ID	2343
Curricular Unit	Periodization of Sports Training
Regent	Francisco José Bessone Ferreira Alves
Learning Outcomes	1. To identify and analyze the principles underlying the periodization of training. 2. To acqnowledge the various models of periodization of the macrocycle, as well as the processes of organization and sequencing of selected loads for the development of physical qualities. 3. To critically appraise the scientific justification of the procedures found in the field, related to the optimization processes of training stimulus, dealing with the fatigue curves and overcompensation, and promoting performance peaking or, alternatively, extended state of high level sports performance . 4. To understand the consequences of long lasting periods of insufficient recovery during the training season and its relation to the processes of overreaching and overtraining 5. To recognize the indicators of fatigue and work load impact assessment with greater relevance in the field practice. 6. To know the procedures for monitoring and modeling the training load – performance relationship dynamics.
Syllabus	1. Strategies for handling the sports performance capacity depending on the structure of the competitive calendar and the performance structure model of the sport. Modelling of the load-performance binary: supercompensation and bifactorial model. 2. Periodization models of optimization of sports performance structure (peaking) 3. Periodization models of the extended state of high level performance structure 4. Procedures for training periodization of physical qualities (strength and muscle power, aerobic and anaerobic endurance, speed and flexibility) and its integration into each variant of performance structuring. 4. Overtraining, overreaching and periodization. Psychological and performance indicators in training and competition. Markers of fatigue related to the regulation of the neuroendocrine and immune systems. 5. Quantitative modeling of the training load, fatigue and performance: the training impulse; models for endurance sports; models for sports games.

Evaluation	Lecture method and discussion topics are used, supported by the commented reading of recent scientific articles. It is proposed bibliography for each topic. The presence of at least 75% of the taught classes allows access to the continuous evaluation process, which is fulfilled through the completion of a written work whose themes and individual development are agreed in advance with the teacher, leading to the provision of an adequate bibliography. The conditions for carrying out the work are listed in a guidance document and the proposed theme is discussed in a session reserved for this purpose. The work is presented and discussed in class, with two fellow reviewers being previous and randomly for it. The final evaluation of the student derives from consideration of the value of the text (70%), presentation (10%) and ability to reason and mastery of the subject (20%). The final exam consists of written test on the entire contents taught.
Bibliography	Alves F (2006). A síndrome do sobretreino. In Fadiga e desempenho: uma perspectiva multidisciplinar. (pp. 55-68). Lisboa: FMH Edições. Borresen J, Lambert MI (2009). The quantification of training load, the training response and the effect on performance. Sports Med, 39(9):779-95. Gamble PS (2006). Periodization of training for team sports athletes. National Strength and Conditioning Association, 28(5): 56–66. Issurin VB (2010). New horizons for the methodology and physiology of training periodization. Sports Med, 40(3):189-206. Kellmann M (Ed). (2002). Enhancing recovery: Preventing underperformance in athletes. Champaign, IL: Human Kinetics. Meeusen R, et al (2006). Prevention, diagnosis and treatment of the Overtraining Syndrome. Eur J Sport Science, 6(1): 1-14. Siff MC, Verkhoshansky Y (2000). Superentrenamiento. Barcelona: Ed. Paidotribo. Smith DJ (2003). A framework for understanding the training process leading to elite performance. Sports Med, 33(15): 1103-26.