COURSE DESCRIPTION

1. Data on the program

1.1.	UNIVERSITATEA DE MEDICINĂ ŞI FARMACIE "CAROL DAVILA"
1.2.	Faculty of Medicine / DEPARTMENT DEPARTMENT 6-Neurology, Neurosurgery, Psichiatry, Psichiatry of Child and Adolescent
1.3.	DEPARTMENT Paediatric Neurology II
1.4.	FIELD OF STUDY Health
1.5.	STUDY CYCLE: LICENCE
1.6.	STUDY PROGRAM Medicine

2. Data on discipline

2.1.	Optional Discipline Name: Basic practical skills of clinical electroencephalography in children						
2.2.	Discipline location: „Prof. Dr. Al. Obregia" Hospital, Pediatric Neurology Clinic						
2.3.	Holder of English course activities: Prof. dr Dana Cristina Craiu						
2.4.	Holder of workshop activities: Asistant Profesor dr. Tarta-Arsene Oana , Asistant Profesor dr. Motoescu Cristina Haritina, Asistant Profesor dr. Pomeran Cristina; Asistant Profesor dr. Carmen Sandu						
2.5. Study year	III	2.5. Semester	I,II	2.6. Evaluation Type	Written and practical examination	2.7. Discipline regimen	DS

3. Total estimated time (hours/semester of didactic activity)

3.1. Nr hours per week	3,5	From which: 3.2. cours	1	3.3. seminar/ laboratory	2,5
3.4. Total hours from the education plan	14	From which : 3.5. cours	4	3.6. seminar/ laboratory	10
Distribution of the time table	4		3,5 hours/day		
Study from the manual, cours support, bibliography and notes					
Suplementary documentation in the library, on electronic speciality platforms and on the field					
Preparing seminary / laboratory, homework, papers, portofolio şi essay					
Tutorial					
Examinations					
Other activities					
3.7. Total hours individual study					
3.9. Total hours per semester					
3.10. Number of credits					

4. Preconditions (where appropriate)

4.1. of curriculum	Knowledge of anathomy and physiology of the brain
4.2. of competence	Not applicable

5. Conditions (where appropriate)

5.1. of the course conduct	Maximum 40 participants
5.2. of the seminary / laboratory conduct	For a good practical activity, it is necessary that the participants will be split in small groups

6. Specific skills acquired

Proffesional skills (expressed through knowledge and skills)	• Understanding of the EEG role for diagnosis and treatment of the neurological diseases • Learning the practical montage of electrodes in the 10-20 system • Learning the practical standard EEG recording • Learning how to practically perform intermittent light stimulation and Hyperventiilation • Recognising cerebral rhythms • Recognising pathological lesional and epileptiform wave-forms • Learning the steps of EEG reading • Recognising sleep stages • Recognising epileptic seizures in video-EEG recordings • Identifying artifacts on EEG
Transversal skills (role, proffesional development, personal)	• Achieving practical skills to allow working in a multidisciplinary team, developing knowledge in the area of functional anatomy, neurophysiology, epilepsy physiopathology; understanding better future medical diseases which have EEG changes in pediatric neurology and neurology • Identification of roles and responsibilties in an multi-disciplinary team, implementation of relationship and effective work techniques in the team and in relationship with the neurological pediatric patient

7. Discipline objectives (based on the grid of accumulated specific skills)

7.1. General Objective	Aquiring practical skills for performing standard EEG, sleep EEG and EEG interpretation
7.2. Specific Objective	Learning practical awake EEG recording Performing sleep EEG Learning the practice of light stimulation procedure Learning hyperventilation procedure Learning the steps of EEG interpretation Learning cerebral rhythms Identifying pathological rhythms Learning artifacts recognition

8. Contents

8.1. Courses	Teching method	Observations
Course 1 EEG machine, electrodes, montages, 10-20 electrodes placing system, Hyperventilation and light stimulation procedures – pediatric particularities	Lectures are tought in English language in the amphiteatre and classrooms technicaly equiped for this purpose. Electroded montages in 10-20 system will be practiced on baby dolls and patients Two EEG machines will be used for EEG recordings Video-EEG recordings will be discussed	
Course 2 Cerebral rhythms, awake and sleep EEG, artifacts, steps of EEG reading – particularities in children		
Course 3 EEG in epilepsies		
Course 4 EEG in other neurologica diseases in children		
8.2. Practical/clinical teaching	**Teching method**	**Observations**
SC 1 10-20 electrodes placement – practice on manechines	Students will be split in small groups working in teams for head measuring and electrodes placing Students will perform standard EEG recording and sleep EEG and will follow patients Reading EEG will be initially demonstrated, then students will interpret minimum 5 EEG recordings and will write the EEG result	
SC 2 Practical recording of standard EEG with HV and ILS; identifying artifacts		
SC 3 Reading and interpreting EEG		
SC 4 Diagnosing non-epileptic events – video-EEG demonstration		

References

1. Dumitru Constantin, Dana Craiu, Carmen Adela Sarbu, Niculina Butoianu, Tudor Lupescu, Cristina Dinu Popescu. ELECTROENCEFALOGRAMA CLASICA SI MODERNA LA ADULT SI COPIL. Editura Medicala, 2008.
2. NEUROLOGIE PEDIATRICA. Note de curs - Craiu D, Iliescu C, Editura Universitara " Carol Davila", Bucuresti, 2013.

