



PROGRAM SPECIFICATION

Faculty of Medicine- Mansoura University

(A) Administrative information

(1) Program Title & Code	Postgraduate Master degree of Otorhinolaryngology/ ENT 500
(2) Final award/degree	M.Sc.
(3) Department (s)	Otorhinolaryngology Department
(4) Coordinator	Prof. Dr. Asser Abdel Raouf EL-Sharkawy Professor of Otorhinolaryngology - Faculty of Medicine-Mansoura University.
(5) External evaluator (s)	Prof.Dr. Ahmed Samy Elgendy Professor of Otorhinolaryngology - Tanta University.
(6) Date of approval by the Department`s council	14/5/2016
(7) Date of last approval of program specification by Faculty council	9/8/2016

(B) Professional information

Otorhinolaryngology is the medical specialty for Ear, Nose & Throat disorders, concerned with diseases and disorders of voice, speech respiration, and hearing (in so far as hearing impairment has its effects on any of the areas previously mentioned) and swallowing, Ear and Nose.

The specialty is based on the anatomical, physiological, diagnostic and therapeutic principles of Otorhinolaryngology and also on other medical disciplines (e.g. neurology, psychiatrics, pediatrics, dentistry, orthodontics) and non-medical sciences (e.g. linguistics, phonetics, psychology, behavior sciences, pedagogics, acoustics, communication sciences).

(1) Program Aims.

The broad aims of the Program are as follows:

- 1- The training program for ENT is designed to provide the candidate with the basic knowledge and skills necessary to be competent as to the whole of prophylaxis, diagnostics, therapeutics, rehabilitation, medical report, teaching and research, with reference to the diseases and disorders previously mentioned.
- 2- The training program will ensure that the candidate will be able to work with clients of all ages, including children and adults, and provide a variety of services skillfully in treatment centers, medical clinics, and in private practice.
- 3- The training program is carried out in a consistent and logical manner to make them adequately prepared to practice in research laboratories, community centers, colleges and universities, and state and federal agencies.
- 4- The final evaluation should reflect the candidate ability to practice competently and independently.
- 5- The candidate should recognize the ethical principles related to the practice in this specialty.
- 6- Maintenance of abilities necessary for continuous medical education.

(2) Intended Learning Outcomes (ILOs):

Intended learning outcomes (ILOs); Are four main categories: knowledge & understanding to be gained, intellectual qualities, professional/practical and transferable skills.

A- Knowledge and Understanding:

On successful completion of the program, the candidate will be able to:

A1. Enlarge the basic medical knowledge and made more thorough primarily by the study in detail of the anatomy, physiology and pathological physiology of the Ear, Nose and Throat.

A2. Comprehend the neurophysiological principles of the central encoding, decoding, memory and integration processes in speech, hearing, and swallowing.

A3. Know the genetic principles and the influence of the environment in the ORL diseases.

A4. Identify the developmental and aging processes as to ORL diseases.

A5. Acquire specific knowledge in the epidemiology, etiology, pathogenesis, prophylaxis, clinical physiology, diagnostics, differential diagnostics, therapeutics and rehabilitation of the ORL Diseases that include:

A5a. Ear Diseases.

A5b. Nose Diseases.

A5c. Diseases of the larynx.

A5d. Maxillofacial Trauma

A5e. Diseases of Salivary Glands

A6. Acquire specific knowledge in the epidemiology, etiology, pathogenesis, prophylaxis, clinical physiology, diagnostics, differential diagnostics, therapeutics and Ear disorders.

A6a. Congenital Ear disorders

A6b. Inflammatory disorders of the Ear

A6c. Midfacial Trauma

A6d. Neoplastic of the ear

A6E. Allergy of the Ear

A7. Acquire specific knowledge in the epidemiology, etiology, pathogenesis, prophylaxis, clinical physiology, diagnostics, differential diagnostics, therapeutics and Larynx disorders.

A7a. Congenital Larynx disorders

A7b. Inflammatory disorders of the Larynx

A7c. Larynx Trauma

A7. Neoplastic of the Larynx

A6E. Allergy of the Larynx

A8. Acquire specific knowledge in the epidemiology, etiology, pathogenesis, prophylaxis, clinical physiology, diagnostics, differential diagnostics, therapeutics and maxillofacial trauma.

A8a. Frontal fractures

A8b. Midfacial fractures

A8c. Mandibular fractures

A9. Acquire specific knowledge in the epidemiology, etiology, pathogenesis, prophylaxis, clinical physiology, diagnostics, differential diagnostics, therapeutics and rehabilitation of the swallowing disorders (Dysphagias) due to problems in the oral, and/or pharyngeal stages of swallowing (structural lesions, neurological disorders).

