

<b>ID</b>	426
<b>Curricular Unit</b>	Growth Maturation and Sports Performance
<b>Regent</b>	Maria Isabel Caldas Januário Fragoso
<b>Learning Outcomes</b>	Analyses of morphological (dimensions, proportions and body composition) and maturational adaptations which supports the transformation mechanisms of motor response during growth process.
<b>Syllabus</b>	<p>1 - Growth and efficiency: Growth curves, energy, balance, stability and homeostasis. Stages of growth and physical activity. Peak velocity for different morphological structures and decision making.</p> <p>2 - Biological maturation and sports performance: Maturity or physiological age of active and sedentary subjects. Maturation, nutrition and performance. Methods for assessing maturity. Anaerobic, aerobic performance and maturation. Concept of readiness and motor sports. Trainability and maturation. Sensitive periods;</p> <p>3 - Body composition, somatotype and sports performance: Different constituents of body mass. Athletic specialty and physical robustness. Effects of physical activity on body composition. Growth and plasticity of the somatotype;</p> <p>4 - Modelling of success: talent as evolutionary strategy. Attributes. Gift or opportunity to practice. General and talent . Training of coordinative and conditional capabilities. Long-term preparation. Early specialization. Selection vs detection.</p>
<b>Evaluation</b>	<p>We have 4 to 12 hours per week that serve to transmit theoretical contents and to implement practical information sheets, handling anthropometric material and contact with laboratory techniques and methods. As a function of motivation and means of assimilation it is used: (1) multimedia products, (2) laboratory equipment to experiment different measurements, (3) Course website <a href="http://www.fmh.utl.pt/sga/">http://www.fmh.utl.pt/sga/</a>, where you can access all the information of (a) Teachers, (b) Evaluation, (c) Program, (d) Bibliography, (e) Other texts, etc. The students can choose, dependent on their characteristics an number, between two models of evaluation: (1) continuous assessment or (2) final evaluation. Continuous assessment benefits students who are in an attendance system. In this case, the student must perform a review, presenting a case study, and present a dossier. Students may choose to take a final written exam (1st and 2nd time).</p>

**Bibliography**

Vieira, F. & Fragoso, I. (2006). *Morfologia e Crescimento*. Cruz Quebrada: FMH - Serviço de Edições.

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Bompa (2000). *Total Training for Young Champions*. Champaign, Ill, Human Kinetics

Hebestreith, H., Bar-Or, O. (2008). *The Young Athlete*. Blackwell Publishing