# Intro to Otolaryngology Head and Neck Surgery

<table>
<thead>
<tr>
<th><strong>Enrollment Period:</strong></th>
<th>Spring 2022</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Course Dates:</strong></td>
<td>2/1, 2/8, 2/15, 2/17, 2/24, 2/28 (3-5PM)</td>
</tr>
<tr>
<td><strong>Student Max:</strong></td>
<td>10</td>
</tr>
<tr>
<td><strong>Class Year:</strong></td>
<td>MS1 and MS2</td>
</tr>
<tr>
<td><strong>Course Director:</strong></td>
<td>Melonie Nance, MD <a href="mailto:nancema@upmc.edu">nancema@upmc.edu</a></td>
</tr>
<tr>
<td><strong>Admin Contact:</strong></td>
<td>Sarah Abernethy <a href="mailto:abernethys@upmc.edu">abernethys@upmc.edu</a></td>
</tr>
<tr>
<td><strong>Location:</strong></td>
<td>Multiple ENT Clinic Sites</td>
</tr>
<tr>
<td><strong>Registration:</strong></td>
<td>Via Amp Up during PEC enrollment period</td>
</tr>
<tr>
<td><strong>Course Description:</strong></td>
<td>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.</td>
</tr>
</tbody>
</table>
| **Objectives:**        | 1. To introduce students to the central discipline and subspecialties of Otolaryngology-head and neck surgery (OTO-HNS)  
2. To review and learn specific the anatomy/physiology of the head and neck  
3. To gain familiarity with the evaluation and management of common OTO-HNS pathologies  
4. Obtain hands-on practice of common procedures employed in OTO-HNS  
5. To facilitate involvement in research, foster interest in OTO-HNS and connect student to the UPMC Department of OTO-HNS |
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
  - 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
  - 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
  - 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 the 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
  o Tympanostomy tube placement simulation workshop
  o 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

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