ID	2011
Curricular Unit	Instrumentation and Applied Measurement in Physical Therapy
Regent	Pedro Luís Camecelha de Pezarat Correia
Learning Outcomes	To introduce the use of computer technology in physiotherapy. To provide the student with the theoretical basis and practical experience associated with techniques used in physiotherapy research. To discuss the fundamentals of instrumentation of biomechanical and physiological measures, applied in a clinical context. To gain the necessary knowledge and skills for data acquisition, processing and interpretation of electrophysiological, kinematic and kinetic data.
Syllabus	Computer, bits, bytes, RAM Harddisk, Monitor, Printer CPU, Intel, MacIntosh, Unix, DOS, MacOS User programs, Multimedia Networking, e-mail, Internet Nyquist theory Data processing Instrumentation technology AD Conversion Triggering Synchronization Electromyography Kinematic analysis Dynamics Force platform Dynamometry
Evaluation	Written exam
Bibliography	Steven W. Smith (1999), The Scientist and Engineer\\'s Guide to Digital Signal Processing (Second Edition)