

**Undergraduate Unit**  
**College of Medicine, King Saud University**  
**ORL Department, King Abdulaziz University Hospital**

Course Title (Symbol and Number)	<b>ORL Course 432</b>
Course Name	Otorhinolaryngology Course (Medical Students)
Credit hours	<p>4 = (1+3) hours</p> <p>Theoretical : 1</p> <p>Clinical: <u>3</u> (8:00 am to 4:30 pm)</p> <p><b>Total hours</b> 4 hours</p>

### **Course Description**

The Otorhinolaryngology course is a 5 weeks course for the fourth year Medical Students. It covers diseases of ear, nose, throat and head and neck. Anatomy, physiology, etiology, pathology, diagnosis, investigations, complications and different modalities of medical / surgical management will be discussed in details during the theoretical and the clinical parts

To accomplish the above goals, different formats are used throughout the course period.

Examples of the format that we used in our active lecture type teaching, clinical activities that include Clinic, Bed Side Teachings, Pre and Post Operation Rounds, Operative sessions, Communication and Swallowing Disorders and Audiology sessions.

There are 3 Cycles in the Course within the academic year, the 2 cycles for male and 1 cycle for Female students

1<sup>st</sup> Cycle (Male) – 1<sup>st</sup> Set  
– 2<sup>nd</sup> Set

1<sup>2nd</sup> Cycle (Female) – 1<sup>st</sup> Set  
– 2<sup>nd</sup> Set

3rd Cycle (Male) – 1<sup>st</sup> Set  
– 2<sup>nd</sup> Set

## **Course Objectives**

By the end of this course, students will be able to

- 1- Memorize the gross anatomy and physiology of external, middle and inner ear, nose and paranasal sinuses, Eustachian tube, head and neck, thyroid, larynx, facial nerve, pharynx and deep neck spaces, adenoid and tonsils, swallowing, hearing and balance.
- 2- Recognize pathophysiology, assessment and management of the following diseases/disorders
  - Eustachian tube dysfunction,
  - acute and chronic otitis media,
  - middle ear effusion, congenital of external ear, otitis externa,
  - congenital anomalies of the nose, acute and chronic rhinitis, allergic and non-allergic rhinitis, nasal polyps,
  - causes of vertigo (acute & chr. labyrinthitis, Meniere's disease, vestibular neuritis, positional vertigo, etc), investigation of a dizzy patient.
  - conductive hearing loss (causes and management), (otosclerosis in brief), Sensorineural hearing loss (congenital and acquired) presbycusis, management of SHNL (in brief) {hearing aids and cochlear implant in brief} mixed hearing loss,
  - otosclerosis, presbycusis,
  - neck masses, thyroid nodule, thyroid cancer, salivary gland infection and tumors, tumor of the oral cavity, Leukoplakia,
  - tumor of pharynx, nasopharyngeal cancer, oro and hypopharyngeal cancer, laryngeal papillomatosis,
  - swallowing disorders, GERD,
  - voice disorders, speech disorders,
  - trauma to auricle, traumatic perforation of tympanic membrane, foreign body in the ear, fracture temporal bone,
  - nose trauma, fracture nasal bone, septal hematoma and perforation, foreign body in the nose, blow-out fracture of the nose,
  - foreign body in the pharynx and esophagus, foreign body in the trachio-bronchial tree, congenital diseases of the larynx, laryngomalacia, laryngeal web, subglottic stenosis and hemangioma, benign swelling of larynx,
  - fungal sinusitis, sinusitis (classification, management & with special attention to orbital complications, investigation & general treatment), turbinate hypertrophy, nasal operations( FESS, septoplasty, turbinate surgery) ,
  - adenoid & tonsil diseases, complication-pharyngeal diseases (Quinsy, para&retropharyngeal, Ludwig's angina).
  - adenotonsillectomy (indications, compl&mnt), differential diagnosis of membranous tonsil.
  - causes of airway obstruction (congenital and acquired), and signs and symptoms.

