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## Calendário 22/23

Mestrado em Neurociências 2022/2023

a cor estão assinaladas as UC's que poderão ter uma afluência até 30 alunos, sobretudo nas Teóricas.

Nome Módulos (Eng/PT) Nome da UC	Carga Horária	horas de contacto	ECTS	Coordenador do Módulo	Resumo dos Conteúdos Programáticos	Tipologia	Dias	Horário			Sala
Get Together Session							Tue, 20/Sep/22	15:00	-	17:00	Aula Magna
Opening Invited Lecture							Thu, 22/Sep/22	09:00	-	10:00	Aud. Almeida Lima (Sala Neurologia), piso 7, HSM
Neuroanatomy and Neuroimaging / Neuroanatomia e Neuroimagem UC: Neuroanatomia e Neuroimagiologia	112	18T; 10TP	2	Lia Lucas Neto	Introduction to Neuroanatomy; Spinal Cord; Brainstem and Cerebellum; Cerebrum; Blood Supply of the Brain and Spinal Cord; Ascending and Descending Tracts; Cranial Nerves; Spinal nerves and nerve plexuses; Autonomic Nervous System; Special Senses - Visual, olfactory, gustatory, auditory and vestibular systems; Practical demonstration class – Dissection of the Human Brain; Imaging of the CN.	Teórica	Tue, 20/Sep/22	17:00	-	19:00	Anf. 1.17, ERS
						Seminário	Wed, 21/Sep/22	17:00	-	19:00	Aud. 57
						Teórica	Thu, 22/Sep/22	17:00	-	19:00	Aud. 52
						Teórica	Tue, 27/Sep/22	17:00	-	19:00	Aud. 52
						Seminário	Wed, 28/Sep/22	17:00	-	19:00	Aud. 52
						Teórica	Thu, 29/Sep/22	17:00	-	19:00	Aud. 58
						Teórica	Tue, 04/Oct/22	17:00	-	19:00	Aud. 52
Cellular and Molecular Neurobiology / Neurobiologia Celular e Molecular UC: Neurobiologia Celular e Molecular	224	22T; 24TP; 10S	4	Ana M. Sebastião	Basics of neuronal excitability: electrochemical gradients and equilibrium potential; membrane potential, synaptic potential and action potential. Basics of neuronal communication: inhibitory vs excitatory transmission. Ion channels, ionotropic receptors vs metabotropic receptors. Transducing pathways operated by metabotropic receptors. Glutamatergic and GABAergic transmission – receptors and inactivation mechanisms. Plasticity of glutamatergic and GABAergic synaptic transmission. Cholinergic, noradrenergic and dopaminergic transmission; receptors and inactivation mechanisms; main circuits operated by them. Glial Cells and their ability to control synaptic activity. Concept of neuromodulation and main neuromodulators; concept of co-transmission. Blood-brain barrier: molecular anatomy and interplay within the neurovascular unit. Blood Brain barrier: Models and challenges to develop new therapeutic tools to act in the brain. Imaging and quantifying molecules by immunofluorescence and Western. Blot – Applications to neuroscience. Drug-receptor interactions and its relevance for neuroscience research. Evaluation of synaptic activity through electrophysiological recording Techniques. Glutamate receptor traffic, synaptic plasticity and cognitive disorders. New approaches to study the aged synapses.	Teórica	Tue, 11/Oct/22	17:15	-	19:15	Aud. 52
						Seminário	Wed, 12/Oct/22	09:15	-	18:30	Aula Magna
						Teórica	Thu, 13/Oct/22	17:15	-	19:15	Aud. 52
						Teórica	Tue, 18/Oct/22	17:15	-	19:15	Anf. 1.10, ERS
						Seminário	Wed, 19/Oct/22	15:30	-	16:45	Aud. 57
						Teórica	Thu, 20/Oct/22	17:15	-	19:15	Anf. 1.10, ERS
