

ID	2896
Curricular Unit	Exercise Physiology
Regent	Fernando Manuel da Cruz Duarte Pereira
Learning Outcomes	Study of the acute and chronic adaptation processes and systems to bouts of exercise. Human performance, energy and nutrition. Evaluation of functional capacities related to exercise.
Syllabus	Introduction. Fundamental Concepts. Bioenergetics. Energy for Physical Activity. Energy Value of Food. Fatigue. Measurement of Human Energy Expenditure. Methods and research in the field. Pulmonary Ventilation adaptations. Gas Exchange and Transport. Blood. Cardiovascular system adaptation. Neural muscular adaptations. Endocrine system adaptation. Thermoregulation. Exercise and thermal stress. Special populations. Health and disease. Functional assessment. Ergo-spirometry.
Evaluation	This curricular unit is structured in two separated but integrated courses: Theoretical and practical. Each course has detailed information in the program, describing the major aims, general objectives, behavioural skills, assessment and references. The practical course is organized in five “laboratories”. Each laboratory aims at a set of evaluation procedures related to the main physiological functions. The students work in groups and teams. As such they perform all the necessary tasks to physiological evaluation measurements, from organization, data collection and interpretation and formal reporting according to technical and scientifically standards. This lab report, done in team project, has the main weight in the practical course evaluation. All the ancillary material are free and can be downloaded from this subject's website.
Bibliography	McArdle, W. D., Katch, F. I., Katch, V. I. (2001). Exercise Physiology - Energy, Nutrition, and Human performance (5th Ed.). Lippincott Williams & Wilkins, Philadelphia. This Curricular Unit has a personalized support site available for the registered students (password required) in the LMS (Learning Management System - SGA E-learning, FMH) with multiple documents, exercises, references, links and activities suggestions.