- Facial nerve: anatomy (course and branches), causes of facial palsy (including Bell's palsy, middle ear complication, traumatic and Ramsay Hunt's syndrome)
  - investigations of airway obstruction, radiology illustration, medical and surgical treatment, operations (indication, procedure and complication) tracheostomy, cricothyroidectomy, intubation, choanal atresia repair.
  - Parotid mass, Submandibular gland mass, Hyperparathyroidism, Thyroglossal duct cyst, Branchial arch anomalies, Laryngocele, Hemangioma, Vascular malformation, Teratoma, Ranula, SCC nasal cavity, Nasopharyngeal carcinoma, Oropharyngeal carcinoma, Hypopharyngeal carcinoma, Cancer larynx, Lymphoma.
- 3- Demonstrate proficiency in history taking of ENT patients.
  - 4- Perform basic assessment using common tools in ENT clinic
  - 5- Interpret imagery test results related to ENT such as X-ray, CT-scan, MRI

### **Teaching Format**

1. Theoretical Part - Interactive Lectures
2. Practical and Clinical Parts - Clinic, Bed Side Teachings, Pre and Post Operation Rounds, Operative sessions, Communication and Swallowing Disorders and Audiology sessions.

### **Summary of Course Contents (over 5 weeks)**

#### **1. Theoretical Part –**

Compose of lectures covers the listed topics within the first 2 weeks of each set per cycle

CREDIT HOUR	TOPIC DESCRIPTIONS
1-hour	<b>ORIENTATION</b> <ul style="list-style-type: none"> <li>- orientation with the ORL Course 431 and the exams</li> <li>- brief history examination</li> </ul>
1-hour	<b>Ear I</b> <ul style="list-style-type: none"> <li>- anatomy physiology of the ear</li> <li>- cross anatomy of the external, middle and inner ears</li> <li>- brief nerve supply and earache</li> <li>- physiology of hearing (Eustachian in brief)</li> </ul>
1-hour	<b>Audiology</b> <ul style="list-style-type: none"> <li>- PTA, tympanometry and impedance (speech &amp; ABR in brief)</li> <li>- vestibular tests in brief</li> </ul>
1-hour	<b>Ear II</b> <ul style="list-style-type: none"> <li>- diseases of external ear and acute otitis media</li> <li>- congenital anomalies of the external ear (in brief), (protruding ear, preauricular Sinus microtia and atresia)</li> <li>- wax, ear wash</li> <li>- otitis externa (classification and management)</li> <li>- acute otitis media (in detail) and recurrent acute otitis media</li> </ul>
1-hour	<b>Ear III</b> <ul style="list-style-type: none"> <li>- chronic otitis media and middle ear operation</li> <li>- classification of chronic otitis media</li> <li>- Otitis Media Effusion, adhesive Otitis Media</li> <li>- Chronic suppurative otitis media - types and management</li> <li>- ear operation in brief (myringotomy, + tube, tympanoplasty and mastoidectomy)</li> </ul>
1-hour	<b>Ear IV</b> <ul style="list-style-type: none"> <li>- complication of acute and chronic otitis media</li> <li>- classification of extra cranial or intra cranial (in detail acute mastoidectomy and management)</li> </ul>
1-hour	<b>Deafness</b> <ul style="list-style-type: none"> <li>- conductive hearing loss (causes and management), (otosclerosis in brief)</li> <li>- sensorineural hearing loss (congenital and acquired), presbycusis, acute hemangioma</li> <li>- management of SHNL (in brief) {hearing aids and cochlear implant in brief}</li> </ul>
1-hour	<b>Vertigo</b> <ul style="list-style-type: none"> <li>- causes of vertigo (acute and chronic labyrinthitis, Meniere's disease, vestibular neuritis, positional vertigo, etc)</li> <li>- investigation of a dizzy patient (in short)</li> </ul>
	<b>Facial Nerve</b> <ul style="list-style-type: none"> <li>- anatomy (course and branches)</li> <li>- causes of facial palsy (including Bell's or middle ear complication, traumatic or Ramsay Hunt's syndrome)</li> </ul>
1 hour	<b>Nose I</b> <ul style="list-style-type: none"> <li>- anatomy and physiology of the nose and paranasal sinuses</li> <li>- anatomy of the external nose and nasal cavity, paranasal sinuses (blood supply, {nerve supply} in brief)</li> <li>- function of the nose and paranasal sinus</li> <li>- congenital anomalies (in brief) {choanal atresia}</li> </ul>