						Teórica	Tue, 25/Oct/22	17:15	-	19:15	Anf. Prof. Marck Athias
						Seminário	Wed, 26/Oct/22	17:00	-	18:00	Aud. 52
						Teórica	Thu, 27/Oct/22	17:15	-	19:15	Anf. 1.10, ERS
						Seminário	Wed, 02/Nov/22	17:00	-	18:30	Aud. 52
Master and PhD of Neurosciences -----Neuronal Degeneration and Regeneration / Degeneração e Regeneração Neuronal UC: Degeneração e Regeneração Neuronal	224	22T; 24TP; 10S	4	Ana M. Sebastião	Neurotrophic factors: key molecules for neuronal survival and plasticity. Cell death in healthy and diseased brain. The role of glial cells in neuroinflammation. Neuronal regeneration. Neural Stem cells and its neuroregenerative potential. Neuroinflammation and microglia: From neuropathological changes to therapeutic implications. Synaptic dysfunction in Rett Syndrome. Infection and transfection approaches at the service of neurosciences. Genetic approaches to fight neurodegenerative diseases. Protein aggregation in Alzheimer's disease. Multiple Sclerosis: new targets for therapeutic intervention. Mitochondrial dysfunction in neurodegenerative diseases. Modulation of neuronal maturation and differentiation by adenosine. Cannabinoid actions upon postnatal and adult neurogenesis. Driving Cell Death Machinery towards Neural Differentiation. Microtubule nucleation during brain development: from mitosis to neuronal morphology augmin takes the lead. Purinergic signaling and brain development. The ubiquitin/proteasome system and control of neuronal death.	Teórica	Tue, 08/Nov/22	17:15	-	19:15	Sala 6-IFA + Sala 7-IFA
							Wed, 09/Nov/22	09:15	-	13:00	Sala 51
						Seminário		14:00	-	18:45	Sala 50
						Teórica	Thu, 10/Nov/22	17:15	-	19:15	Sala 6-IFA + Sala 7-IFA
						Teórica	Tue, 15/Nov/22	17:15	-	19:15	Sala 6-IFA + Sala 8-IFA
						Seminário	Wed, 16/Nov/22	17:15	-	19:15	Aud. 52
						Teórica	Thu, 17/Nov/22	17:15	-	19:15	Sala 6-IFA + Sala 7-IFA
						Teórica	Tue, 22/Nov/22	17:15	-	19:15	Sala 6-IFA + Sala 7-IFA
						Seminário	Wed, 23/Nov/22	09:15	-	18:30	Sala 51 -
						Teórica	Thu, 24/Nov/22	17:15	-	19:15	Sala 6-IFA + Sala 7-IFA
Avaliação	Mon, 28/Nov/22	14:30	-	16:30	Sala 6-IFA + Sala 52						



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Master and PhD in Cognitive Science ----- Technologies for Integrative Analysis of the Nervous System	224	22T; 24TP; 10S	4	Ana M. Sebastião	Nuclear Medicine Magnetic Resonance Role of imaging in neurologic diagnosis Brain Connectivity Non-invasive magnetic stimulation BCIs and physiologic computation	Teórica	Tue, 08/Nov/22	17:15	-	19:15	Sala 6-IFA + Sala 7-IFA
						Teórica	Thu, 10/Nov/22	17:15	-	19:15	Sala 6-IFA + Sala 7-IFA
						Teórica	Tue, 15/Nov/22	17:15	-	19:15	Sala 6-IFA + Sala 8-IFA
						Teórica	Thu, 17/Nov/22	17:15	-	19:15	Sala 6-IFA + Sala 7-IFA
						Teórica	Tue, 22/Nov/22	17:15	-	19:15	Sala 6-IFA + Sala 7-IFA
						Teórica	Thu, 24/Nov/22	17:15	-	19:15	Sala 6-IFA + Sala 7-IFA
						Avaliação	Mon, 28/Nov/22	14:30	-	16:30	Sala 6-IFA + Sala 52



