

**Cycle view of the study programme**

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**The training is organised over 2 academic years.**MCER2132-1 *Interuniversity certificate in clinical epileptology* - COLLÉGIALITÉ - [120h B1 TA 48 8 [+] 10  
TAE, 8h SEM]**Module 1.** Semiology of epileptic seizures and syndromes in childhood and adulthood (16 hours of theory)

- General organisation of the classification of epileptic syndromes
- Classification and semiology of seizures
- Epidemiology and etiology of epilepsies, including genetic aspects of epilepsy
- Diversity of adult epilepsies
- Childhood epileptic syndromes, including new-borns and infants
- Differential diagnosis of seizures: fainting, pseudo-seizures, parasomnia and other cases of paroxysmic neurological manifestations

**Module 2.** Exploring epilepsies: the EEG (8 hours of theory + 8 hours of practice)

- Technical and electrophysiological bases of EEG (generation of biopotentials, 10-20 system and electrode placement methods, amplification and digitalisation, analogue and digital signal manipulation, assemblies, and representation and reading conventions)
- Physiological activities of wakefulness and sleep and EEG ontogeny
- Non-epileptic pathological activities
- Epileptiform interictal activities and differential diagnosis (benign variants)
- Artefacts
- Seizures

**Module 3.** Pharmacological treatment of epilepsies (8 hours of theory)

- Neuropharmacological bases
- Neurophysiological bases of excitability and epileptogenicity concepts
- Various anti-epileptic medications available: modes of action, indications and safety profile
- Decisional algorithms and the respective roles of different treatments
- Practical aspects of follow-up of treated patients: biological and clinical monitoring, red flags

**Module 4.** Refractory epilepsies and non-pharmacological treatment of epilepsies (4 hours of theory)

- Refractory epilepsy: definition, epidemiology (30 minutes)
- Up-date and exploration of refractory epilepsies (video-EEG, Wada, neuropsychological evaluation, structural and functional imaging)
- Non-pharmacological approaches to treating epilepsy: surgery, stimulation, diet and complementary therapies

**Module 5.** Epileptic emergencies and acute epileptology (8 hours of theory)

- Clusters of seizures
- Status epilepticus
- Acute symptomatic seizures: treatment, prophylaxis and prognosis
- First seizure: conduct to follow
- Specific aspects of EEGs, seizures and epilepsy in patients in a critical condition

**Module 6.** Particular situations and psychosocial aspects (4 hours of theory)

- Epilepsy in women
- Epilepsy in elderly people
- Epilepsy and driving
- Epilepsy, development, disability and schooling
- Epilepsy and employment
- Medical and psychiatric comorbidities
- SUDEP and mortality in epileptic patients