Universidad Zaragoza

Academic Year/course: 2022/23

60850 - Physical activity and health: scientific evidences

Syllabus Information

Academic Year: 2022/23
Subject: 60850 - Physical activity and health: scientific evidences
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

1.1. Aims of the course

The course responds to the following objectives:

- To analyze the recommendations of physical activity for health from a historical perspective.

- To associate physical exercise and health from a scientific perspective.

- To analyze and discuss the scientific evidence that supports the convenience of exercise for health and disease.

- To analyze the models of current physical activity of the population.

1.2. Context and importance of this course in the degree

The knowledge regarding the scientific evidence on the relationship between physical exercise and health is of critical importance for students of the master. This knowledge will be essential for the student, who must adopt a critical attitude towards any information related to the subject.

1.3. Recommendations to take this course

Students should have a good level of the use of different scientific databases.

If due to the pandemic produced by COVID 19, theory and practice sessions had to be canceled, they would be taught in an online mode (Google meet).

2. Learning goals

2.1. Competences

- Propose research models in the field of the promotion and prescription of physical activity for health

- Perform a critical analysis on the development and presentation of new and complex ideas in the field of the assessment and recommendation of physical exercise for health.

- Promote the mutual exchange of knowledge with other colleagues in the field of the assessment and recommendation of physical exercise for health.

- Obtain skills that facilitate learning throughout professional development independently, managing the resources present in the different fields of knowledge.

- Critically analyze scientific texts in Spanish and English.

- Discuss the design of health-oriented physical activity programs in people with hypertension, metabolic or osteoarticular problems.

- Discuss the most important elements for prescribing health-oriented physical activity programs in children, youth, adults, the elderly and / or with special needs.

- Evaluate gender differences in relation to pathologies that can be modified by physical activity.

- Identify health problems and evaluate which physical exercise can positively affect their treatment and subsequent improvement.

- Extract and adequately analyze the information from scientific texts in the framework of Physical Activity Sciences, assessing their possible link to the field of Health.

- Perform optimized bibliographic searches in the field of health-oriented physical activity, strategically selecting the most relevant information for the purpose of the research: purpose of the intervention, population groups, intervention methodology.

2.2. Learning goals

- To have knowledge of the historical evolution of physical activity recommendations.

- To understand the relationship between physical exercise and health from a scientific perspective.

- To study and discuss the scientific evidence that supports the convenience of exercise for health and disease.

- To know the current physical activity models of the population.

2.3. Importance of learning goals

In this course, students will learn the relationship between physical exercise and health based on current scientific evidence.

3. Assessment (1st and 2nd call)

3.1. Assessment tasks (description of tasks, marking system and assessment criteria)

Exam (30%): Multiple-choice and short answer questions.

Work (50%): Oral presentation of an autonomous or group work.

Techniques based on attendance and active participation (20%) of the student in class, seminars, tutorials and/or participation in the exchange performed with the University of Pau (France).

* It will be compulsory to pass each of the parts independently with at least 5 points out of 10 to pass the overall course.

4. Methodology, learning tasks, syllabus and resources

4.1. Methodological overview

The methodology followed in this course is oriented towards achievement of the learning objectives. A wide range of teaching and learning tasks are implemented, such as theory session, practice session, and workshop.

Students are expected to participate actively in the class throughout the semester.

Classroom materials will be available via Moodle. It includes a repository of the lecture notes used in class, the course syllabus, as well as other course-specific learning materials, including a discussion forum.

Exchange with the University of Pau: This activity will be voluntary and will consist of performing a work with French students. French students will come to Spain for two days, while Spanish students will go to France for two days on dates to be determined as long as funding and COVID 19 allow.

4.2. Learning tasks

The course includes the following learning tasks:

Theory session

Practice session

Workshop

4.3. Syllabus

Theory sessions:

Levels of evidence (GRADE). Types of articles/studies.

Physical activity recommendations and their evolution. Glossary of terms related to physical activity and exercise.

Risk and benefits of physical activity.

Physical activity and pregnant women.

Physical activity and cancer.

Physical activity and bone.

Physical activity and muscle.

Physical activity, obesity, diabetes and metabolic syndrome.

Physical activity and heart, lung and vascular diseases.

Practice sessions

Systematic review: Explanation of the PICO model and the inclusion and exclusion criteria.

Search in databases: Learn to export data and access scientific articles.

Group work with French students.

Bibliographic citation management software.

PRISMA checklist and completion of the descriptive table of a systematic review.

Resolution of doubts from previous practices.

Explanation of how the quality of randomized and non-randomized clinical trials is evaluated. Explanation of the structure of a systematic review.

Example of an oral presentation of the work.

4.4. Course planning and calendar

The course lasts 60 hours.

Further information concerning the timetable, classroom, office hours, assessment dates and other details regarding this course, will be provided on the first day of class and the faculty website.

4.5. Bibliography and recommended resources

http://biblos.unizar.es/br/br_citas.php?codigo=60850&year=2020