ID	3094
Curricular Unit	Research Methods on Sport Sciences II
Regent	Pedro Vítor Mil-Homens Ferreira Santos
Learning Outcomes	Practical experience in research techniques related with Neuromuscular Function and Notational Analysis Basic procedures and interpretation of the results
Syllabus	1. Neuromuscular Function Isometric force time curve measurements Dynamic measurement of muscle strength Isokinetic measurements Evaluation of force production in Stretch-Shortening Cycle movements Representation and interpretation of force-time, force-velocity and force-power curves 2. Notational Analysis Basics on Notational Analysis Observation systems Data reliability and validity Software: Longomatch, Match VisionGlobally and Positioning Sport – SPI PRO tracking system (GPS)
Evaluation	The teaching methodology in this unit is strongly "hands-on" (on the lab). For each topic of the program, the students have to collect and process data, for posterior analysis. The evaluation consists in a written report based on the laboratory work.
Bibliography	MacDougall, J. D., Wenger, H. A., Green, H. J. (Eds.). Physiological Testing of the High-Performance Athlete (2ª edição). Champaign. Il: Human Kinetics, 1991. Hughes, M., Franks, I. (2008). The Essentials of Performance Analysis: An Introduction. London: Routledge & Francis Group. Procedures Manual for the topic Neuromuscular Evaluation