

## COURSE OUTLINE

### (1) GENERAL

<b>SCHOOL</b>	PHYSICAL EDUCATION & SPORT SCIENCE		
<b>DEPARTMENT</b>	PHYSICAL EDUCATION & SPORT SCIENCE		
<b>LEVEL OF STUDIES</b>	UNDERGRADUATE		
<b>COURSE CODE</b>	AB201YΠ	<b>SEMESTER</b>	Winter
<b>COURSE TITLE</b>	ERGOPHYSIOLOGY		
<b>TEACHING ACTIVITIES</b>		<b>TEACHING HOURS PER WEEK</b>	<b>ECTS</b>
Lectures		2	6
Practical application		2	
<b>COURSE TYPE</b>	Compulsory		
<b>PREREQUISITE COURSES:</b>	-		
<b>TEACHING AND EXAMS LANGUAGE:</b>	English/Greek		
<b>OFFERED TO ERASMUS STUDENTS</b>	Yes		
<b>WEBPAGE (URL)</b>	<a href="https://eclass.uoa.gr/courses/PHED125/">https://eclass.uoa.gr/courses/PHED125/</a>		

### (2) LEARNING OUTCOMES

<b>Learning outcomes</b>
<ul style="list-style-type: none"> <li>- Ergophysiology is the science that investigates how the body functions and adapts during muscular effort. The biological adaptations to exercise are classified as immediate and chronic. The body's functions are examined by anatomical system and in combination with all systems together. The improvement of fitness, health, and performance through exercise results from these biological adaptations.</li> <li>- The purpose of this course is to understand the effects of different training and exercise stimuli on the adaptations of the human body.</li> </ul>
<b>General skills</b>
<p>Upon successful completion of the course, the student will understand:</p> <ul style="list-style-type: none"> <li>- The energy systems and energy substrates</li> <li>- The sources of muscular energy, muscle glycogen, glucose, and muscle fatigue</li> <li>- Energy economy and the energy cost of muscular activities</li> <li>- The concept of aerobic capacity and the anaerobic threshold as an indicator of aerobic capacity</li> <li>- The concept of anaerobic capacity and power</li> <li>- The metabolic adaptations resulting from aerobic and anaerobic training</li> <li>- Muscle action and muscle performance</li> <li>- Neuromuscular adaptations to resistance training</li> <li>- Cardiovascular and respiratory responses during exercise</li> <li>- Cardiorespiratory adaptations following aerobic training</li> <li>- The body's thermoregulation during exercise</li> <li>- Athletic performance</li> </ul>