

# **Professional Enrichment Course**

University of Pittsburgh School of Medicine Office of Medical Education

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# Intro to Otolaryngology Head and Neck Surgery

| Enrollment Period:  | Spring 2022  |
|---------------------|--|
| Course Dates:       | 2/1, 2/8, 2/15, 2/17, 2/24, 2/28 (3-5PM)   |
| Student Max:        | 10   |
| Class Year:         | MS1 and MS2  |
| Course Director:    | Melonie Nance, MD <u>nancema@upmc.edu</u>  |
| Admin Contact:      | Sarah Abernethy <u>abernethys@upmc.edu</u>   |
| Location:           | Multiple ENT Clinic Sites  |
| Registration:       | Via Amp Up during PEC enrollment period  |
| Course Description: | This mini-elective course will run for 1-2 hours each for 7 in-person sessions and an independently scheduled experiential learning experience. The major goal of this course is to provide a unique educational opportunity for first- and second-year medical students in the broad and diverse field of OTO-HNS. The course will be directed by attending surgeons and residents. Each week led by session director listed in parenthesis and other staff. We will have a mix of didactic sessions in the form of lectures and practical sessions. Each week, a new subspecialty of OTO-HNS will be highlighted. Students in small groups will be led in presenting a case to the entire group based on the weeks' theme. |
| Objectives:         | <ol> <li>To introduce students to the central discipline and subspecialties of Otolaryngology-head and neck surgery (OTO-HNS)</li> <li>To review and learn specific the anatomy/physiology of the head and neck</li> <li>To gain familiarity with the evaluation and management of common OTO-HNS pathologies</li> <li>Obtain hands-on practice of common procedures employed in OTO-HNS</li> <li>To facilitate involvement in research, foster interest in OTO-HNS and connect student to the UPMC Department of OTO-HNS</li> </ol>   |

| Pre-Requisites: | NONE             |
|-----------------|------------------|
| Requirements:   | NONE             |
| Texts:          | Will be provided |

## **Course Syllabus**

## Session 1: Intro/Overview (Nance)

- Orientation for the entire course
- Brief lecture overview on the field of otolaryngology and different specialties
- Anatomy Review/ Assignment
- Approach to the full in-depth H&N exam and focused history, pertinent review of systems
- Common radiologic modalities and interpretation of imaging
- Contemporary General Otolaryngology Practice Case Presentations
- Planning for students CASE presentation, groups present symptoms and talk through common cases at end of each subsequent section

#### Session 2: Otology/Neurotology (Perez)

- Introduction to the subspeciality Otology/Neurotology
- Review of temporal bone anatomy
- Common etiologies of hearing loss with associated diagnostic workup and management
- Common etiologies of balance disorders with associated diagnostic workup and management
- Audiogram Interpretation
- Otoscopic examination review and interpretation of tympanic membrane exam findings
- PRACTICAL exercises Temporal Bone Lab
  - Ear cleaning workshop
  - o Temporal drilling stations using cadaveric or 3D printed models
- CASE presentation by students

#### Session 3: Laryngology/Airway Management (Stinnett)

- Introduction to Upper aerodigestive anatomy
- Airway Management
  - Operative
  - Emergency Situations
  - o Chronic Problem Management
  - Laryngectomy vs. Tracheostomy
- Laryngology
  - Voice Swallowing Function
  - In Office evaluation
  - Operative Interventions
- · Practical exercises WISER center
  - Flexible laryngoscopy Simulations
  - Surgical Airway Simulation
- CASE Presentation by students

#### Session 4: Head and Neck Surgery (Duvvuri)

- Common etiologies for head and neck cancer
- Diagnostic workup
- Introduction treatment modalities
  - surgical resection and reconstructive
  - Radiation Oncology
  - Chemotherapy/Immunotherapy
- Multidisciplinary survivorship care in head and neck cancer
- · Practical exercises CREATES center
  - o · Robotic surgery simulators at Pittsburgh CREATES center
  - Microsurgery suturing workshop
- CASE presentation by students

#### Session 5: Rhinology/Sinus and Skull Base (Snyderman)

- Differentiate viral and bacterial rhinosinusitis
- Review sinus anatomy and be able to interpret sinus CT
- Common pathogens in sinusitis
- Medications used to treat sinus symptoms and discuss he inherent risk of antibiotic overuse
- Indications for and types of common nasal surgical procedures
- Know common causes of anosmia and hyposmia and appropriate evaluation techniques
- Epistaxis workup and management
- Indications for endonasal endoscopic approach to skull base surgery

- Practical exercises
  - o Rigid endonasal endoscope workshop
- CASE presentation by students

#### Session 6: Pediatric Otolaryngology/ Sleep Surgery (Jabbour)

- Importance of specific pediatric anatomy and congenital malformations
- Acute Illness/pathologies in pediatric ENT
- Chronic Illness/pathologies in pediatric ENT
- Common emergencies in pediatric ENT
- Common Surgical Procedures: Indications, Methods
- OSA in children and adults
- DISE examination introduction
- Practical Exercises
  - Tympanostomy tube placement simulation workshop
  - Otologic exam/diagnosis
- CASE presentation by students

#### Session 7: Closing/Wrap Up

- Debrief of clinical experiential experience in OR, clinic or on call
- Panel discussion and Q&A with MS4s, residents and attendings
  - o Applying and Matching into ENT
  - o Discussion on how students can get involved with ENT at Pitt
- Gather feedback about Mini-Elective

#### **OR observation/Call Shift**

- Students can individually schedule shadowing experiences in the operating room or clinic or take a night call shift with residents
- Students will be required to do a reflection write-up of their experience.