

<b>ID</b>	2581
<b>Curricular Unit</b>	Physiology of Human Movement
<b>Regent</b>	Paulo Armada da Silva
<b>Learning Outcomes</b>	<p>To study human motor activity in a Bioenergetic perspective, viewing human physical and motor activity as an increase in body energy expenditure sustained by the coordinated response of the respiratory, cardiovascular and locomotor systems.</p> <p>To understand the health benefits of regular physical activity, particularly in populations with special needs.</p> <p>To assess functional capacity and exercise performance.</p>
<b>Syllabus</b>	<p>The basic concepts of physical activity, exercise and physical ability</p> <p>Bioenergetics and the assessment of energy expenditure</p> <p>General physiological responses to physical activity</p> <ol style="list-style-type: none"> <li>1. Respiratory responses</li> <li>2. Cardiovascular responses</li> <li>3 Metabolic responses</li> </ol> <p>Health benefits of physical activity</p> <p>The effect of aging and of physical inactivity on physical ability and functional capacity</p> <p>Special populations, Health and disease.</p> <p>Functional assessment. Ergo-spirometry.</p>
<b>Evaluation</b>	<p>Continuous evaluation</p> <p>Individual written test</p> <p>Group assignments: 1) elaborate a one-page resume of a scientific paper; 2) write a report and present in the class the results of the exercise tests performed during practical lessons.</p> <p>Final exam (for those failing in continuous evaluation)</p> <p>Written exam followed by an oral exam for those students that attained a minimal score of 10 points in the written exam. Final classification is given by the result of the oral exam.</p>
<b>Bibliography</b>	<p>Main bibliography:</p> <p>McArdle, W. D., Katch, F. I., Katch, V.I. (2001). Exercise Physiology - Energy, Nutrition, and Human performance (5<sup>a</sup> Ed.). Lippincott Williams &amp; Wilkins, Philadelphia.</p> <p>American College of Sports Medicine. (2000) Guidelines for Exercise Testing and Prescription. 6<sup>a</sup> Ed.. Baltimore, Williams &amp; Williams.</p> <p>Written material for support of laboratory and practical lessons.</p> <p>Other bibliography:</p> <p>Wilmore, J. H. &amp; Costill, D. L. (1999). Physiology of Sport and Exercise (Human Kinetics Publishers, Champaign, Ill.</p>