

<b>ID</b>	3771
<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: 1. Respiratory responses; 2. Cardiovascular responses; 3. Metabolic responses.</p> <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.</p> <p>Ergo-spirometry.</p>
<b>Evaluation</b>	<p>Continuous evaluation:</p> <p>Individual written test</p> <p>Group assignments:</p> <p>1) elaborate a one-page resume of a scientific paper;</p> <p>2) write a report and present in 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 (5th Ed.). Philadelphia: Lippincott Williams &amp; Wilkins.</p> <p>American College of Sports Medicine (2000). Guidelines for Exercise Testing and Prescription (6th 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. Champaign, Ill: Human Kinetics Publishers.</p>