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Neuronal Circuits / Circuitos Neurais UC: Neurofisiologia de Sistema	336	34T; 34TP; 16S	4	Ana M. Sebastião	Mechanisms of drug dependence. Reward and Aversion in the brain: from cells to circuits to behaviour. Neuronal correlates of psychiatric diseases. Brain Maps for Decision-making. Neuroimaging: an overview. Optogenetic manipulation of neuronal circuits. The involvement of astrocytes in cortico-limbic function and behavior. Circuitry dysfunction in absence epilepsy. Animal Behavioral Testing in Theory and Practice: How to Assess Memory, Anxiety and Depression. Animal models of epilepsy. Nociceptive pathways and Mechanisms involved in the genesis of pain.	Teórica	Tue, 29/Nov/22	17:15	-	19:15	Aud. 58
						Seminário	Wed, 30/Nov/22	09:30	-	18:30	Sala 9 - IFA
						Teórica	Tue, 06/Dec/22	17:15	-	19:15	Aud. 58
						Seminário	Wed, 07/Dec/22	17:00	-	18:30	Anf. Prof. Marck Athias
						Teórica	Tue, 13/Dec/22	17:15	-	19:15	Anf. 1.10, ERS
						Seminário	Sat, 17/Dec/22	17:00	-	18:30	Aud. 57
						Teórica	Thu, 15/Dec/22	17:15	-	19:15	Anf. 1.10, ERS
Avaliação	Mon, 19/Dec/22	14:30	-	16:30	Aud. 57						
Neuroethics / Neuroética UC: Neuroética	14	4T	0.5	J. Alexandre Ribeiro	Ethics of Neurosciences and Neurosciences of Ethics. Conscious States. Advanced Directives. Chronic disorders of consciousness (doenças crónicas da consciência). The ethics in neurological research. Ethics and legislation in animal research. Role of an Ethics Committee in a University Hospital. Artificial Intelligence: a view on Morality, or artificial agents with qualities. Reciprocal inputs between Neuroscience and Robotics. Neurosciences at CAML.	Teórica	Tue, 03/Jan/23	17h15	-	19h15	Sala 7 IFA
						Seminário	Wed, 04/Jan/23	09:30	-	18h00	Sala 6 IFA
						Teórica	Thu, 05/Jan/23	17h15	-	19h15	Sala 7 IFA
						Teórica	Tue, 10/Jan/23	17h15	-	19h15	Sala 7 IFA
						Seminário	Wed, 11/Jan/23	09h00	-	16:00	A. Magna
						Teórica	Thu, 12/Jan/23	17h15	-	19h15	Sala 8 IFA
Autonomic Function / Função Autonómica UC: Neurofisiologia de Sistema	336	34T; 34TP; 16S	2	Isabel Rocha	Functional organization of the autonomic nervous system: Receptors and autonomic neurotransmission. Sympatric preganglionic neurons and determinants of sympathetic nerve discharge. Vagal preganglionic neurons. Central autonomic pathways. Sensory innervation of the viscera. Regulation of body homeostasis: Cardiorespiratory control. Autonomic regulation of urinary bladder. Studying the autonomic nervous system: Animal studies and human evaluation: Invasive vs non invasive methodologies. Biological signal processing and the search for an autonomic signature. Maintenance of a steady-state: ANS and hypertension. Sleep and autonomic function. Alterations in autonomic function in spinal cord injury. Autonomic influence on paroxysmal atrial fibrillation. Reflex syncope and autonomic function.	Teórica	Tue, 17/Jan/23	17:15	-	19:15	Aud. 58
						Teórica	Thu, 19/Jan/23	17:15	-	19:15	Aud. 58
						Teórica	Fri, 17/Mar/23	17:15	-	19:15	
						Teórica	Tue, 24/Jan/23	17:15	-	19:15	Aud. 58
						Teórica	Thu, 26/Jan/23	17:15	-	19:15	Aud. 58
Pathology of the Nervous System / Patologia do Sistema Nervoso UC: Neuroanatomia e Neuroimagiologia	112	18T; 10TP	2	José Pimentel	Central Nervous System: Glial tumours; Epilepsy; Neuropathology of dementia. Peripheral Nervous System: Muscle and nerve biopsies; Myopathies; Skin biopsy (diagnosis of small fiber neuropathies); Familial amyloid polyneuropathy. Practical aspects: Visit to the Laboratory of Neuropathology; Acquaintance of the different.	Teórica	Tue, 31/Jan/23	17:00	-	19:00	Aud. 58
