



UNIVERSITÀ DEGLI STUDI DI PALERMO

DEPARTMENT	Biomedicina, Neuroscienze e Diagnostica avanzata		
ACADEMIC YEAR	2022/2023		
BACHELOR'S DEGREE (BSC)	NEUROPHYSIOPATHOLOGY TECHNIQUES		
INTEGRATED COURSE	NEUROLOGY, PRINCIPLES AND TECHNIQUES OF ELECTROENCEPHALOGRAPHY - INTEGRATED COURSE		
CODE	22327		
MODULES	Yes		
NUMBER OF MODULES	3		
SCIENTIFIC SECTOR(S)	MED/26, MED/48		
HEAD PROFESSOR(S)	MONASTERO ROBERTO	Professore Associato	Univ. di PALERMO
OTHER PROFESSOR(S)	MONASTERO ROBERTO	Professore Associato	Univ. di PALERMO
	LO BUE VITO	Professore a contratto	Univ. di PALERMO
	GANGITANO MASSIMO	Ricercatore	Univ. di PALERMO
CREDITS	7		
PROPAEDEUTICAL SUBJECTS			
MUTUALIZATION			
YEAR	1		
TERM (SEMESTER)	2° semester		
ATTENDANCE	Mandatory		
EVALUATION	Out of 30		
TEACHER OFFICE HOURS	GANGITANO MASSIMO Wednesday 15:00 - 17:00 via del Vespro 129		
	MONASTERO ROBERTO Wednesday 13:00 - 14:00 BioNeC, via G. La Loggia 1, Complesso didattico "Aula Rubino", al termine delle lezioni di Neurologia		

MODULE ELECTROENCEPHALOGRAPHY

Prof. MASSIMO GANGITANO

SUGGESTED BIBLIOGRAPHY

Mecarelli O., Manuale teorico pratico di elettroencefalografia. Wolters Kluwer Health, Milano 2009. ISBN: 978-88-7556-427-8
<https://www.libreriauniversitaria.it/manuale-teorico-pratico-elettroencefalografia-mecarelli/libro/9788875564278>

AMBIT	10343-Scienze e tecniche di neurofisiopatologia
INDIVIDUAL STUDY (Hrs)	30
COURSE ACTIVITY (Hrs)	20

EDUCATIONAL OBJECTIVES OF THE MODULE

The aim of the teaching course is: 1) to acquire the knowledge of electroencephalography (EEG) and recording techniques; 2) to recognize the characteristics of the physiological EEG in basal conditions and during the various activation methods; 3) to acquire the technical knowledge on electrodes positionig and type of electrodes ; 4) to learn the neurophysiological basis of the EEG and of the recording methods; 5) to learn the knowledge on the EEG reporting methods, its indications and the diagnostic value in the main pathologies of the Central Nervous System

SYLLABUS

Hrs	Frontal teaching
2	Origin of the electroencephalographic signal
4	Signal recording and analysis techniques
2	Normal adult EEG, in wakefulness and sleep
2	Clinical applications of the EEG
2	Epileptiform and critical EEGraphic anomalies; role of EEG investigations (routine, video-EEG, other EEG-related techniques) in the diagnosis of epileptic disorders
2	EEGgraphic anomalies of amplitude, localized and generalized. The electrical silence of the brain and the diagnosis of brain death
2	Epileptic seizures, epilepsies, states of epileptic disease: definitions, epidemiology, nosography (classification of seizures and epilepsies), etiology, diagnosis (clinical, neurophysiological, neuroradiological), therapy (pharmacological and surgical)
2	Non-epileptic critical manifestations, with particular reference to syncopes (cardiogenic and neuro-mediated) and psychogenic crises.
2	Deviations from the norm of normal EEG patterns; paraphysiological EEG pictures

MODULE NEUROLOGY

Prof. ROBERTO MONASTERO

SUGGESTED BIBLIOGRAPHY

LIBRI per APPROFONDIMENTO

- A. Berardelli, G. Cruccu: La neurologia della Sapienza, Società Editrice Esculapio, 2019 (ISBN 9788834184493)
- C. Ferrarese: Core Curriculum: Malattie del Sistema Nervoso, II edizione, McGraw Hill, 2016 (ISBN 8838639892)
- A. Federico, C. Caltagirone, L. Provinciali, G. Tedeschi: Neurologia Pratica, EdiSES, 2014 (ISBN 8879598317)
- P. Barone, U. Bonuccelli: Neurologia Clinica. Per Studenti e Medici di Medicina Generale, EDIZIONI Idelson Gnocchi, 2021 (ISBN: 9788879477529)

LIBRI PER LE PROFESSIONI SANITARIE

- di A. Padovani, B. Borroni, M. S. Cotelli: Neurologia per le professioni sanitarie, Piccin, 2017 (EAN 9788829928316)
- P. Bertora: Neurologia per i corsi di laurea in professioni sanitarie, Piccin, 2015 (ISBN 9788829927449)
- A. Federico, C. Angelini, P. Franza: Neurologia e assistenza infermieristica. Manuale per professioni sanitarie, EdiSES, 2014 (ISBN 9788879598576)

Insieme ai libri sopra descritti, utilizzare il Materiale didattico (dispense, fotocopie, articoli scientifici e set di diapositive) preparato dal docente del modulo.

AMBIT	10343-Scienze e tecniche di neurofisiopatologia
INDIVIDUAL STUDY (Hrs)	30
COURSE ACTIVITY (Hrs)	20

EDUCATIONAL OBJECTIVES OF THE MODULE

Knowledge acquisition regarding major neurological diseases/disorders, with particular attention to neuropsychiatric diseases with mixed pathology, including concepts re rehabilitation. The basic principles of neuroanatomy and neurophysiology of the central nervous system are included.

SYLLABUS

Hrs	Frontal teaching
2	Anatomy of clinical neurology. Major neurological syndromes
2	Cerebrovascular disease
2	Neurodegenerative disease and Parkinson's disease
2	Higher cognitive functions. Dementia and mild cognitive impairment
2	Epilepsy
2	Primary headaches
2	Demyelinating disease
2	Motor neuron diseases. Muscle diseases and Myasthenia gravis
2	Diseases of the spinal cord. Peripheral neuropathies
Hrs	Practice
2	Intermediate course evaluation test (multiple choice questionnaire will be administered)

MODULE EEG RECORDING TECHNIQUES

Prof. VITO LO BUE

SUGGESTED BIBLIOGRAPHY

materiale didattico fornito dai docenti

AMBIT	10343-Scienze e tecniche di neurofisiopatologia
INDIVIDUAL STUDY (Hrs)	45
COURSE ACTIVITY (Hrs)	30

EDUCATIONAL OBJECTIVES OF THE MODULE

acquire the knowledge on the electroencephalographic technique from the functioning of the electroencephalograph to the procedures of recording, analysis and writing of technical EEG record.

SYLLABUS

Hrs	Frontal teaching
4	basic knowledge on EEG machine
3	Patient preparation to EEG recording
3	EEG electrodes: types, function, impedance, application
3	electrode montages
3	Recording parameters for EEG signal: amplification filters, impedance check
3	Baseline EEG recording and activation tests
4	artifacts: typology, identification, correction, reporting
4	Patient management and EEG monitoring during recording:
3	Evaluation of the EEG recording and writing of technical report