

29206 - Scientific methods and nutritional epidemiology

Syllabus Information

Academic year: 2023/24

Subject: 29206 - Scientific methods and nutritional epidemiology

Faculty / School: 229 - Facultad de Ciencias de la Salud y del Deporte

Degree: 441 - Degree in Human Nutrition and Dietetics

ECTS: 6.0

Year: 1

Semester: Second semester

Subject type: Compulsory

Module:

1. General information

The objective is to achieve basic knowledge of the fundamentals of the scientific/epidemiological method for the critical interpretation of scientific findings published in the literature. This is a key issue, because from it, the nutrition and dietetics professional will incorporate and/or update the knowledge needed in their professional performance, both in the field of health care, community nutrition, the food industry, teaching and/or research.

These approaches and objectives are aligned with the following Sustainable Development Goals (SDGs) of the United Nations Agenda 2030 (<https://www.un.org/sustainabledevelopment/es/>):

Goal 3: Health and Wellness.

Goal 4: Quality Education.

It is recommended to have taken the subject "Biostatistics" and it is necessary to have a knowledge of English that allows the reading of scientific texts and understanding of spoken English, as well as basic computer skills.

2. Learning results

In order to pass this subject, the student must demonstrate that:

1. Knows the scientific method, the process of epidemiological research in the field of food and nutrition and understands its limitations.
2. Identifies and efficiently uses the main sources of information in the field of food, nutrition, lifestyles, and health aspects.
3. Is capable of designing information collection tools for the evaluation of the nutritional needs of the population and the identification of nutritional health determinants.
4. Knows how to design a basic research protocol.
5. Distinguishes the degrees of recommendation according to the different levels of scientific evidence.
6. Understands basic English vocabulary used in research methodology and/or epidemiology.

3. Syllabus

- Conceptual framework for health science research
- Clinical-epidemiological research protocol
- Introduction to Epidemiology and Nutritional Epidemiology
- Introduction to Causality in Epidemiology
- Measurement in Epidemiology. Frequency Measurements
- Association and Impact Measurements
- Design in Epidemiology. Descriptive Studies
- Observational and Experimental Analytical Studies
- Epidemiological Study of Outbreaks of Food Toxin Infection

- Sampling in epidemiological studies
- Measurement, selection and definition of variables in epidemiological studies
- Data collection methods. Questionnaire design and introduction to validation
- Evaluation of food consumption
- Evidence-based nutrition

4. Academic activities

- Class (36h)
- Problem and case solving and computerized practices (24h)
- Work and activities (27h)
- Study (60h)
- Assessment tests (3h)

Key dates will be the completion of the evaluation tests and the submission/presentation of assignments. It is considered very important to perform the exercises and assignments according to the quality criteria set, as well as the delivery of them in due time. In this way, the student is expected to develop time management skills in relation to these activities.

5. Assessment system

Continuous Assessment

1. Attendance and participation in face-to-face sessions (10%)
2. Writing and presentation of a clinical-epidemiological research proposal (20%)
3. Exam (70%)

To pass the subject by continuous evaluation will be necessary: 1) to attend all seminar and practical sessions in the computer classroom, and 2) to obtain 50% of the maximum weighting given for both the clinical-epidemiological research proposal and the exam (at least 40% in one of them can be compensated if the rest exceeds 50-60% and the average is a passing grade).

Final evaluation (Official dates)

1. Elaboration of a clinical-epidemiological research proposal with presentation (20%)
2. Exam (80%)

The student will have to take the final exam when they has not passed the subject by continuous evaluation or has waived it, in which case, they must request a tutorial by e-mail with the teacher in the first three weeks of classes to establish a fluid communication channel between both of them. In this regard, tutorials via e-mail and/or videoconference may be arranged.

In order to pass the final evaluation it is necessary to achieve 50% of the grade in both sections. An exception to this condition may be made for one of the tests as long as it reaches at least 40% of the grade and the average with the other test is a passing grade.