a positive and valuable manner and to be respectful of peers and guest lecturers. Regular attendance is recommended. Conferences, projections, visits, etc. may also be incorporated.

Enseñanzas prácticas y de desarrollo (EPD) <i>Theory-into-practice</i>	Practical teachings will be given in small groups (20 students): during these sessions problems and exercises will be solved to facilitate the acquisition of skills. In addition, all students will write up an evaluation (critique) and give an oral presentation to the class on the critique of a nutritional epidemiology empirical paper of their choice.
Actividades académicas dirigidas (AD) <i>Guided academic activities</i>	Not applicable

7. Criterios generales de evaluación / *Assessment*

Primera convocatoria ordinaria (convocatoria de curso) <i>First session</i>	<p>El 50% de la calificación procede de la evaluación continua. El 50% de la calificación procede del examen o prueba final. The attendance and the work carried out during the practical and developmental teachings will be evaluated. To make it easier for students to attend all EPD sessions, it is proposed that when a student has justifiable difficulty attending the day and time assigned to their group, they will contact the teacher to plan their attendance in one of the other two groups. Failure to attend an EPD session means that the student will not be assessed in that EPD. In addition, as part of the ongoing assessment, students will be required to undertake a series of recommended readings throughout the semester to gain access to the highest possible grade. The continuous evaluation is based on the following scheme:</p> <ol style="list-style-type: none"> 1. Practical teaching attendance and class exercises will account for 15% of the final mark. 2. Homework Assignment and participation in class will account for 10% of the final mark. 3. Written critique of published paper in nutritional epidemiology will account for 15% of the final mark. 4. Oral Presentation will account for 10% of the final mark. <p>Final exam will account for 50% of the final mark. This proportion will be distributed as follow:</p> <p>Part a) 30% of the grading will be based on the theoretical content of the course. It will be assessed in a final exam of 30 multiple choice questions, each with four answers, of which only one is correct. The wrong questions deducted 0.5, (i.e.: every two questions answered incorrectly will mean subtracting a question well answered). To pass the final exam is necessary to obtain 50% of the correct questions.</p> <p>Part b) 20% of the grading will be based on questions or problems about the theoretical content and the interpretation of the main measures in epidemiology.</p>
Segunda convocatoria ordinaria (convocatoria de recuperación) <i>Second session (to re-sit the exam)</i>	The second call will be based on the same assesment criteria that the first one.
Convocatoria extraordinaria de noviembre <i>Extraordinary November session</i>	Se activa a petición del alumno siempre y cuando éste esté matriculado en todas las asignaturas que le resten para finalizar sus estudios de grado, tal y como establece la Normativa de Progreso y Permanencia de la Universidad.

	<p>Se evaluará del total de los conocimientos y competencias que figuren en la guía docente del curso anterior, mediante el sistema de prueba única.</p> <p>It is activated at the student's request. As established in the University's Progress and Permanence Regulations, once it has been proven that the student is enrolled in all the subjects remaining to complete his or her undergraduate studies. The total of the knowledge and competences that appear in the teaching guide of the previous academic year will be evaluated by means of the single test system.</p>
<p>Criterios de evaluación de las enseñanzas básicas (EB) <i>General teaching assessment criteria</i></p>	<p>Durante la evaluación continua: Active participation, regular attendance at class (although this is not compulsory) and discussions about readings suggested by the teacher to complete the theoretical classes.</p> <p>Durante el examen o prueba final (1ª convocatoria): Final exam will account for 50% of the final mark. This proportion will be distributed as follow:</p> <p>Part a) 30% of the grading will be based on the theoretical content of the course. It will be assessed in a final exam of 30 multiple choice questions, each with four answers, of which only one is correct. The wrong questions deducted 0.5, (i.e.: every two questions answered incorrectly will mean subtracting a question well answered). To pass the final exam is necessary to obtain 50% of the correct questions.</p> <p>Part b) 20% of the grading will be based on questions or problems about the theoretical content and the interpretation of the main measures in epidemiology.</p> <p>Durante el examen o prueba final (2ª convocatoria): The second call will be based on the same assesment criteria that the first one.</p>
<p>Criterios de evaluación de las enseñanzas prácticas y de desarrollo (EPD) <i>Theory-into-practice assessment criteria</i></p>	<p>Durante la evaluación continua: 1. Practical teaching attendance and class exercises will account for 15% of the final mark. 2. Homework Assignment and participation in class will account for 10% of the final mark. 3. Written critique of published paper in nutritional epidemiology will account for 15% of the final mark. 4. Oral Presentation will account for 10% of the final mark.</p> <p>Durante el examen o prueba final (1ª convocatoria): Durante el examen o prueba final (2ª convocatoria): The second call will be based on the same assesment criteria that the first one.</p>
<p>Criterios de evaluación de las actividades académicas dirigidas (AD) <i>Criteria of assessment of guided academic activities</i></p>	<p>Durante la evaluación continua: Not applicable Durante el examen o prueba final (1ª convocatoria): Not applicable Durante el examen o prueba final (2ª convocatoria): Not applicable</p>
<p>Puntuaciones mínimas necesarias para aprobar la Asignatura <i>Minimum passing grade</i></p>	<p>1ª convocatoria: In order to pass the course it is necessary to obtain a grade of 5 in both the exam and the practical part. Given some of the circumstances contemplated by the university regulation, students who do not take part in the continuous assessment must pass the final exam and the presentation of a research paper, applying the contents of the subject in a practical way.</p> <p>2ª convocatoria: In order to pass the course it is necessary to obtain a grade of 5 in both the exam and the practical part.</p>
<p>Material permitido <i>Materials allowed</i></p>	<p>Calculator</p>