CREDIT HOUR	TOPIC DESCRIPTIONS
1 hour	<b>Nose II</b> <ul style="list-style-type: none"> <li>- acute and chronic rhinitis</li> <li>- allergic and non-allergic rhinitis</li> <li>- vestibular and furunculosis</li> <li>- nasal polyps (allergic and antrochoanal)</li> <li>- radiology illustration (e.g. CT scan)</li> </ul>
1 hour	<b>Nose III</b> <ul style="list-style-type: none"> <li>- acute and chronic sinusitis (causes, clinical, and management)</li> <li>- fungal sinusitis (in brief)</li> <li>- complication of sinusitis (classification, management and with special attention to the orbital complications, investigation and general treatment)</li> <li>- radiology illustration</li> </ul>
1-hour	<b>Nose IV</b> <ul style="list-style-type: none"> <li>- diseases of the nasal septum (DNS etc.)</li> <li>- epistaxis (causes, clinical and management)</li> <li>- turbinate hypertrophy</li> <li>- nasal septum, FESS, septoplasty, turbinate surgery</li> </ul>
1 hour	<b>Pharynx I</b> <ul style="list-style-type: none"> <li>- anatomy of the pharynx and in brief -deep spaces (retro and parapharyngeal)</li> <li>- physiology (in brief) and function of pharynx</li> <li>- acute and chronic pharyngitis (specific and non-specific) e.g scarlet fever, infectious monoliasis, fungal, Vincent angina, diphtheria</li> <li>- Zenker diverticulation (in brief)</li> </ul>
1 hour	<b>Pharynx II</b> <ul style="list-style-type: none"> <li>- adenoid and tonsil diseases, tonsil (in brief)</li> <li>- complication of pharyngeal diseases (Quinsy, para and retropharyngeal, Ludwig's angina) + Radiological illustrations)</li> <li>adenotonsillectomy (indications, complication and management)</li> <li>- differential diagnosis of membranous tonsil. ( in brief)</li> </ul>
1 hour	<b>Larynx I</b> <ul style="list-style-type: none"> <li>- anatomy and physiology of the larynx</li> <li>- gross anatomy and blood and nerve supply</li> <li>- congenital diseases of the larynx ( in brief) (laryngomalacia, web, subglottic stenosis, and hemangioma)</li> <li>- benign swelling of larynx (Singer's nodule, polyps, granuloma, J. L. papillomatosis)</li> </ul>
1 hour	<b>Larynx II</b> <ul style="list-style-type: none"> <li>- acute and chronic laryngitis</li> <li>- non-specific laryngitis</li> <li>- specific laryngitis (acute epiglottitis, croup)</li> <li>- laryngeal paralysis (unilateral and bilateral)</li> </ul>
1-hour	<b>Communication and Swallowing I</b> <ul style="list-style-type: none"> <li>- physiology of swallowing</li> <li>- swallowing disorders</li> <li>- GERD</li> </ul>
1 hour	<b>Communication and Swallowing II</b> <ul style="list-style-type: none"> <li>- voice disorder</li> <li>- language disorder</li> <li>- speech disorder</li> </ul>

