

DEMOCRITUS UNIVERSITY OF THRACE
DEPARTMENT OF PHYSICAL EDUCATION & SPORT SCIENCE

UNDERGRADUATE PROGRAM OF STUDY

COURSE TITLE:

Exercise Physiology

COURSE CODE:

N136

ECTS CREDITS

4

RESPONSIBLE PROFESSOR:

NAME	Savvas Tokmakidis		
POSITION	Professor		
SECTOR	Sports Training Theory and Application		
OFFICE	B 2-9		
TEL. / E-MAIL	25310-39649 & 39724	stokmaki@phyed.duth.gr	
CO-INSTRUCTORS	Ilias Smilios, Lecturer		

SEMESTER:

1ST 2ND 3RD 4TH
5TH 6TH 7TH 8TH

COURSE TYPE:

OBLIGATORY
DIRECTION
SPECIALIZATION
PREREQUIZITE FOR SPECIALIZATION
ELECTIVE (*OPEN*)

HOURS (per week):

2

DIRECTION

(only for 3rd & 4th year courses)

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

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LANGUAGE OF TEACHING:

GREEK

ENGLISH

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

The aim of the 'Exercise Physiology' course is to provide basic knowledge on the function of human body during exercise and study the physiological factors that determine physical performance and the biological adaptations observed in the human body during regular exercise.

COURSE CONTENTS (*outline – titles of lectures*)

1. Introduction to exercise physiology
2. Energy systems and sources
3. Exercise metabolism
4. Respiratory function during exercise
5. Cardiovascular function during exercise
6. Neural control of movement
7. Muscular function during exercise
8. Hormonal responses to exercise
9. Thermoregulation and exercise
10. Body composition and body mass control
11. Exercise in youth
12. Basic physiological principals of training
13. Exercise and health

TEACHING METHOD (*lectures – labs – practice etc*)

- Lectures

ASSESSMENT METHOD(-S)

- Mid-term exams
- Final exam

LEARNING

Upon the completion of this course the student will learn:

- the function of basic systems of the human body during exercise.
- the basic physiological factors that determine physical performance.
- the biological adaptations observed in the human body during regular exercise.

LEARNING - CONTINUED

<i>Learning Outcomes</i>	<i>Educational Activities</i>	<i>Assessment</i>	<i>Students Work Load (hours)</i>
Knowledge of the function of basic systems of the human body during exercise	Lectures	Mid-term and final exams	40
Understanding of the basic physiological factors that determine physical performance.	Lectures	Mid-term and final exams	40
Knowledge of the biological adaptations observed in the human body during regular exercise	Lectures	Mid-term and final exams	40
		TOTAL	120

OBLIGATORY & SUGGESTED BIBLIOGRAPHY:

1. Klisouras V. (2004). *Ergophysiology*. P.Ch. Pasxalidis Editions, Athens.
2. Willmore J. and D.L. Costill (2005). *Physiology of sport and exercise*. P.Ch. Pasxalidis Editions, Athens.
3. Powers S. & Howley E. (2007). *Exercise Physiology: Theory and Application to Fitness and Performance*. McGraw Hill, UK.