



# Professional Enrichment Course

University of Pittsburgh School of Medicine

Office of Medical Education

PEC Registrar – Denise Downs [d downs@pitt.edu](mailto:d downs@pitt.edu) 412-648-8749

## A Seizure or Not a Seizure: How to Evaluate and Seize the Seizure

<b>Enrollment Period:</b>	Spring 2022
<b>Course Dates:</b>	Monday Afternoons (1-5PM) 3 Sessions to choose from - <ul style="list-style-type: none"><li>• <b>MS1 ONLY:</b> January 3, 10, 24, 31</li><li>• <b>MS1 or MS2:</b> February 7, 14, 21, 28</li><li>• <b>MS1 ONLY:</b> March 7, 14, 28 and April 4</li></ul>
<b>Student Max:</b>	2 students per session group
<b>Class Year:</b>	MS1, MS2
<b>Course Director:</b>	Thandar Aung MD MS
<b>Course Contact:</b>	Thandar Aung MD MS <a href="mailto:aungt@upmc.edu">aungt@upmc.edu</a>
<b>Location:</b>	Kaufmann Clinic Building – 8 <sup>th</sup> floor – Neurology Clinic
<b>Registration:</b>	Via Amp Up
<b>Course Description:</b>	<p>Epilepsy is the fourth most common neurological disorder affecting 1.2 percent of the US population, an estimated 3.4 million. Epilepsy and seizure-like spells are one of the most common neurological diagnoses leading to multiple emergency room visits and hospital admissions. Thus, seizure disorder is one of the conditions that medical students are required to evaluate during their clinical rotation at the University of Pittsburgh School of medicine. In the outpatient clinical epilepsy setting, evaluation of seizure patients begins with proper history and physical examination as epilepsy is the clinical diagnosis. A detailed history can differentiate epilepsy from other types of multiple seizure mimickers, such as syncope (cardiac or vasovagal), headache, and other neurological disorder such as movement and sleep disorders. In this mini-elective medical students will gain knowledge of how to diagnosis epilepsy after learning the art of taking the focused neurologic and seizure semiological history in addition to the full neurologic examination. Unlike other neurology subspecialties, the detailed description of seizure semiology can lead one to localize further which part of the brain is responsible for developing seizure activity. Thus, this epilepsy clinic minielective will illustrate the direct clinical application of neuroscience in the clinical outpatient setting. Furthermore, in this minielective medical students will learn about how the seizures affect a</p>

	patient's life (losing driver's license, occupational hazards, etc.) and will get hands-on experience managing socio-economic co-morbidities such as depression and anxiety, etc.
<b>Objectives:</b>	<ol style="list-style-type: none"> <li>1. Medical students will attain basic medical knowledge on how to differentiate seizures from other various seizure mimickers in the outpatient setting, such as syncope, cardiac or vasovagal, or various type of other neurological conditions.</li> <li>2. Medical students will be provided the framework of skills needed in the care for epilepsy patients, both pharmacological and non-pharmacological treatment</li> <li>3. Medical Students will learn how seizures affect patient's life and get hands-on experience managing various epilepsy co-morbidities such as losing driver license, depression, anxiety, etc.</li> </ol>
<b>Pre-Requisites:</b>	None
<b>Requirements:</b>	Medical students need mandatory attendance on at least 2 out of the 4 sessions.
<b>Texts:</b>	<p>Required Reading: will be provided at registration</p> <ul style="list-style-type: none"> <li>- Fisher RS, Cross JH, French JA, Higurashi N, Hirsch E, Jansen FE, Lagae L, Moshé SL, Peltola J, Roulet Perez E, Scheffer IE, Zuberi SM. Operational classification of seizure types by the International League Against Epilepsy: Position Paper of the ILAE Commission for Classification and Terminology. <i>Epilepsia</i>. 2017 Apr;58(4):522-530. doi: 10.1111/epi.13670. Epub 2017 March 8th. PMID: 28276060.</li> <li>- ILAE (International League Against Epilepsy) Epilepsy Classification: Powerpoint</li> <li>- Epilepsy Targeted Neuroanatomy PowerPoint</li> <li>- Seizure PowerPoint</li> </ul>