1 hour	<b>Airway Obstruction</b> <ul style="list-style-type: none"> <li>- causes of airway obstruction (congenital and acquired)</li> <li>- signs and symptoms</li> </ul>
1 hour	<b>Airway Obstruction II</b> <ul style="list-style-type: none"> <li>- investigation of airway obstruction</li> <li>- radiology illustration</li> <li>- medical and surgical treatment</li> <li>- operation - indication, procedure (in brief) {complication, tracheostomy, cricothyroidectomy, intubation, choanal atresia repair etc..}</li> </ul>
1 hour	<b>Head and Neck I</b> <ul style="list-style-type: none"> <li>- A) Neck masses introduction, anatomy, diagnosis, differential diagnosis, some examples</li> <li>- B) Thyroid anatomy, thyroid nodule evaluation, thyroid cancer surgery and complications</li> </ul>
1 hour	<b>Head and Neck II</b> <ul style="list-style-type: none"> <li>- A) Salivary glands anatomy, physiology (in brief) - infection, autoimmune and tumours</li> <li>- B) Tumour of oral cavity Introduction Pre-malignant lesion, Leukoplakia etc. malignant lesion , SCCA</li> </ul>
1 hour	<b>Head and Neck III</b> <ul style="list-style-type: none"> <li>- A) Tumour of pharynx Nasopharyngeal carcinoma Oro &amp; hypopharyngeal carcinoma</li> <li>- B) Tumour of larynx Introduction laryngeal papillomatosis carcinoma larynx</li> </ul>
1-hour	<b>Trauma and FB I</b> <ul style="list-style-type: none"> <li>- trauma auricle (laceration and hematoma)</li> <li>- traumatic perforation of tympanic membrane</li> <li>- F.B. <b>ear</b></li> <li>- fracture temporal bone</li> <li>- trauma to the nose, fracture nasal bone</li> <li>- septal hematoma</li> <li>- septal perforation</li> <li>- F.B. nose</li> <li>- blow-out fracture</li> <li>- all with (radiological illustrations)</li> </ul>
1-hour	<b>Trauma and FB II</b> <ul style="list-style-type: none"> <li>- F.B. pharynx and esophagus</li> <li>- perforation of esophagus</li> <li>- trauma to larynx (in brief)</li> <li>- F.B. tracheo-bronchial tree</li> <li>- Radiological illustration</li> </ul>

## 2. Practical and/or Clinical Part:

Students will be divided into to 2 main Groups alternating between the ENT and the Ophthalmology Departments. Each group will be further subdivided into 6 sub-groups for the purposes of clinical assignments. Each sub-group will rotate through the following clinical areas

### Clinic

To see the different presentation of variety of diseases in the field of ENT, conduct history taking and examinations. They will observe minor procedures and see post-operative patients.

- a) Pre and Post-Operative Rounds
- b) Operative sessions to see common surgical procedures, and special instruments used in surgical field.
- c) Audiology

They will attend and discuss various audiological and vestibular tests used to evaluate hearing balance disorders.

- d) Communication and Swallowing Disorder (Speech Therapy) sessions

To see different speech, language and voice problems, their evaluation and management

## Clinical Activities

DAY	DATE	CLINIC				PRE Op	POST Op	OR	CSDU	AUDIO	CLINIC				PRE-OP	OR	CSDU	AUDIO	GROUP
		1	2	3	4						1	2	3	4					
SUN																			
MON																			
TUE																			
WED						Lectures													
THUR																			
SUN																			
MON																			
TUE																			
WED																			
THUR																			
SUN		C	D	E	F			A		B	A	C	E	D	F	B		GROUP I  1st WEEK	
MON		E	D	B				C	A/F		B	F	C		E	D	A		
TUE		B	C	F	A		D	E			A	C	B	E		F			
WED		D				A	C/B		B/C/E										
THUR		D	F	A							F	A	B	E	C		D		
SUN		C	D	E	F			A		B	A	C	E	D	F	B		GROUP II  1st WEEK	
MON		E	D	B				C	A/F		B	F	D		E	D	A		
TUE		B	C	F	A		D	E			E	C	B			F			
WED		D				A	C/B												
THUR		D	F	A					B/C/E		F	A	B	E	C		D		
SUN		E	F	D	B/A					C	E	B	A	C	D		F	GROUP II 2 <sup>nd</sup> WEEK	
MON		C	A	B	F				D		B	D			F		E		
TUE		E	F	D	A					C	E	B	A	C	D		F	GROUP II 2 <sup>nd</sup> WEEK	
WED																			
THUR		A/C	F	B					DE		D	B			F		E		
THUR	EXAM WRITTEN																		
WED	EXAM ORAL																		



