

60853 - Applied research methodology

Syllabus Information

Academic year: 2023/24

Subject: 60853 - Applied research methodology

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

Degree: 549 - Master's in Evaluation and Physical Training for Health

ECTS: 6.0

Year: 1

Semester: First semester

Subject type: Compulsory

Module:

1. General information

The main objective of this subject is to integrate the necessary processes to carry out scientific research in health and sports sciences. To this end, the aim is to learn about, analyse and propose pre-experimental, quasi-experimental and experimental research designs; selective methodology designs (ex-post facto and survey designs) and observational methodology designs.

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/>), so that the acquisition of the learning results of the subject provides training and competence to contribute to some extent to their achievement. It specifically contributes to the achievement of targets 3.4 of objective 3 and 4.3 and 4.4 of objective 4.

2. Learning results

Each student, in order to pass this subject, must demonstrate the following results:

1. To critically analyse the scientific literature on the Evaluation and Prescription of Physical Exercise for Health.
2. To relate general research methods to the main scientific problems in the Evaluation and Prescription of Physical Exercise for Health.
3. To do primary and secondary documentary searches.
4. To review literature in scientific papers.
5. To know the structure of a research report.
6. To properly organize the steps of research projects.
7. To write scientific articles following the APA or AMA style standard.
8. To orally present scientific communications.
9. To apply inter- and intra-group, unifactorial and factorial experimental designs.
10. To apply pre-experimental and quasi-experimental designs.
11. To apply selective-correlational designs: ex-post facto and survey designs.
12. To select samples based on the types of designs.
13. To apply observational methodology in the field of health and sports sciences.
14. To use qualitative methodology in the field of health and sports sciences.

3. Syllabus

1. Methodology of scientific research.
2. Experimental methodology in the sciences of physical activity, sport and health.
3. Quasi-experimental methodology in the sciences of physical activity, sport and health.
4. Selective-correlational methodology in the sciences of physical activity, sport and health.
5. Observational designs applied to research in the sciences of physical activity, sport and health.
6. Qualitative methodology in the sciences of physical activity, sport and health.
7. Documentary sources in the sciences of physical activity, sport and health.
8. Writing of scientific texts.
9. Preparation of projects and reports in quantitative and qualitative research.

4. Academic activities

- Lectures: sessions where the professor will explain the subject's topics: 33 hours.
- **Problem solving and case studies:** In these sessions different activities and tasks will be proposed based on what has been covered in class: **25 hours**.

- **Teaching work:** different teaching assignments: **14 hours**
- **Study: 72 hours**
- **Assessment tests: 6 hours.**

5. Assessment system

The student will be able to choose between two assessment options: continuous assessment or global test. If the student does not pass the continuous evaluation or does not agree with the grade achieved, they have the right to take the global test.

Option 1: Continuous assessment:

The student must demonstrate achievement of the intended learning results through the following assessment activities:

1. Written test: Objective tests (true/false or dichotomous, multiple choice, matching items, etc.) or short or short answer restricted questions.
2. Techniques based on student attendance and participation in class, seminars and tutorials: Individual or small group work on proposed practical cases.

The subject is considered as passed when the student obtains a grade equal to or higher than 5 in the continuous assessment.

Option 2: Global test:

The student who has not obtained a grade equal to or higher than 5 in the continuous assessment system, or who has not chosen this option, will have the opportunity to take a written test consisting of multiple-choice questions, short open ended questions and/or practical application exercises. The subject is considered as passed when the student obtains a grade equal to or higher than 5.

Tests for students in other calls than the first one. For students who have not passed the continuous assessment or who have to write tests in successive calls because they have not passed the subject in the first one, the assessment criteria will be those of the global assessment.

Fraud or total or partial plagiarism in any of the assessment tests will result in not passing the subject and achieving the minimum grade, in addition to the disciplinary sanctions that the Quality Assurance Committee decides for these cases. For more detailed information on plagiarism and its consequences please consult: <https://biblioteca.unizar.es/propiedad-intelectual/propiedad-intelectual-plagio>