						Seminário	Wed, 01/Feb/23	09:00	-	12:00	Lab P8
							14:00	-	17:00	a definir	
						Teórica	Thu, 02/Feb/23	17:00	-	19:00	a definir
						Teórica	Tue, 07/Feb/23	17:00	-	19:00	a definir
						Seminário	Wed, 08/Feb/23	09:00	-	12:00	Lab P8
14:00	-	17:00	a definir								
Teórica	Thu, 09/Feb/23	17:00	-	19:00	a definir						



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Clinical Neurophysiology / Neurofisiologia Clínica UC: Neurofisiologia de Sistema	336	34T; 34TP; 16S	4.5	Mamede de Carvalho	Instrumentation and Technical Notes on Clinical Neurophysiology; Axonal Excitability; Cortical Stimulation and Deep Brain Stimulation; Electroencephalography and Video- EEG Monitoring; Electrocardiography; Electromyography; Evoked Potentials; Magnetic Stimulation; Transcranial and Trans-spinal direct-current stimulation; Sleep Study; Small-Fiber Neuropathy; Spinal cord Physiology; Vestibular Function.	Teórica	Tue, 14/Feb/23	17:15	-	19:15	a definir
						Seminário	Wed, 15/Feb/23	11:30	-	13:00	a definir
						Teórica	Thu, 16/Feb/23	17:15	-	19:15	a definir
						Seminário	Wed, 22/Feb/23	11:15	-	12:30	a definir
						Teórica	Thu, 23/Feb/23	17:15	-	19:15	a definir
						Teórica	Tue, 28/Feb/23	17:15	-	19:15	a definir
						Seminário	Wed, 01/Mar/23	10:30	-	15:30	a definir
						Teórica	Thu, 02/Mar/23	17:15	-	19:15	a definir
Biostatistics / Bioestatística UC: Bioestatística	98	10T; 10TP; 5S	3.5	Paulo Nogueira	Planning a study and Exploratory Data Analysis; Concept of a Statistical Test; Tests to compare independent samples; Confidence intervals; Survival analysis: Kaplan-Meier, log-rank test.	Teórica	Tue, 07/Mar/23	17:00	-	19:00	S49 P-1 EEM
						Seminário	Wed, 08/Mar/23	17:00	-	19:00	a definir
						Teórica	Thu, 09/Mar/23	17:00	-	19:00	a definir
						Teórica	Tue, 14/Mar/23	17:00	-	19:00	a definir
						Seminário	Wed, 15/Mar/23	17:00	-	19:00	a definir
						Teórica	Thu, 16/Mar/23	17:00	-	19:00	a definir
						Teórica	Thu, 16/Mar/23	17:00	-	19:00	a definir
						Teórica	Tue, 21/Mar/23	17:00	-	19:00	a definir
						Seminário	Wed, 22/Mar/23	17:00	-	19:00	a definir
						Teórica	Thu, 23/Mar/23	17:00	-	19:00	a definir
Research in Clinical Neurosciences / Investigação Clínica em Neurociências UC: Investigação Clínica em Neurociências	168	17T; 17TP; 8S	6	Patrícia Canhão	Basic tools of clinical research in neurosciences; Type of studies: case reports and case-series, case-control studies, cohort studies, systematic reviews of observational studies; Random and systematic errors; Risk factors and causal association; Prognostic research; Diagnostic Tests; Translational research in neurosciences; Clinical research in neurophysiology; Research in genetic neurological disorders; Critical appraisal of literature.	Teórica	Tue, 28/Mar/23	17:00	-	19:00	a definir
						Seminário	Wed, 29/Mar/23	10:00	-	17:00	a definir
						Teórica	Thu, 30/Mar/23	17:00	-	19:00	a definir
						Teórica	Tue, 11/Apr/23	17:00	-	19:00	a definir
