

**SPSC- 511 Exercise and Chronic Diseases**  
**University of Nicosia, Cyprus**

<b>Course Code</b> SPSC-511	<b>Course Title</b> Exercise and Chronic Diseases	<b>ECTS Credits</b> 10
<b>Department</b> Life & Health Sciences	<b>Semester</b> Fall or Spring	<b>Prerequisites</b> None
<b>Type of Course</b> Elective	<b>Field</b> Sports Science	<b>Language of Instruction</b> Greek
<b>Level of Course</b> 2 <sup>nd</sup> Cycle	<b>Year of Study</b> 1 <sup>st</sup> or 2 <sup>nd</sup>	<b>Lecturer(s)</b> Dr Christoforos Giannaki
<b>Mode of Delivery</b> Face-to-face with support of electronic resources	<b>Work Placement</b> N/A	<b>Co-requisites</b> None

**Objectives of the Course:**

The main objectives of the course are related to the role of exercise and physical activity in patients with chronic diseases. The course covers issues both for the prevention and the non-pharmacological management of chronic diseases through exercise and physical activity. Emphasis will be given also to the knowledge of the basics of the physiological mechanisms involved in the body's response to certain clinical diseases and pathological conditions and to the relationship between those mechanisms and exercise. This course will provide the students with the required knowledge in order to be able to design and successfully deliver with safety the appropriate exercise programs in patients with chronic diseases. Discussion will focus to the non-pharmacological management of chronic diseases such as Cardiovascular Disease, Diabetes, Cancer, Chronic Kidney Disease, Metabolic syndrome, Osteoporosis and Hypertension. In addition, the students will be instructed to the basic knowledge regarding the role of exercise in other diseases such as Parkinson' disease, Pulmonary diseases etc. The course includes both theoretical and practical applications. The students will have the opportunity to learn how to assess physical performance of patients with chronic diseases using both field and laboratory-based tests.

**Learning Outcomes:**

After completion of the course students are expected to be able to:

1. Recognize the important role of exercise in the prevention and treatment of chronic diseases.
2. Recognize how exercise can reduce the risk of certain diseases and be aware of the major risk factors for those diseases.
3. Understand the challenges associated with exercise in clinical populations.
4. Be aware of how exercise could improve the quality of life of patients with chronic disease.
5. Design safe, specific and appropriate exercise rehabilitation programs for the most common chronic diseases.
6. Assess the physical performance and functional capacity of diseased populations using lab and field testing methodology.

7. Assess aspects related to quality of life of patients with chronic disease.
8. Develop the ability to assess basic research projects in the clinical exercise physiology area in order to implement acquired knowledge.
9. Develop the ability to undertake postgraduate research in the field of exercise in chronic diseases.

### Course Contents:

1. Introduction to exercise and chronic disease.
2. Exercise in patients with Cardiovascular diseases.
3. Exercise and Cancer.
4. Exercise in patients with Chronic Kidney Disease.
5. Exercise in patients with Pulmonary Diseases.
6. Exercise and Parkinson's Disease.
7. Exercise and Metabolic syndrome.
8. Exercise and Osteoporosis.
9. Exercise and quality of life in clinical populations.
10. Design specific exercise programs in patients with chronic diseases.
11. Exercise physiology, functional capacity and quality of life assessment in patients with chronic diseases.
12. Current research in clinical exercise physiology.

### Learning Activities and Teaching Methods

Lectures, Discussions, Presentations from students, practical-lab applications

### Assessment Methods

Final examination, Project, Presentation

### Required Textbooks/Reading:

Authors	Title	Publisher	Year	ISBN
Dustine J., Moore G. Επιμέλεια: Μπαλτόπουλος Π.	ACMS's Άσκηση "Χρόνιες Παθήσεις & Αναπηρίες"	Ιατρικές Εκδόσεις Π.Χ. Πασχαλίδης	2005	9789603993292

### Recommended Textbooks/Reading:

Authors	Title	Publisher	Year	ISBN
Jonathan Ehrman, Paul Gordon, Paul Visich, Steven Keteyian	Clinical Exercise Physiology- 2 <sup>nd</sup> Edition	Human Kinetics	2009	SBN-13: 9780736065658