

PHYSICAL ACTIVITY AND PUBLIC HEALTH

International master course (Tempus Intensive Program, national lifelong learning program)

COURSE SIZE

15 ECTS

SPECIFIC CONDITIONS

Teaching language is English.

COURSE PERIOD

The course is structured as an Intensive Program (IP) with a condensed teaching period for 3 weeks in November 2015. Course period is 9th - 28th.

SPECIFIC CONDITIONS

The teaching language is English.

For the international students, the regular attendance of the lessons is obligatory.

COURSE BACKGROUND AND AIMS

Background

Many people may be surprised by the strength of the evidence linking physical activity to numerous health improvements. Regular physical activity greatly reduces the risk of dying from coronary heart disease, the leading cause of death in the EU. It also reduces the risk of developing diabetes, hypertension, and colon cancer; enhances mental health; fosters healthy muscles, bones and joints; and helps maintain function and preserve independence in older adults. How to help people incorporate physical activity into their lives is less clear-cut. Numerous challenges exist when promoting behavioral changes at individual and population level, such as engaging in physical activity programs and reducing sedentariness. Nevertheless, increasing physical activity is a formidable public health challenge that we must hasten to meet. With respect to the aspect of human physiology, the course looks at the normal physiological and functional changes induced by physical activity as well as pathophysiological and other constraints for exercise prescription in various populations, from lifestyle diseased people to children and elderly. The course will include substantial amount of practical sessions, with presentation of specific health-enhancing exercise interventions in real-life settings. Apart from biomedical contents of the course, health-enhancing physical activity will be also presented as a social and psychological process with the primary focus on describing and making understandable the anthropology of health-enhancing physical activity.

Objectives

The objective of this IP program is to provide master level students with research based knowledge and insight on the field of the health enhancing effect of physical activity and exercise. Biomedical and humanistic sciences are integrated to provide a comprehensive view of the complexity of the health enhancing capacity of regular physical activity for various populations.

COMPETENCES

On completion of this course the student should be able to:

Professional competences:

- Understand the complex biomedical and psychological determinants of health in various population and pathophysiological consequences of physical inactivity,
- Participate in the design and implementation of health-enhancing physical activity interventions for variety of populations (youth, elderly, and lifestyle diseased),
- Select physiological and functional appropriate evaluation tools including single test, test batteries, questionnaires, to evaluate the effect of physical activity and exercise according to specific groups and fitness-level,
- Communicate and undertake interdisciplinary initiatives on subjects, methods, and theories of special relevance for the area of physical activity and public health,
- Deliver high quality work in relation to the multidisciplinary area of physical activity and public health,
- Develop ideas for policies of physical activity and public health.

Theoretical and academic competences:

- Knowledge and understanding of the relation of physical activity to health and function across the life-span; students will be able to explain how exercise impacts health in both healthy and diseased populations,
- Design, implement, and evaluate physical activity interventions in a variety of populations and community settings; students should be able to identify benefits and risks of physical activity interventions and formulate appropriate and measurable program objectives, a knowledge of the role of physical activity for health as well as prevention and treatment of disease,
- Describe complex relation of physical activity and health outcomes in various populations,
- Describe and discuss the effect of every day physical activity and exercise programs for various populations on the different biological systems,
- Describe the relationship between physical activity and health outcomes in the main biological systems and specific population-related diseases,
- Analyze, assess and discuss the physical activity practice of various populations as well as initiatives of various policies in relation to physical activity promotion and public health,
- Develop a critical understanding of the scientific material in relation to the area of physical activity and public health.

CONTENT OF THE COURSE

Dealing with best practice issues related to the evaluation, development and implementation of health-enhancing physical activity targeting special populations (e.g. youth, elderly and lifestyle diseased people) the program focuses on:

- The academic rationale for the inclusion of fitness and health-enhancing physical activity in the public health domain.
- State-of-the-art scientific data on the physiological, epidemiological, psychological, sociological and social factors underpinning 'best practice' issues in health-enhancing physical activity design, promotion and implementation in public health domain for various population.
- Methodological, ethical and practical issues which underpin scientific investigation and intervention in the field of exercise physiology, pathophysiology and other biomedical fields as well as exercise science.
- Opportunities for students to obtain a European perspective on the general topic, and offer them tools to evaluate how policy issues differ between countries.

- An international, multi-disciplinary approach will be adopted.

WORKLOADS OF THE STUDENTS (HOURS)

- 40 Preparation for the course (reading and abstract)
- 215 Lectures (90), practical workshops (30) and Preparation (95)
- 120 Exam (Essay)

TEACHING METHODS/PEDAGOGICAL ISSUE

Lectures, practical workshops, student presentations and written exams. The teaching staff will have international scientific qualifications in core fields.

Learning activities will be based on lectures together with practical workshops.

The general focus will be placed on interactive lectures together with real-life setting is students inclusion and implementation of learned skills and theoretical knowledge.

LECTURE-BASED TOPICS

Issues are addressed from a multidisciplinary perspective, using lecturers from different disciplines. In general, all important topics considering physical activity and public health will be addressed. Introduction of public health issues will precede selected lectures in advance exercise physiology, nutrition for health and psychological constraints in physical activity inclusion in everyday lifestyle. Specific adaptations to exercise in various populations will be addressed as well as both general and specific exercise testing and prescription concepts and up to date recommendations. Also, key information about health-oriented physical Education, epidemiology of physical activity and adapted physical activity will be addressed.

PRACTICAL WORKSHOPS

Students will be introduced with real-life physical activity implementation for different populations (youth, elderly and lifestyle diseased people) and given the chance to discuss and critically analyze observed interventions in the context of previously gained theoretical knowledge. Also, they will be introduced to various testing procedures in lab and field settings as well as its interpretation and testing-based exercise prescription for various populations.

MANDATORY AND/OR RECOMMENDED LITERATURE

PDF files of the literature will be available via e-learn platform.

MODULE RESPONSIBLE

Assistant professor Marko Stojanovic: marko.ns.stojanovic@gmail.com

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FACULTY

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