## **ORL - Department Staff**

### **A. OTOLARYNGOLOGY**

<b>NAME OF STAFF</b>	<b>ACADEMIC TITLE / POSTION</b>	<b>Sub-specialty(ies)</b>
DR. SAMI AL-HARETHY	Chairman Asst. Professor / Consultant	Facial Plastic Surgery
PROF. YOUSRY EL-SAYED	Professor / Consultant	General ORL
PROF. SAMEER BAFAQEEH	Professor / Consultant	Facial Plastic Surgery
PROF. SURAYIE AL-DOUSARY	Professor / Consultant	Rhinology
PROF. AHMED AL AMMAR	Professor / Consultant	Paediatric ORL
PROF. KHALID AL-MAZROU	Professor / Consultant	Paediatric ORL
PROF. FATIMA AL-ANAZY	Professor / Consultant	Allergy and Immunology
PROF. ABDULRAHMAN HAGR	Professor / Consultant	Oto-Neurotology Skull Base Surgery
PROF. ABDULRAHMAN ALSANOSI	Associate Professor / Consultant	Oto-Neurotology Skull Base Surgery
DR. AHMED. AL-ARFAJ	Associate Professor / Consultant	Facial Plastic Surgery
DR. KHALID AL MALKI	Associate Professor / Consultant	Communication and Swallowing Disorders
DR. KHALID AL-QAHTANI	Associate Professor / Consultant	Head and Neck Surgery and Oncology
DR. SALEH AL-DHAHRI	Asst. Professor / Consultant	Head & Neck Surgery and Oncology
DR. MANAL AL-BUKHARI	Asst. Professor / Consultant	PhonosurgeryLaryngology
DR. MOHAMMED AL-OULAH	Asst. Professor / Consultant	Rhinology
DR. MOHAMMED AL ESSA	Consultant/ Asst Professor	H &N Surgery Oncology
DR. SAAD AL SALEH	Asst. Professor / Consultant	Rhinology
Dr. FARID ALZAHrani	Asst. Professor / Consultant	Oto-Neurotology

DR. MASOODA ASHRAF	Consultant	General ORL
DR. ABDULAZIZ AL-SHAAWAN	Registrar	Communication &Swallowing
DR. OSAMA SABER	Registrar	
DR. MOHAMMED GAAFAR	Registrar	
DR. HAZEM ABDULWAHEED	Registrar	
<b>OTHER STAFF in SCHOLARSHIP GRANT</b>		
Dr. Saud Al Romiah	Canada	Rhinology
Dr . Abdulmajeed Al Zakzouk	France / Canada	Paedia ORL
Dr. Salman Al Habib	France / Canada	Otology
Dr. Badi Al Dousary	France / Canada	Facial Plastic Surgery
Dr. Abdulaziz Al Balaa	Germany	Otology
Dr. Nizar Hamed	Germany	Otology
Dr. Abdulaziz al Rashid	Canada	Head & Neck Surgery
Dr. Latifah Al Makhoshi	Canada	Genetics
Dr. Faisal Al Zahrani	Canada	Head & Neck Surgery
Dr. Samia Angari	USA	Masteral Degree
Dr. Dima Al Mutawah	USA	Genetics
Dr. Naif Al Fnais	Canada	Paedia ORL
Dr. Ahmed Al Sayed	Canada	Laryngology/Phonosurgery