<p>Identificación en los exámenes <i>Identification during exams</i></p>	<p>En cualquier momento de la realización de una prueba de evaluación los profesores podrán requerir la acreditación de la identidad de cualquier estudiante, mediante la exhibición de su carnet de estudiante, documento nacional de identidad, pasaporte u otro documento válido a juicio del examinador. Si no lo hiciese, el estudiante podrá continuar la prueba, que será calificada solo si la documentación es presentada en el plazo que el examinador establezca.</p>
<p>Observaciones adicionales <i>Additional remarks</i></p>	<p>The assessment process is according the article 8 of the rules and regulations of assessment activities in Universidad Pablo de Olavide. 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.</p> <p>In addition, given some of the circumstances contemplated by the university regulation (mobility program or a high-level athlete program, as well as those affected by duly accredited reasons of work, serious health or force majeure), students would be assessed by means of a final exam and the defense of a research project. The final exam will be held at the end of second semester comprising all the competences and skills included in the teaching program. A mark of 5 or higher is required to pass this exam. The exam comprises all the competences and skills included in this teaching program. Details of the research project will be discussed with the professor during the course.</p>

Los estudiantes inmersos en un programa de movilidad o en un programa de deportistas de alto nivel, así como los afectados por razones laborales, de salud graves o por causas de fuerza mayor debidamente acreditadas, tendrán derecho a que en la convocatoria de curso se les evalúe mediante un sistema de evaluación de prueba única. Para ello, deberán comunicar la circunstancia al profesor responsable de la asignatura antes del fin del periodo docencia presencial.

Students enrolled in a mobility program or a program for high-level athletes, as well as students affected by work or serious health problems or reasons of force majeure duly accredited, will have the right to be evaluated during the first session through a single test evaluation system. To do this, they must report changes in their circumstances to the program coordinator before the end of the teaching period.

8. Bibliografía / *Bibliography*

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<p>Glosario</p>	<ul style="list-style-type: none"> • Last, J. M., Abramson, J. H., y Freidman, G. D. (Eds.)

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<p>Artículo</p>	<ul style="list-style-type: none"> • Krieger, N. (1994) “Epidemiology and the web of causation: has anyone seen the spider?”, <i>Social science & medicine, 39(7)</i> , pp. 887-903 • Krieger, N (2012) “Who and what is a “population”? Historical debates, current controversies, and implications for understanding “population health” and rectifying health inequities”, <i>Milbank Quarterly, 90(4)</i> , pp. 634-681 • Phelan, J. C., y Link, B. G. (2005) “Controlling disease and creating disparities: a fundamental cause perspective”, <i>The Journals of Gerontology Series B: Psychological Sciences and Social Sciences, 60(Special Issue 2), S27-S33</i> • Cockerham, W. C (2005) “Health Lifestyle Theory and the Convergence of Agency and Structure”, <i>Journal of health and social behavior, 46(1)</i> , pp. 51-67 • Marshall, J. R., y Chen, Z (1999) “Diet and health risk: risk patterns and disease-specific associations”, <i>The American journal of clinical nutrition, 69(6)</i> , pp. 1351-1356 • Margetts, B. M., & Pietinen, P. (1997) “European Prospective Investigation into Cancer and Nutrition: validity studies on dietary assessment methods”, <i>International journal of epidemiology, 26(suppl_1), S1</i>. • Bingham, S. A., Gill, C., Welch, A., Day, K., Cassidy, A., Khaw, K. T., ... & Day, N. E. (1994) “Comparison of dietary assessment methods in nutritional epidemiology: weighed records v. 24 h recalls, food-frequency questionnaires and estimated-diet records”, <i>British Journal of Nutrition, 72(4)</i> , pp. 619-643 • Margetts, B. M., & Nelson, M. (1993) “Design concepts in nutritional epidemiology”, <i>Clinical Nutrition Insight, 19(2), 6</i>. • Cade, J. E., Burley, V. J., Warm, D. L., Thompson, R. L., & Margetts, B. M. (2004) “Food-frequency questionnaires: a review of their design, validation and utilisation.”, <i>Nutrition research reviews, 17(1)</i> , pp. 5-22 • Hu, F. B. (2002) “Dietary pattern analysis: a new direction in nutritional epidemiology”, <i>Current opinion in lipidology, 13(1)</i> , pp. 3-9 • Marshall, J. R., & Chen, Z. (1999) “Diet and health risk: risk patterns and disease-specific associations”, <i>The American journal of clinical nutrition, 69(6), 1351S-1356S</i> • Rothman, K. J., & Greenland, S (2005) “Causation and causal inference in epidemiology”, <i>American journal of public health, 95(S1), S144-S150</i> • 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”, <i>Sociology of health & illness, 31(2)</i> , pp. 205-228 • Kamphuis, C. B., Jansen, T., Mackenbach, J. P., & van Lenthe, F. J. (2015) “Bourdieu’s cultural capital in relation to

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