INSTITUTO DE HIGIENE E MEDICINA TROPICAL
DESDE 1902

Curricular UNIT Description

Characterization of the UC:

Name of the UC:
Health Research Methodologies

Acronym of the scientific area:
CC / Biol Comp/ I / M / B / Bq

Duration:
Semiannual

Working hours:
90 h

Contact Hours:
28 h

ECTS:
3

Observations:
NA

Responsible teacher and respective teaching load at the UC:
Ana Abecasis – 28h

Other teachers and their teaching loads at the UC:
Victor Pimentel – 4h

Learning objectives (knowledge, skills and competences to be developed by students):

In this Course, students are provided with a practical perspective for the development of a research project proposal applied to health and its various planning phases. Students will consolidate the knowledge and techniques acquired in other curricular units, developing skills to carry out research independently and plan and design a health research protocol.

At the end of this Course, students should be able to:
- Identify the steps involved in the planning and implementation of a health research project;
- Formulate research questions and testable hypotheses in health.

- Plan a study, so that it is possible to test the proposed hypotheses, defining objectives, study design, target population, sampling method and sample size and most appropriate data collection methods.
- Identify the most relevant ethical issues to be taken into consideration in the planning and implementation of the study;
- Recognize and apply the principles underlying the design and selection of samples;

Syllabus:

1. Fundamental principles of research, types of research and criteria for choosing research topics
2. Research process and principles for research planning
3. Study design: scientific rigor, project breakdown structure, quality control and assurance
4. Work plan and main stages of health research
5. Definition of research questions and formulation of hypotheses; null and alternative hypothesis
6. Sampling: target population, sample, sampling unit, desirable characteristics of the sample, causes of error, sampling methods
7. Ethical issues: ethical reflections and most important ethical principles, norms of ethical conduct
8. Designof questionnaires
9. Methods and techniques for data collection, experimental and observational studies, analytical and descriptive studies

Demonstration of the coherence of the syllabus with the learning objectives of the course:

The syllabus of this course is in line with the recommended learning objectives. The program provides a comprehensive overview of the most important topics in health research methodologies and provides practical tools for the development of solid and coherent health research protocols. For each of the topics addressed, the problems will be presented and the most appropriate methods will be discussed, as well as their applicability will be discussed and demonstrated.

Teaching methodologies (evaluation included):

The classes will be theoretical-practical, involving the fundamental themes underlying the research methodologies. The practical application will be done using targeted exercises. The discussion of articles will also be promoted throughout the classes.

The evaluation will be carried out through the presentation of a proposal for a health research protocol, designed by the students, in power point format, which will be presented individually by the students. This will consist of:

1. Title
3. Keywords (maximum of 5 keywords: these must summarize the framework and theme of the thesis)
4. Literature Review (*or* State of the Art)
5. Research Question, Hypothesis(s), General Objective and Specific Objectives

6. Methods (*or* Population, Materials and Methods)
7. Expected results
8. Resources/Budget
9. Timeline (see attached example)
10. Ethical and Legal Considerations
11. Bibliographic References

Final grade between 0 and 20 (minimum grade of 10 for approval).

Demonstration of the coherence of the teaching methodologies with the learning objectives of the UC:

The presentation of theoretical-practical concepts will be accompanied by practical exercises. Throughout the course, students will do practical exercises that will allow the immediate application of the theoretical-practical concepts transmitted in class. This approach will allow the construction and consolidation of knowledge and skills to culminate in the development of a research protocol that students will present in the evaluation. The resolution of exercises in group class will be an opportunity for discussion and mutual help. Individual work for evaluation will allow students to demonstrate the acquisition of knowledge throughout the course and its appropriate application. In the end, the student will leave the UC with solid skills to plan and design future health research projects.

Bibliography of consultation / mandatory existence:

Bowling, A. Research methods in health - Investigating health and health services. 3rd Edition, Opening University Press. 2009.

Fathalia MF. A Practical Guide for Health Researchers. World Health Organization. Regional Office for the Eastern Mediterranean. 2004.

Guest G and Namey EE. Public Health Research Methods. SAGE Publications, Inc; 1st edition. 2014