## COURSE OUTLINE

**Course Director(s):** Thandar Aung MD MS  
Assistant professor of Neurology  
Department of Epilepsy, Neurology

**Participating Faculty:** Thandar Aung MD MS  
Assistant professor of Neurology  
Department of Epilepsy, Neurology

Alexandra Urban MD  
Associate professor of Neurology  
Department of Epilepsy, Neurology

Joanna Fong-isariyawongse MD  
Associate professor of Neurology  
Department of Epilepsy, Neurology

## **Session**

Medical students need mandatory attendance on at least 2 out of the 4 sessions.

### **1<sup>st</sup> week Session 1: Monday 1- 5 pm**

**1 pm to 1:30 pm** : Orientation and mini-didactic lecture

**1:30 pm to 3 pm** – Epilepsy Outpatient clinic.

**3 pm to 5 pm** - Multidisciplinary surgical epilepsy conference.

### **2<sup>nd</sup> week Session 2: Monday 1- 5 pm**

**1 pm to 1:30 pm** : Didactic lecture – Epilepsy Classification – PowerPoint lecture

**1:30 pm to 3 pm** – Epilepsy Outpatient clinic.

**3 pm to 5 pm** - Multidisciplinary surgical epilepsy conference.

### **3<sup>rd</sup> week Session 3: Monday 1- 5 pm**

**1 pm to 1:30 pm** : Didactic lecture – Seizure – PowerPoint

**1:30 pm to 3 pm** – Epilepsy Outpatient clinic.

**3 pm to 5 pm** - Multidisciplinary surgical epilepsy conference.

### **4<sup>th</sup> week Session 4: Monday 1- 5 pm**

**1 pm to 1:30 pm** : Didactic lecture – Epilepsy targeted Neuroanatomy PowerPoint **1:30 pm to**

**3 pm** – Epilepsy Outpatient clinic.

**3 pm to 5 pm** - Multidisciplinary surgical epilepsy conference.

## **Description:**

### **Logistics:**

The course director will meet with each student at the beginning of the rotation. The course director will review the learning objectives, goals, and their interest. An updated schedule of activities will be provided on the first day of the rotation. Educational activities are located at Kaufmann Clinic as well as the UPMC Presbyterian campus. Daily schedules should be flexible enough to allow for breaks and self-guided educational time, and typical time includes 8 am to 4 pm. There are no night or weekend requirements.

Students will have direct interaction with faculty and fellows. An attending physician is responsible for and actively involved in the care provided to each patient. The medical students will be actively involved in all aspects of care from history taking, physical examination, treatment plan under supervision. The medical students will have one-on-one teaching on patient management. The program continuously monitors, provide, and obtain feedback from the medical student

### **Times and Venue:**

Students will be spending most time during the day with the faculty in the epilepsy clinic. During initial patient visits, students will learn to elicit relevant information with history taking, physical exams. Throughout the rotation, they will learn about specific differentiating factors on various seizure types and nonepileptic spells. They learn basic information on diagnostic and therapeutic options. The students will be exposed to the latest nonpharmacological treatment such as responsive neurostimulators, vagal nerve stimulators, and deep brain stimulators.

### **Evaluations:**

According to the learning objectives, each student will be evaluated. Faculty will evaluate competency in history taking, physical examination, differential diagnosis, management plans.

Grading is based on attendance, participation, and listed competencies. Individual feedback will be given throughout the rotation. The course director will meet with the students at the completion for a review, formal feedback sessions.

**COVID considerations:** During extenuating circumstances and when a medical student is quarantined, they will be given remote access to join the virtual clinic meeting, RNS clinic as well as surgical epilepsy conference via Teams.