						Seminário	Wed, 12/Apr/23	10:00	-	17:00	a definir
Therapeutic Research in Neurosciences / Investigação Terapêutica em Neurociências UC: Investigação Clínica em Neurociências	168	17T; 17TP; 8S	3	Joaquim Ferreira	Drug discovery and preclinical development; Clinical development of medicinal products; How to design a clinical trial; Clinical outcomes and biomarkers; Safety of medicinal products and medical devices; Research with non-pharmacologic therapeutic interventions; Systematic reviews, meta-analysis and critical appraisal of data; Introduction to pharmacoconomics.	Teórica	Tue, 18/Apr/23	17:15	-	19:15	a definir
						Seminário	Wed, 19/Apr/23	14:00	-	18:00	a definir
						Teórica	Thu, 20/Apr/23	17:15	-	19:15	a definir
						Teórica	Tue, 25/Apr/23	17:15	-	19:15	a definir
						Seminário	Wed, 26/Apr/23	14:00	-	18:00	a definir
Teórica	Thu, 27/Apr/23	17:15	-	19:15	a definir						



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Cognitive Functions / Funções Cognitivas UC: Neuropsicologia	140	14T; 14P; 7S	4.5	Isabel Pavão Martins	Functional organization of language: The study of focal lesions; Models of learning and decision making; Assessment of memory systems. Right hemisphere syndromes and space delusions: Executive functions and the frontal lobes; Cognitive rehabilitation.	Teórica	Tue, 02/May/23	17:00	-	19:00	a definir
						Seminário	Wed, 03/May/23	17:00	-	19:00	Lab P8
						Teórica	Thu, 04/May/23	17:00	-	19:00	a definir
						Teórica	Tue, 09/May/23	17:00	-	19:00	a definir
						Seminário	Wed, 10/May/23	17:00	-	19:00	Lab P8
						Teórica	Thu, 11/May/23	17:00	-	19:00	a definir
						Teórica	Tue, 16/May/23	17:00	-	19:00	a definir
						Seminário	Wed, 17/May/23	17:00	-	19:00	Lab P8
Cognitive Deterioration in Ageing and Dementia / Deterioração Cognitiva no Idoso e Demência UC: Neuropsicologia	140	14T; 14P; 7S	0.5	Alexandre de Mendonça	Historical notes about cognition and ageing. General theories of ageing of the brain and of the organism. Markers of brain ageing. Brain ageing in different species. Neuronal and synaptic morphologic changes. Electrophysiological changes of ageing, including Long Term Potentiation. Neurochemical changes of cholinergic, dopaminergic, adenosinergic systems. The biological significance of brain ageing. Subjective Memory Complaints. Neuropsychological tests. Genetic factors. Cerebrospinal fluid biomarkers. Magnetic resonance imaging. PETscan biomarkers. Historical	Teórica	Tue, 23/May/23	17:15	-	19:15	a definir
						Seminário	Wed, 24/May/23	16:00	-	19:00	a definir
						Teórica	Thu, 25/May/23	17:15	-	19:15	a definir
Computational Neuroscience / Neurociência Computacional UC: Neurofisiologia de Sistema	336	34T; 34TP; 16S	1.5	Tiago Maia	Computational Cognitive Neuroscience; Computational Psychiatry; Computational Models of Single Neurons and Neuronal Networks; Fitting Computational Models to Behavioral.	Teórica	Tue, 30/May/23	17:15	-	19:15	S7 P-1 EEM
						Seminário	Wed, 31/May/23	10:30	-	18:30	S49 P-1 EEM
						Teórica	Thu, 01/Jun/23	17:15	-	19:15	S7 P-1 EEM

A Comissão Científica do Curso reserva-se o direito de poder alterar os horários agora indicados. Neste caso serão informados atempadamente pelos serviços da IFA.