



UNIVERSITÀ DI PAVIA

Anno Accademico 2017/2018

PHYSIOLOGICAL PSYCHOLOGY	
Enrollment year	2016/2017
Academic year	2017/2018
Regulations	DM270
Academic discipline	M-PSI/02 (PSYCHOBIOLOGY AND PHYSIOLOGICAL PSYCHOLOGY)
Department	DEPARTMENT OF BRAIN AND BEHAVIORAL SCIENCES
Course	PSYCHOLOGICAL SCIENCES
Curriculum	PERCORSO COMUNE
Year of study	2°
Period	2nd semester (19/02/2018 - 06/06/2018)
ECTS	9
Lesson hours	54 lesson hours
Language	Italian
Activity type	WRITTEN TEST
Teacher	TORALDO FRANCESCO (titolare) - 9 ECTS
Prerequisites	It is mandatory to have successfully passed the exam "Anatomo-physiological bases of psychological processes". Basic notions are required on: electrophysiology of membrane, spike, rest potentials, physiology of the neural system and of the sensory systems
Learning outcomes	To provide an overview of the neurophysiological and neuropsychological bases of human behaviour.
Course contents	§ Introduction to Neuroscience § Chemical control of behaviour: - Hypothalamus - Autonomous Nervous System - Diffuse modulator neurotransmitter systems § Cerebral rhythms - Electroencephalogram (EEG)

- Sleep and dreams
- Cerebral clocks
- § Neurophysiological basis of emotions
- § Neurophysiological basis of memory
- Memory and its disturbances:
 - short term memory (STM) and long term memory (LTM)
 - LTM and its disturbances: amnesia
 - STM and its disturbances
- § Neuropsychology: introductive concepts
- § Behavioural methods in neuropsychology
- § Experimental and clinical data evaluation
- § Methodological fundamentals in neuropsychology
- § Behavioural, electrophysiological and imaging methods of investigation
- § Neuropsychology of attention
- § Aphasia's concept evolution
 - neurological basis of language
 - Written language and its disturbances: dyslexia and dysgraphia
- § Objects identification and its disturbances: agnosia
- § Motor programming disturbances: apraxia
- § Spatial cognition and its disturbances: unilateral neglect and other impairments
- § Behavioural organization and its disturbances: frontal syndrome

Teaching methods

Reccomended or required readings

PSICOLOGIA FISIOLOGIA 9 credits – code [501413] – academic years 2010-2011 and following

-Slides shown during the lectures (which will be made available online in due course: psicologia.unipv.it, "area download", "materiale didattico", "toraldo", "psicologia fisiologica")

[Part A] -Bear MF, Connors BW, Paradiso MP

Esplorando il cervello (Masson; 3° Edizione, 2007)

Cap 1 Introduzione alle Neuroscienze

Cap 15 Il controllo chimico del cervello e del comportamento

Cap 18 I meccanismi cerebrali delle emozioni

Cap 19 I ritmi del cervello e il sonno

Cap 21 L'attenzione

Cap 24 I sistemi di memoria* [to be integrated with further material provided during the lectures]

Cap 25 I meccanismi molecolari dell'apprendimento e della memoria – solo pp. 789-798.

[Part B] -Vallar G, Papagno C

Manuale di Neuropsicologia (Il Mulino; 2° Edizione, 2011)

Cap 1 Introduzione alla Neuropsicologia

Cap 3 Gli esami strumentali nella neuropsicologia clinica

Cap 4 Elementi di neurologia

Cap 6 Afasia

Cap 8 I disturbi dell'elaborazione dei numeri e del calcolo

Cap 9 Aprassie
 Cap 11 I disturbi della rappresentazione del corpo
 Cap 12 Attenzione - solo pagine 213-222 (ad integrazione di cap 21 Bear)
 Cap 13 Agnosie
 Cap 14 I disturbi visuo-spaziali
 Cap 16 I disturbi esecutivi
 Cap 17 La sindrome da disconnessione callosale
 *Moreover: supplementary material on dyslexias and dysgraphias, provided during the lectures

PSICOLOGIA FISIOLOGIA 5 credits – code [52936] – academic years before and including 2009-2010

-Only Part A above

NEUROPSICOLOGIA 5 credits – code [52939] - academic years before and including 2009-2010

-Only Part B above

Assessment methods

Written, multiple-choice exam.

Please note that starting from the first exam of January 2018, students will be allowed to reject a "sufficient" (18/30 or higher) grade only once; the second "sufficient" grade will be compulsorily recorded. Rejected-grade count will start in January 2018.

For more information, please visit the web site: <http://psicologia.unipv.it/>, "area download", "materiale didattico", "toraldo", "psicologia fisiologica".

Further information

Sustainable development goals - Agenda 2030

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