



# 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

## The Essence of Sleep

<b>Enrollment Period:</b>	Winter/ Spring 2023
<b>Course Dates:</b>	Friday 1/6, 1/13, 1/27, 2/3, 2/10 (1-3PM)
<b>Student Max:</b>	5
<b>Class Year:</b>	MS1, MS2
<b>Course Director:</b>	Deepa Burman, MD; Mazen El Ali, MD; Hiren Muzumdar, MD
<b>Course Contact:</b>	Deepa Burman, MD - burmand@upmc.edu Mazen El Ali, MD - Elalim2@upmc.edu 412-648-8714
<b>Location:</b>	Virtual Didactic Sessions UPMC Children's Hospital Sleep Lab Wexford or Main UPMC Sleep Medicine Laboratory Montefiore Hospital
<b>Registration:</b>	Via Amp Up during registration period
<b>Course Description:</b>	This 5-session course will give an overview of the basics in sleep and sleep medicine in adults and pediatric population. This course will include hands-on experience in the sleep lab.
<b>Objectives:</b>	<ol style="list-style-type: none"><li>1. Understand basic physiology of sleep and circadian rhythm.</li><li>2. Become familiarized with sleep disorders in adults and children, including:<ol style="list-style-type: none"><li>a. Sleep related breathing disorders</li><li>b. Circadian Rhythm Sleep-Wake disorders</li><li>c. Insomnia</li><li>d. Parasomnias</li><li>e. Sleep related Movement Disorders</li><li>f. Central disorders of hypersomnolence</li></ol></li></ol>
<b>Pre-Requisites:</b>	None
<b>Requirements:</b>	Attend at least 4 sessions
<b>Texts:</b>	

**Course Director:**

Deepa Burman, MD, FAASM  
Mazen El Ali, MD; Co-Director  
Hiren Muzumdar; Co-Director

**Course Faculty:**

1. Deepa Burman MD
2. Hiren Muzumdar MD
3. Mazen El Ali MD
4. Devin McGuier PHD
5. Craig Halper, Frank Boyd, Nancy Popovich RPSGT
6. William Holmes RPSGT and Evan Lucas RPSGT

Additional assistance from sleep medicine fellows (2022 – Ilean Lamboy, Aaron Palmquist, Blair Stone) and Pediatric Sleep Medicine Nurse Practitioner – Dana Yurchak.

**Session I: Normal Sleep and Neurobiology Jan 6 2023**

*(Devin Mcguier)*

- Introduction to sleep and circadian neurobiology.
- An overview of normal sleep-wake cycle.
- Understand the neural structures and neurotransmitters influencing sleep.
- Understand how sleep is controlled and circadian rhythm dynamics.

*Hands on experience with using Sleep Diary on self.*

**Reading list:**

- Paruthi S, Brooks LJ, D'Ambrosio C, Hall WA, Kotagal S, Lloyd RM, Malow BA, Maski K, Nichols C, Quan SF, Rosen CL, Troester MM, Wise MS. Recommended amount of sleep for pediatric populations: a consensus statement of the American Academy of Sleep Medicine. *J Clin Sleep Med* 2016;12(6):785–786.
- Watson NF, Badr MS, Belenky G, Bliwise DL, Buxton OM, Buysse D, Dinges DF, Gangwisch J, Grandner MA, Kushida C, Malhotra RK, Martin JL, Patel SR, Quan SF, Tasali E. Recommended amount of sleep for a healthy adult: a joint consensus statement of the American Academy of Sleep Medicine and Sleep Research Society. *J Clin Sleep Med* 2015;11(6):591–592.
- Banks S; Dinges DF. Behavioral and physiological consequences of sleep restriction. *J Clin Sleep Med* 2007;3(5):519-528.

**Session II: Sleep Related Breathing Disorders in adults January 27<sup>th</sup> 2023**

*(Mazen El Ali)*

- An overview of obstructive and central sleep apneas.
- Understand the basic pathophysiology behind central and obstructive sleep apnea.
- An introduction to hypoventilation syndromes and causes
- Overview of treatment options.

*Will include hands on experience shadowing Home sleep apnea test and Polysomnography set up, along with familiarizing medical student to PAP (Positive Airway Pressure) devices. Medical Student will review scoring and interpretation of sleep studies with sleep provider.*

**Reading list:**

- Clinical Practice Guideline for Diagnostic Testing for Adult Obstructive Sleep Apnea
- Clinical Use of a Home Sleep Apnea Test: An American Academy of Sleep Medicine Position Statement
- Clinical Guidelines for the Manual Titration of Positive Airway Pressure in Patients with Obstructive Sleep Apnea

**Session III: Pediatric Sleep Related Breathing Disorders** January 13<sup>th</sup> 2023

*(Hiren Muzumdar)*

- Understand normal breathing in children compared to adults
- Understand the basics of how to approach a pediatric patient with sleep disturbances.
- Get familiarized with the common causes of pediatric sleep disordered breathing.
- Learn about central sleep apnea of infancy and pre-maturity.
- Overview of treatment options.

*Will include hands on experience with observing pediatric patient set up and exposure to different PAP devices. Medical Student will review scoring and interpretation of sleep studies with sleep provider.*

**Session IV: Parasomnias and other sleep disorders in children** Feb 3<sup>rd</sup> 2023

*(Deepa Burman)*

- Get familiarized with REM and NREM parasomnias
- Introduction to: sleep talking, sleep walking, enuresis, night terrors, etc.
- Recognize Restless Legs Syndrome and PLMD.
- An overview on circadian rhythm disorders
- Introduction to hypersomnia disorders: narcolepsy, IH, insufficient sleep

*Will include hands on experience with actigraphy on self*

**Session V: Insomnia; Sleep Health and Wellness; Interesting Cases in Sleep Medicine** Feb 10<sup>th</sup> 2023

*(Deepa Burman)*

- An introduction to insomnia
- Review interesting cases with videos
- Complete the American Academy of Sleep Medicine Sleep Health and Wellness Program

**Reading list:**

Testimonial: What it's like to be in Sleep Medicine: Shadowing Dr. Chervin

Testimonial: A Day in the Life of Dr. Skiba

**Course Evaluation**

Pretest on Sleep and Circadian Science and Sleep Disorders

Post test on Sleep and Circadian Science and Sleep Disorders

Evaluation of Course by Medical Students

**Virtual opportunities:**

Opportunity to participate in

Case conference and Didactic lectures every Monday 8 am to 10 am

Sleep and Circadian Science Grand rounds every Thursday 4 pm

## **FREE MEMBERSHIP**

To support the growth of the sleep medicine physician pipeline and develop tomorrow's leaders, the American Academy of Sleep Medicine (AASM) now offers free membership for students and residents. Membership will help students leverage the strength of the AASM community to learn from mentors, make connections, and sharpen their skills.

### Qualifications

Qualified students and residents include anyone in formal training, such as medical school, residency, a post-doctoral program, a master's degree program, a non-sleep medicine fellowship program, a PhD program, or similar program as approved by the Board of Directors. To complete their application, students will need to provide a letter of verification from a program director/registrar verifying their student status.

<https://aasm.org/professional-development/choose-sleep/free-student-resident-membership/>