## **B) COMMUNICATION AND SWALLOWING DISORDERS UNIT (CSDU)**

NAME OF STAFF	ACADEMIC TITLE / POSTION
DR. MOHAMMED AL FARAHAT	Supervisor, Associate Professor / Consultant
DR. TAMER MUSSALEM	Associate Professor / Consultant
DR. RASHA AL SHOIEB	Consultant
MS. HANAN AL ZAHRANI	Speech Language Pathologist
MS. TAHANI AL OTAIBI	Speech Language Pathologist
MS. HADEEL AL MEDAINY	Speech Language Pathologist
MS. AYNAL MASSED	Speech Language Pathologist
MS. SARA AL HAMED	Speech Language Pathologist
MS. ASSEL AL SWAT	Speech Language Pathologist
MS. NOJUD AL DAKKAN	Speech Language Pathologist
MS. RAWAN HUDIEB	Speech Language Pathologist
MR. ABDULRAHMAN ASHOUR	Speech Language Pathologist
MR. ABDULRAHMAN AL MALKI	Speech Language Pathologist
MS. RAWAND AL OTAIBI	Psychologist
MS. HANIN KHURMI	Psychologist
MR. NASMI AL RASHEDY	Psychologist

### **C) AUDIOLOGY AND BALANCE DISORDERS UNIT (ABDU )**

NAME OF STAFF	ACADEMIC TITLE / POSTION
DR. MURAD AL MOMANI	Supervisor- Asst Professor / Consultant
DR. OSAMA HAMED	Senior Auidologist
MS. EBA SHUBAIR	Audiologist
MS. NOURA SHAHADA	Audiologist
MS. MASHAEL AL FAIZ	Audiologist
MS. SUNDUS BASVIADAN	Audiologist
MS. AMANI AL QAMRI	Audiologist
MS. JAWAHIR AL SHALNA	Audiologist
MS. ARWA AL-SHALAWI	Audiologist
MS. SUMAYA AL ANAZI	Audiologist

#### **RECOMMENDED TEXTBOOKS:**

1. Ear, Nose and Throat (New Edition) By: W. Becker (published by hieme)
2. Lecture Notes of Diseases of Ear, Nose and Throat (New Edition) By: P. Bull (published by Blackwell Science)

#### **References**

1. Diseases of the ENT, Head and Neck Surgery by Ballenger
2. ORL and HN Surgery by Clinning, et al.
3. Scott-Brown's Diseases of Ear, Nose and Throat by Allan Kerr
4. PBL in ENT by Abdulrahman Hagr

## **Examinations and Distribution of Marks**

There are 3 format of examinations

- 1 Clinical Assessment (**10 Marks**)
- 2 Written Examination / Continuous Assessment Examination
  - a. Multiple Choice Questions (MCQ) with 20 items having (**30 Marks**)

Student has to choose the best answer, no true or false type of question. There is no negative marks in this examination and carry 1.5 mark per question.

- b. Short Answer Question (SAQ) with **40 items**

This is a short clinical based scenario question where student has to give his/her ideal short answer

Compose of 20-item questions that carries 2 marks in each question

- 3 Objective Structured Clinical Examination (OSCE) with **20 mark**

Students' clinical knowledge will be assessed – taking the history, physical / clinical examination to the patient (simulator)

### **Students' opinion and/or feedback**

Students are advised to put their feedback or suggestion or any complaint in writing and address this/these to the Undergraduate Director or the Department Head himself through his secretary +966-11-4786100 extn 1429, 1443), KAUH, Building 1, Level 4. ENT Undergraduate Office

### **Course Development & Examination Committee**

<b>Name</b>	<b>Title</b>	<b>Position</b>
Dr. Murad Al Momani	Asst. Professor	Consultant Chairman/Director Undergraduate Unit
Prof. Yousry El-Sayed	Professor	Consultant UG Exam. Comm. Member
Dr. Mohammed Farahat	Associate Professor	Consultant UG Exam. Comm. Member
Dr. Ahmed Al Arfaj	Associate Professor	Consultant UG Exam. Comm. Member
Prof. Sameer Bafaqeeh	Professor	Consultant UG Exam. Comm. Member
Dr. Saad Al-Saleh	Assistant Professor	Consultant UG Exam. Comm. Member