Universidad Zaragoza

Academic Year/course: 2023/24

30824 - Public Health and Diet

Syllabus Information

Academic year: 2023/24
Subject: 30824 - Public Health and Diet
Faculty / School: 105 - Facultad de Veterinaria
Degree: 568 - Degree in Food Science and Technology
ECTS: 6.0
Year: 3
Semester: First semester
Subject type: Compulsory
Module:

1. General information

The objective of this subject is to train professionals who recognize the influence of diet on public health; who are able to carry out and critically interpret studies that analyse the association between dietary patterns and the occurrence of communicable and non-communicable diseases; who are capable of advising industry and administrations in the design and implementation of interventions aimed at achieving a healthy diet and, consequently, improving the health of the population.

The approaches and objectives of the course are aligned with the following Sustainable Development Goals (SDGs) of the United Nations Agenda 2030 (https://www.un.org/sustainabledevelopment/es/), in such a way that the acquisition of the learning results of the subject provides training and competence to contribute to some extent to their achievement:

Goal 2: Zero hunger.

Goal 3: Health and Wellness.

Goal 6: Clean water and sanitation.

Goal 10: Reduction of Inequalities

Goal 12: Responsible Production and Consumption

Goal 17: Alliances to Achieve Objectives.

2. Learning results

1. - Define the concept and the fields of action of Public Health, describe the determinants of the level of health of populations and analyse the consequences of nutrition on health and disease.

- Summarize the main public health problems and their relationship to food, identify the most prevalent health problems and use useful sources of information in the field of public health and food.

- Identify the levels of responsibility of the health system in relation to food.

2. -Establish the differences between the different types of studies in nutritional epidemiology and perform an epidemiological analysis with basic data.

-Define, calculate and interpret the main indicators of the level of health: demographic indicators, mortality rates, measurements of disease frequency.

-Estimate and interpret measures of frequency, association and impact in nutritional epidemiology studies and describe the phases of an outbreak investigation, applying them to the resolution of a case study.

-Perform a critical reading of published papers on food and health problems and identify the most common errors made in epidemiological studies (random errors and systematic errors) and discuss the validity of the results of epidemiological studies in the field of health and nutrition.

3. Use basic computer tools in epidemiology: spreadsheets, databases and freely available statistical and epidemiological analysis programs.

4. Identify the phases of a food-related health program. Comment on possible limitations, evaluate the evolution of food consumption in our country based on the available sources and describe the health policies available in our environment for the main health problems related to diet, including dietary recommendations and nutritional objectives.

5. Analyse and synthesize the key messages of health and nutrition promotion training materials.

6. Identify the possibilities for prevention of chronic diseases from food and analyse the importance of foodborne infectious diseases.

7. Develop the ability to synthesize information and present it orally, through the oral presentation of a teamwork.

8. Acquire the ability to read scientific documentation in English and use basic technical vocabulary in this language, reviewing

study documentation and web pages of institutions whose information is in this language.

3. Syllabus

Contents:

Block 1: Introduction to public health and food

1- Concept of health. Determinants of individual and collective health.

2- Historical evolution and current concept of Public Health.

3- Main health problems and their relation to food.

Block 2. Methods in Public Health and Food

4- Measurement of the level of health. Health information systems and indicators.

5-Nutritional epidemiology.

6-Systematic reviews and meta-analysis. Evidence-based nutrition.

7-Population assessment of food consumption.

8- Study of epidemic outbreaks. Investigation and control measures.

Block 3: Planning and health promotion in the food field

9- Planning and programming in the field of health and nutrition. Policies for sustainable food.

10- Preventive and health promotion activities. Education for healthy eating.

11-Social marketing and food.

Block 4: Food and health problems

12- Nutritional and metabolic diseases of greater prevalence in our environment.

13- Diet and cardiovascular diseases.

14- Diet and cancer.

Block 5: Food safety

15-Food safety.

Practice sessions:

1. Consultation and critical appraisal of scientific literature and websites of interest in public health and nutrition.

2. Description of a public health problem related to food, synthesizing literature and information found on the subject.

3. Development of indicators and resolution of nutritional epidemiology problems.

- Disease frequency measurements.
- Control of confounding factors
- Descriptive epidemiological studies.
- Analytical epidemiological studies.

4. Critical reading of a scientific article that studies the influence of diet on a health problem.

5. Study of an epidemic outbreak caused by the consumption of a food.

4. Academic activities

The subject is structured in 40 participative lectures and seminars and 20 hours of practical classes in small groups.

During the lectures, learning activities corresponding to the subject's syllabus are developed with an explanation of the theoretical contents by the teacher, . Subsequently, graphs, articles, news or documentaries related to the topic are discussed. Problem-based learning and case study methodologies are applied, promoting student involvement, reflection and/or information search.

The practical sessions focus on the practical application, under the teacher's supervision, of the theoretical concepts worked on in class, through training activities in the search for, consultation and integration of information about nutrition and health, solving problems of nutritional epidemiology, or training and critical reading of a scientific article.

5. Assessment system

Continuous assessment system. In case a student chooses this system, they must perform the following activities within the deadlines indicated:

-Test 1 (55%). Completion of an individual written test, with short open questions and problems, on the theoretical and practical contents of the subject . Knowledge of the subject, its application to the resolution of problems and practical cases, the use of appropriate terminology and critical thinking related to the subject will be valued.

-Test 2 (20%). Production and oral presentation of a group work consisting of a critical reading of a scientific article . The appropriate application of the related subject contents and the oral communication skills, as well as the participation and interest shown by each student, will be evaluated.

-Test 3 (25%). Complementary activities: exercises related to the contents worked on, debates on current topics related to the subject, and online tests. In these, the application of the contents of the subject to the resolution of problems and practical cases, as well as the development of critical thinking related to the subject will be mainly valued. The degree of knowledge of the subject will be assessed in the online tests.

It is necessary to attend all the practical sessions, except in the case of force majeure, duly justified, and to obtain a minimum grade of 5 in the written test and in the group work (a 4 in one of the two tests may be compensated if the weighted grade in the other tests is 6 or higher)

The grade of tests 1 and 3 will be maintained only in the first call and that of test 2 until the second call.

Global assessment test. All students are eligible for this system (i.e., those who do not opt for continuous evaluation, those who fail or those who want to improve their grade).

The second call of each academic year will always be carried out with this system.

-Test 1 (80%). Written exam with developmental questions and epidemiology problems, on the contents of the subject . Knowledge of the subject, its application to the resolution of problems and practical cases, the use of appropriate terminology and critical thinking related to the subject will be valued.

-Test 2 (20%). Preparation of a group/individual work, which will consist of a critical reading of a scientific article . The appropriate application of the related contents of the subject will be valued, as well as the participation and interest shown by each student in the case of group work.

It is necessary to obtain a minimum grade of 5 in both tests, taking the final exam and handing in the work on the official date established by the centre