9. Bridging the cours content with the expectation of the representatives of epistemic community, professional associations and representative employers from the program related domain

The aim of the course is to teach students how to practically perform an EEG and how to read it. Students will be better prepared for understanding the neurological and pediatric neurological pathology to be learned in the Vth year. Aquiring practical skills for EEG recording and reading creates premises for research using EEG starting in early years. This practical competence creates the possibility of working in an EEG lab as employe.

10.Evaluation

Type of activity	8.1. Evaluation criteria	8.2. Evaluation methods	8.3. Percent of the final evaluation
Lecture		Written examination	30%
Seminary / laboratory		Practical examination	60%
		Interaction and involvement	10%
Minimum standard of performance			
Obtaining Note 5 (at written and practical examination)			

Date of completion:

15 May 2018

Signature of the holder of the discipline

Prof. dr Dana Cristina Craiu

Signature of the holder of the workshop

Asistant Profesor dr Tarta Arsene Oana

Asistant Profesor dr Pomeran Cristina

Asistant Profesor dr Motoescu Cristina

Asistant Profesor dr Sandu Carmen

Date of approval in Department Council:
4 april 2018

Signature of the Departemnt Director
Prof. Dr. Ovidiu Bajenaru

Anexx

Topics courses and seminars -Pediatric Neurology

1.Psychomotor development of the infant and toddler. Definitions. Abnormal development.
0-6 months old: neonatal period features according to gestational age; arhaic reflexes; psychomotor milestones; neurological exam;
6-12 months old: psychomotor milestones; neurological exam;
1-3 years old: psychomotor milestones; neurological exam)

2. Epilepsy; definition of seizures and epilepsy; classification of seizure, description, definitions; treatment of seizures: principles of treatment, treatment of seizure, different treatments depending on the type of seizures)

3.Epilepsy; epileptic syndromes: classification, description, electroclinical entities, treatment);

4. *Status epilepticus; definition; types; treatment*

5.*Neurocutaneous syndromes: tuberous sclerosis – definition, etiology, clinical symptoms and lab abnormalities, diagnostic, treatment; neurofibromatosis – definition, classification, etiology, clinical signs, lab tests and diagnostic criteria, treatment; Sturge-Weber disease: definition, classification, etiology, clinical signs, lab tests and diagnostic criteria, treatment*

6. *Hypoxic-ischemic encephalopathy: definition, etiology, anatomo-clinical forms depending on gestational age, classification*

7. *Cerebral pasly: definition, classification, clinical description / clinical forms and posible etiologies, treatment)*

8. *Headache: classification criteria; classification and types of headache, description of different types of headache, classical and commune migraine, treatment*

9. *Intracranial hypertension: definition, etiology and pathology, clinical and imagistic signs*

10 .Hidrocephaly: definition, etiology, clinical and radiological signs)

11. CNS malformations and craniostenosis: definitions, embryology, etiology, clinical and radiological signs of common CNS malformations, classification, prenatal diagnosis; treatment, prophylaxis; anencephaly, encephalocel, meningocel/meningomielocel,spina bifida oculta holoprozencephaly, corp calosum agenesis, Arnold Chiari malformation, microcephaly, megalencephaly, lisencephaly, cortical dysplasia, schizencephaly, neuronal heterotopy, porencephaly and hidranencephaly);Porencephaly, Hidranencephaly. Craniosynostosis

12. *Neuromuscular diseases: definition; myopathy; classification; clinical signs sugestiv for myopathy and lab tests; progressive muscular dystrophy – etiology/genetic; clinical signs – Duchenne or Becker phenotype, evolution and complications, lab tests, positive diagnostic; management of disease, treatment, prophylaxy.*

Neuromuscular junction syndrome: definition, general traits; gravis myasthenia – definition, classification, clinical signs, diagnostic, treatment, evolution.
Anterior horn syndrome – generalities. Spinal amyotrophy – definition, etiology, classification, clinical signs, evolution, complications, diagnostic, treatment

13 Non-epileptic paroxysmal events; syncope – definition, etiology, clinical signs, differential diagnosis with seizure, treatment; breath holding spells – definition, etiology, clinical signs, differential diagnosis with seizure, treatment; spasmus nutans, autogratifiant behavior, paroxystic benign vertigo, psychogenic crisis, night terror, sleep walking - clinical signs, differential diagnosis with seizure

14Febrile convulsions and occasional seizures; definition of occasional seizure – types; definition of febrile seizure; characteristics of simple and complicated febrile convulsions – treatment of seizure and recurrence