INSTITUTO DE HIGIENE E MEDICINA TROPICAL
DESDE 1902

UNIVERSIDADE NOVA DE LISBOA

QUANTITATIVE AND QUALITATIVE METHODS

CU characterization:

CU name:

Quantitative and qualitative methods

Scientific area acronym:

FB

Duration:

Annual

Working hours:

84

Contact hours:

30

ECTS:

3

Observations:

N/A

Teacher in charge and respective teaching load in the CU:

Ana Abecasis – 18 hours

Other teachers and respective teaching load in the CU:

Isabel Craveiro – 13 hours

Intended learning outcomes (knowledge, skills and competences to be developed by the students):

After this unit, students should be able to:

1. Identify the steps involved in planning and conducting a research project.
2. Formulate research questions and testable hypotheses.
3. Plan a study that will test the proposed hypotheses, using an appropriate study design, sample size and mode of data collection.
4. Appreciate the principles involved in designing and selecting samples for community surveys.
5. Draw conclusions from the results of data analyses, using appropriate tabulations of the data and basic methods of statistical analysis.

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Intended learning outcomes (knowledge, skills and competences to be developed by the students): (continuation)

6. Acknowledge the characteristics of the different research paradigms and to know the conceptual and methodological differences between quantitative and qualitative studies.
7. Understand the conceptual principles and contexts of application of the qualitative methodology.
8. Know the different types of qualitative studies.
9. Identify and apply the main techniques of data collection in qualitative studies.
10. Develop competencies for conducting qualitative research.

Syllabus:

I. Overview of the stages involved in health research
II. Planning of quantitative studies
III. Research questions and hypothesis formulation
IV. Sampling –simple random sampling, cluster sampling, calculating sample sizes and design effects.
V. Ethical issues in research
VI. Questionnaire design
VII. Logistics of data collection
VIII. Basic data analysis
IX. Distinction between quantitative and qualitative health studies.
X. Qualitative methods: Definition, basic conceptual principles and contexts of application.
XI. Theoretical guidelines in qualitative research: different types of studies. Ethics and qualitative research
XII. Design of a qualitative study: phases of a research protocol
XIII. Techniques of data collection: Interviews; focal groups; observation; document analysis
XIV. Planning and organization of the data collection. The role of the interviewer/ moderator
XV. Data processing and analysis. Content analysis. Design a qualitative research
XVI. Skills for the presentation of results

Evidence of the syllabus coherence with the CU intended learning outcomes:

Structured lectures provide the students with an up-to-date knowledge regarding quantitative and qualitative research methods in science.

Small group seminars facilitate interaction between staff and the students, particularly the last ones. This seems relevant given that student's scientific background might be quite unequal. Working in group with appropriate data, formulating research questions, hypotheses and defining methodologies adequate to the problem in hand together with the oral presentation of the results, will permit to evaluate the competence of students in terms of knowledge, critical thinking and ability to present the results of a scientific work.

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Teaching methodologies (including evaluation):

Students, working in small groups, will formulate research questions and prepare research hypotheses. Much of the course consists of practical small-group or individual work, but within a framework of lectures and discussion covering the key topics. The main exercise is basic data analysis and interpretation using the appropriate methodology and an appropriate data set. Results of the exercise form the basis of a group poster presentation assignment.

Participants are assessed by a group work poster presentation (40% of the overall grade awarded for this module) and a short-answer written exam over 90 minutes (60% of the overall grade awarded for this module).

Evidence of the teaching methodologies coherence with the CU intended learning outcomes:

The classes will comprise different moments with different methodologies. A part of the lesson is intended for theoretical, conceptual and methodological reflection on the several contents of the programmatic structure, providing freedom for students to ask questions and present hypotheses that fit the concepts presented in concrete problems. It is intended that the theoretical-practical sessions are interactive and have a practical nature, prioritizing activities of solving exercises and role-playings related to the syllabus lectured. In the process of continuing learning it is promoted the active appropriation of the theoretical concepts and the analysis of its practical application. The practical activities will be organized according to the learning objectives to be achieved. The references supporting the curricular unit were selected based on their appropriateness to the objectives and contents of the program

References for consultation / mandatory existence:

- Bardin, L. (2009). A análise de conteúdo, Edições 70, Lisboa.
- Cresswell, J. W. (2009). Research Design: Qualitative, Quantitative, and Mixed Method Approaches. 3rd edition. London: Sage Publications.
- Denzin, N. and Lincoln, Y. (2 011). The SAGE Handbook of qualitative research. Thousand Oaks, CA: Sage Publications.
- Flick, U. (2006). An introduction to Qualitative Research. London: Sage Publications.
- Holliday, A. (2002). Doing and Writting Qualitative Research. UK: Sage Publications.
- Yin, R.K. (2009). Case Study Research: Design and Methods. 4th edition. Thousand Oaks, CA: Sage Publications.
- Bowling, A. (2002). Research methods in health - Investigating health and health services. 2nd Edition, Opening University Press. 2002.
- Douglas G. Altman. Practical Statistics for Medical Research, Chapman & Hall/CRC Texts in Statistical Science.