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| **ID** | 680 |
| **Curricular Unit** | Psychophysiology |
| **Regent** | Filipe Melo |
| **Learning Outcomes** | This subject aims at studying the control mechanisms based on the perspective offered by of neurosciences. It views at the understanding the relationships between the nervous/endocrinous system and behaviours. It puts into perspective an integrated study that goes from the molecular, biochemical, and cellular dimension to the most elaborated expressions of cerebral functioning, such as shape, colour and movement recognition; planning and controlling of adapted actions; problem solving; paradigmatic reactions of the learning phenomena or linguistic communication. In this context, Human performance will be understood not only as an interface element between the body and the environment but also as an agent of adaptation and progress. |
| **Syllabus** | Theory<br>Neurosciences and human movement sciences<br>Anthropogenesis of the neurobiological control mechanisms<br>Neural systems origins and human behaviour emergence<br>Structural and functional basis of neuroscience<br>Genetics of the neuron and of mental capabilities<br>Neurocitology and neurotransmitters<br>Immunological aspects of the nervous system maturation<br>Fundamentals of the nervous system development<br>Motor system organisation: tonus, posture, and movement<br>Tonic function in postural organization and in movement planning<br>Postural activity and motor system<br>Neurobiological control of human performance<br>Sensorial determinants of motor control<br>Cerebral specialization<br>Motor control and the programming process<br>Psychophysiological aspects of learning<br>Practical Course<br>Muscle tone function and postural and motor implications<br>Methods and techniques for tonic improvement<br>Posturology<br>Attention, arousal and conscience<br>Emotion and motivation<br>Memory<br>Language<br>Brain and behaviour |
| **Evaluation** | Continuous assessment:2 written tests + theoretical- practical paper.<br>Final assessment:Written exam + oral exam. |

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| **Bibliography** | Main bibliography:<br>Caldas, A. (2000). A Herança de Franz Joseph Gaal – O Cérebro ao Serviço do Comportamento. Ed. Mc Graw-Hill. Lisboa<br>Pansky, B., Allen, D., Budd, G. (1988). Review of Neuroscience. 2ª Ed. N. York: Ed Macmillan Publishing Co.<br>Purves, D. E Col. (2003). Invitacion a la Neurociência. Ed. Médica Panamericana S. A.<br>Other bibliography:<br>Changeux, J. P. (1985). O Homem Neural. Pub. D. Quixote. Lisboa<br>Habib, M. (1998). Bases Neurológicas dos Comportamentos. Massion Ed. Paris<br>Madeira, F. (1990). Comportamento Postural e Prestação Desportiva de Alto Rendimento. CDI.-FMH.<br>Paillard, J. (1986). Itinéraire pour une Psychophysiologie de l'Action. Neurociences et Activités Physiques et Sportives. Ed. Actio. Marseille. |