A10. Acquire selected knowledge from other disciplines (acoustics, electronics, phonetics, linguistics, pedagogics, psychology and behavior sciences) through attending of relevant basic science courses. This will form the starting point for the formation of a Phoniatrician and also the basis for interdisciplinary cooperation and to carryout research work.

A11. Acquire the basic knowledge for evaluating of children with outpatient health problems, disabilities and milestones delay.

A12. Acquire the basic knowledge in evaluating of psychiatric patients in the domain of phoniatics.

A13. Acquire the basic knowledge for interpreting a basic and computerized audiological report.

A14. Acquire teaching abilities relevant to disorders of voice, speech, language and swallowing in order to participate in planning and implantation of that field.

A15. Know the Legal and medicolegal aspects in practise of ORL disorders as well as medical ethics.

A16. Acquire basics and advanced knowledge of Endoscopic manibulation of Ear Nose and throat diseases

B- Intellectual skills :

- B1.** Outlines the therapeutic measures in the field of diseases of ORL, language and swallowing and applies them surgically, pharmacologically and behaviorally in order to be able to draw and perform the strategy of the therapy in the field efficiently.
- B2.** Collects complete, clear and organized information about the patient's ailments in order to be able to analyze it and formulate a preliminary idea concerning the etiological diagnosis of ailments.
- B3.** Analyses the speech (verbal) message of the patient concerning voice, phonology, semantic, syntax, and morphology in order to be able to describe precisely the type and degree of pathological aspects of communication.
- B4.** Analyses and relates the results of all different items of the battery of investigations in order to reach at an etiological diagnosis and possible differential diagnosis utilizing his/her theoretical background that draws charts for different groups of ailments in the field of otology.
- B5.** Outlines the role of pharmacological therapeutic agents in treatment of diseases of the nose and paranasal sinuses in order to be able to describe them when needed.
- B6.** Recognizes the methods of voice therapy in order to criticize the efficiency and pitfalls of each.
- B7.** Grasps the principles of behavior therapy in order to introduce efficiently these measures in the therapeutic programs given to patients.
- B8.** Grasps the principles of general language stimulation in order to be able to give efficient family guidance programs to help families that have children with delayed language development to participate efficiently in the therapeutic program.
- B9.** Grasps the principles of Endoscopic management of dysphasic patients in order to include it efficiently in the comprehensive rehabilitation program for these patients, including family guidance.
- B10.** Grasps the principles of surgical treatment for the hearing impaired patient in order to include it efficiently in the comprehensive program for rehabilitation of the hearing handicapped.

- B11.** Identifies the role of prosthetic devices and aids in the therapeutic program for diseases of voice, speech, language and swallowing in order to be able to use it efficiently when indicated.
- B12.** Acquaints himself with the methodology of scientific research in the field of voice, speech, language and swallowing disorders in order to carry out efficiently academic and field research work.
- B13.** Assess the developmental milestones of children and classify their different types of disabilities.
- B14.** Recognizes high risk children for disabilities and determine the degree of handicap.
- B15.** Determines the cause of the neurological deficit in the domain of phoniatic disorders and selects the proper investigation and interpretation of radiological findings (CT and MRI of the brain).
- B16.** Interprets the electroencephalogram (EEG), CT, MRI and PTA.
- B17.** Apply the TNM staging system in tumors of head and neck and formulate management plan accordingly.

C- Professional/practical skills.

- C1.** Examines patients with disorders of ENT and swallowing clinically and instrumentally and performs related formal tests on those patients in order to reach detailed etiological diagnosis and suggests prognosis.
- C2.** Examines the ear, nose, pharynx and larynx as well as the nervous system efficiently in order to detect organic changes and evaluate its significance and in order to associate between these signs and the symptomatology collected previously.
- C3.** Examines the larynx by means of stroboscope in order to study vocal fold's vibration during phonation and to detect the pathological picture of these vibrations and its significance.

C4. Performs the available standardized technique tests in order to draw a diagnostic profile for the various perceptual, affective, social, cognitive aptitudes as well as the performance abilities of the patients.

C5. Carries out the various measurements and investigations using the available instrumental diagnostic procedures in order to support the preliminary diagnosis objectively.

C6. Practices micro-laryngoscopy in order to be able to perform efficiently the necessary micro laryngeal surgical procedures on the vocal folds and the larynx in general.

C7. Practices rehabilitation methods for speakers' and singers' voice.

C8. Practices treatment methods for nasality.

C9. Practices treatment of the laryngectomized patients.

C10. Practices treatment methods in Ear diseases.

C11. Practices treatment of Nose diseases.

C12. Practices treatments of larynx diseases.

C13. Practices treatment and rehabilitation methods in pharyngeal diseases including dysphagias.

C14. Practice treatments of salivary gland diseases

C15. Practice treatments of maxillofacial fractures

C16. Practices habilitation for hard of hearing children, including auditory training and habilitation of cochlear implantee.

