English version at the end of this document

Ano Letivo	2020-21
Unidade Curricular	NEUROCIÊNCIAS, DESENVOLVIMENTO E PLASTICIDADE CEREBRAL
Cursos	NEUROCIÊNCIAS COGNITIVAS E NEUROPSICOLOGIA (2.º ciclo) (*) ESPECIALIZAÇÃO DE NEUROPSICOLOGIA (*) Curso onde a unidade curricular é opcional
Unidade Orgânica	Faculdade de Ciências Humanas e Sociais
Código da Unidade Curricular	15261026
Área Científica	PSICOLOGIA
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
1º	S2	19.5T; 19.5TP; 5OT	140	5

* 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 interacções, 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.

UAlg
UNIVERSIDADE DO ALGARVE

Academic Year	2020-21
Course unit	NEUROSCIENCE AND BRAIN PLASTICITY AND DEVELOPMENT
Courses	COGNITIVE NEUROSCIENCE AND NEUROPSHICOLOGY (*) (*) Optional course unit for this course
Faculty / School	FACULTY OF HUMAN AND SOCIAL SCIENCES
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
19.5	19.5	0	0	0	0	5	0	140

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

2. What is pharmacology? ch. 1 in Rang & Dale Pharmacology

3. How drugs act: general principles & molecular aspects: ch. 2 in Rang & Dale Pharmacology

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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.