
Ano Letivo 2017-18

Unidade Curricular NEUROCIÊNCIAS, DESENVOLVIMENTO E PLASTICIDADE CEREBRAL

Cursos

Unidade Orgânica Faculdade de Ciências Humanas e Sociais

Código da Unidade Curricular 15261026

Área Científica

Sigla

Línguas de Aprendizagem English

Modalidade de ensino Teóricas e teóricas-práticas

Docente Responsável Karl Magnus Petersson

DOCENTE	TIPO DE AULA	TURMAS	TOTAL HORAS DE CONTACTO (*)
Karl Magnus Petersson	OT; T; TP	T1; TP1; OT1	19.5T; 19.5TP; 5OT

* Para turmas lecionadas conjuntamente, apenas é contabilizada a carga horária de uma delas.

ANO	PERÍODO DE FUNCIONAMENTO*	HORAS DE CONTACTO	HORAS TOTAIS DE TRABALHO	ECTS
			0	0

* A-Anual;S-Semestral;Q-Quadrimestral;T-Trimestral

Precedências

Sem precedências

Conhecimentos Prévios recomendados

Conhecimento em Psicologia Cognitiva / Biológica / Neurobiológica no nível BSc é útil. Além disso, o conhecimento elementar em Neurociência e Biologia / Química / Física é útil

Objetivos de aprendizagem (conhecimentos, aptidões e competências)

Com esta unidade curricular pretende-se que o aluno tome conhecimento das diferentes fases do desenvolvimento do sistema nervoso central e dos diferentes factores, endógenos e exógenos e as suas interações, que interferem neste desenvolvimento. Nesta unidade serão igualmente discutidos os mecanismos neuronais subjacentes aos fenómenos de neuroplasticidade e todas as situações onde podem ser observados estes fenómenos como situações de lesão cerebral, privações sensoriais e situações de aprendizagem.

Conteúdos programáticos

1. Development & Neuroembryogenesis: pp. 88-106 in ch. 3 of Gazzaniga's Cognitive Neuroscience
2. What is pharmacology? ch. 1 in Rang & Dale Pharmacology
3. How drugs act: general principles & molecular aspects: ch. 2 in Rang & Dale Pharmacology
4. Cell proliferation & apoptosis: ch. 5 in Rang & Dale Pharmacology
5. Emotion: ch. 9 in Gazzaniga's Cognitive Neuroscience
6. Social Cognition: ch. 14 in Gazzaniga's Cognitive Neuroscience
7. Evolutionary perspectives: ch. 15 in Gazzaniga's Cognitive Neuroscience
8. Hemispheric specialization: ch. 11 in Gazzaniga's Cognitive Neuroscience
9. Developmental disorders: ch. 24 in Kolb & Whishaw Fundamentals of Human Neuropsychology
10. Plasticity, recovery, and rehabilitation of the adult brain: ch. 25 in Kolb & Whishaw Fundamentals of Human Neuropsychology

Metodologias de ensino (avaliação incluída)

As aulas teóricas seguem o método de leitura clássico. No entanto, o aluno é constantemente convidado a |

Bibliografia principal

- (1) Gazzaniga, M. S., Ivry, R. B., Mangun, G. R., Steven, M. S. (2009). *Cognitive Neuroscience: The Biology of Mind*, 3rd Edition.
- (2) Brian Kolb & Ian Q. Whishaw, 2008. *Fundamentals of Human Neuropsychology*, 6th edition.
- (3) H.P. Rang, M.M. Dale, J.M. Ritter, R. Flower (2007). *Rang & Dale's Pharmacology*. Churchill Livingstone; 6th edition.

Academic Year 2017-18

Course unit NEUROSCIENCE AND BRAIN PLASTICITY AND DEVELOPMENT

Courses

Faculty / School Faculdade de Ciências Humanas e Sociais

Main Scientific Area

Acronym

Language of instruction English

Teaching/Learning modality Lectures

Coordinating teacher Karl Magnus Petersson

Teaching staff	Type	Classes	Hours (*)
Karl Magnus Petersson	OT; T; TP	T1; TP1; OT1	19.5T; 19.5TP; 5OT

* For classes taught jointly, it is only accounted the workload of one.

Contact hours

T	TP	PL	TC	S	E	OT	O	Total
0	0	0	0	0	0	0	0	0

T - Theoretical; TP - Theoretical and practical ; PL - Practical and laboratorial; TC - Field Work; S - Seminar; E - Training; OT - Tutorial; O - Other

Pre-requisites

no pre-requisites

Prior knowledge and skills

Knowledge in Cognitive/Biological/Neurobiological Psychology at the BSc level is helpful. In addition, elementary knowledge in Neuroscience and Biology/Chemistry/Physics is useful.

The students intended learning outcomes (knowledge, skills and competences)

With this curricular unit it is intended that the student becomes aware of the different phases of the development of the central nervous system and the different endogenous and exogenous factors and their interactions that interfere in this development. In this unit will also be discussed the neuronal mechanisms underlying the phenomena of neuroplasticity and all situations where these phenomena can be observed as situations of brain injury, sensory deprivation and learning situations..

Syllabus

1. Development & Neuroembryogenesis: pp. 88-106 in ch. 3 of Gazzaniga's Cognitive Neuroscience
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Teaching methodologies (including evaluation)

Theoretical & Theoretical-practical Lectures

Main Bibliography

- (1) Gazzaniga, M. S., Ivry, R. B., Mangun, G. R., Steven, M. S. (2009). *Cognitive Neuroscience: The Biology of Mind*, 3rd Edition.
- (2) Brian Kolb & Ian Q. Whishaw, 2008. *Fundamentals of Human Neuropsychology*, 6th edition.
- (3) H.P. Rang, M.M. Dale, J.M. Ritter, R. Flower (2007). *Rang & Dale's Pharmacology*. Churchill Livingstone; 6th edition.