DEMOCRITUS UNIVERSITY OF THRACE
DEPARTMENT OF PHYSICAL EDUCATION & SPORT SCIENCE

UNDERGRADUATE PROGRAM OF STUDY

COURSE TITLE:

Exercise & chronic disease

COURSE CODE:	**E.C.T.S. CREDITS**
N087	2

RESPONSIBLE PROFESSOR:

NAME	Savvas Tokmakidis	
POSITION	Professor	
SECTOR	Sports Training Theory & Application	
OFFICE	B2 - 9	
TEL. / E-MAIL	25310 - 39649 & 39724	stokmaki@phyed.duth.gr
CO-INSTRUCTORS	Konstatinos Volaklis, T.L.S.S.	

SEMESTER:

1st	[ ]	2nd	[ ]	3rd	[ ]	4th	[ ]
5th	[ ]	6th	[X]	7th	[ ]	8th	[X]

COURSE TYPE:

Obligatory	[ ]
Direction	[ ]
Specialization	[ ]
Prerequisite for specialization	[ ]
Elective (*open*)	[X]

HOURS *(per week)***:** 2

DIRECTION *(only for 3rd & 4th year courses):*

SPECIALIZATION *(only for 3rd & 4th year courses):*

LANGUAGE OF TEACHING: Greek [X] English [ ]

AIM OF THE COURSE *(content and acquired skills):*

The aim of this course is to provide to students the theoretical knowledge on the pathophysiology of chronic disease (i.e., coronary heart disease, hypertension, dyslipidemia, obesity, cancer, etc.) and understand the potential of exercise training programs as a means of rehabilitation. Furthermore, specific laboratory protocols and types of exercise are performed by focusing on safety and efficacy.

COURSE CONTENTS *(outline – titles of lectures):*

1. Introduction to chronic diseases.
2. Exercise and hypertension.
3. Exercise and adaptations in lipid levels.
4. Exercise for obese people (part A).
5. Exercise for obese people (part B).
6. Laboratory I.
7. Exercise and cancer.
8. Exercise and special patient groups.
9. Metabolic syndrome & exercise.
10. Exercise and the elderly.
11. Laboratory II.
12. Exercise and thyroid diseases.
13. Exercise and osteoporosis.

TEACHING METHOD(S) *(lectures – labs – practice etc.):*

1. Lectures.
2. Laboratories.

ASSESSMENT METHOD(S):

1. Written assignments (30%)
2. Final exams (70%)

LEARNING OUTCOMES:

Upon the completion of this course the students will be able to:

1. Know and understand the acute and long-term physiological adaptations caused by exercise in patients with chronic diseases (i.e., heart disease, diabetes, obesity, etc.).
2. Design exercise protocols applicable to people with chronic diseases.
3. Determine the exercise intensity depending on the type of the disease.
4. Personalize and supervise special exercise programs in individual patients.

LEARNING OUTCOMES – CONTINUED:

Learning Outcomes	***Educational Activities***	***Assessment***	***Students Work Load (hours)***
Knowledge and understanding of acute and long-term physiological adaptations caused by exercise in patients with chronic diseases.	Lectures, individual / group home work.	Mid-term exams, final exams.	20

Ability to design exercise protocols applicable to people with chronic diseases.	Lectures, laboratory exercises, home study.	Mid-term exams, practical evaluation.	20
Determination of exercise intensity depending on the type of the disease.	Lectures, laboratory exercises.	Written assignments.	10
Personalize and supervise special exercise programs in individual patients.	Lectures, practice.	Practical evaluation.	10
		TOTAL	**60**

OBLIGATORY & SUGGESTED BIBLIOGRAPHY:

1. Tokmakidis, S. (2003). Exercise and chronic disease. Athens: Paschalidis.
2. Tokmakidis, S. & Volaklis, K. (2008). Exercise as a therapeutic tool in patients with coronary artery disease. Athens: Paschalidis.