D- Communication & Transferable skills:

- D1.** Communicates effectively with patients, families, and the public, as appropriate, across a broad range of socioeconomic and cultural backgrounds.
- D2.** Cooperates with disciplines related to disorders of voice, speech, language and swallowing in order to participate in teamwork necessary for the proper management of those patients.
- D3.** Conveys his/her ideas to specialists in other disciplines in order to be able to function effectively in a group.
- D4.** Identifies the capacities and limitations of the other medical specialties participating with him/her in the clinical teams in order to be able to put effectively an integrated, realistic therapeutic program.
- D5.** Practices the activities of group interaction in order to be able participate efficiently in the activities of the clinical teams.
- D6.** Apply principles of medical ethics in dealing with patient information by keeping patient privacy and confidentiality even with multi-personnel accessibility to patient data.
- D7.** On the basis of the knowledge, competence, and skill he has acquired during his training, a phoniatician must also be prepared to fulfill the following important tasks:
- D7a. Medical report on vocational unfitness and disability.
 - D7b. Medical care for voice professions.
 - D7c. Collaboration in early detection of laryngeal malignancies.
 - D7d. Organization and guidance of phoniatic institutes.
 - D7e. Education of physicians and special needs professions.
 - D7f. Conditions to be fulfilled with respect to training centers and supervisors.
 - D7g. Coordinate the rehabilitation programs (physical therapy, occupational therapy, cognitive therapy.) for multi-handicapped children.

(3) Academic standards.

Academic standards for the program are attached in **Appendix I.** in which **NARS** issued by the National Authority for Quality Assurance & Accreditation in Education are used. External reference points/Benchmarks are attached in **Appendix II.**

3.a- External reference points/benchmarks are selected to confirm the appropriateness of the objectives, ILOs and structure of assessment of the program.

The program is structured according to education standards and training program provided by the Accreditation Council for Graduate Medical Education (ACGME).

<http://www.acgme.org/>

<http://www.acgme.org/Portals/0/PDFs/Milestones/OtolaryngologyMilestones.pdf?ver=2015-11-06-120524-560>

3.b- Comparison of the specification to the selected external reference/ benchmark.

1- All program aims of the Benchmarks are covered by the current program.

2- The program courses are matched by 90% degrees to those offered by the European universities except in the context of credit hours, and the durations of rotations in other specialties.

1. Knowledge and understanding.

Courses	ILOs	ARS	NARS
<p>-Surgical Anatomy & Embryology of ENT head & neck & chest</p> <p>-Applied Physiology of ENT</p> <p>-Genetics & Medical statistics</p> <p>-Pathology of ENT</p> <p>-Microbiology & Clinical Pathology</p> <p>-General Surgery related to ENT</p> <p>-Internal Medicine related to ENT</p> <p>-ENT: Otology</p> <p>-ENT: Rhinology</p> <p>-ENT: Throat</p> <p>-Basics of Audiology</p> <p>- Skull base surgery</p> <p>- Phonatory disorders</p> <p>- Head and neck imaging</p>	<p>A1, A2, A4, A5, A6, A7, A8, A9, A12</p>	<p>A1. Enlarge the basic medical knowledge and made more thorough primarily by the study in detail of the anatomy, physiology and pathological physiology of the Ear, Nose and Throat.</p> <p>A2. Comprehend the neurophysiological principles of the central encoding, decoding, memory and integration processes in speech, hearing, and swallowing.</p> <p>A4. Identify the developmental and aging processes as to ORL diseases.</p> <p>A5. Acquire specific knowledge in the epidemiology, etiology, pathogenesis, prophylaxis, clinical physiology, diagnostics, differential diagnostics, therapeutics and rehabilitation of the ORL Diseases that include:</p> <p>A5a. Ear Diseases.</p> <p>A5b. Nose Diseases.</p> <p>A5c. Diseases of the larynx.</p> <p>A5d. Maxillofacial Trauma</p> <p>A5e. Diseases of Salivary Glands</p> <p>A6. Acquire specific knowledge in the epidemiology, etiology, pathogenesis, prophylaxis, clinical physiology, diagnostics, differential diagnostics, therapeutics and Ear disorders.</p> <p>A6a. Congenital Ear disorders</p> <p>A6b. Inflammatory disorders of the Ear</p> <p>A6c. Midfacial Trauma</p>	<p>1) Theories, concepts and specialized knowledge of the learning area and also sciences appropriate to the professional practice.</p>

		<p>A6d. Neoplastic of the ear A6E. Allergy of the Ear</p> <p>A7. Acquire specific knowledge in the epidemiology, etiology, pathogenesis, prophylaxis, clinical physiology, diagnostics, differential diagnostics, therapeutics and Larynx disorders.</p> <p>A7a. Congenital Larynx disorders A7b. Inflammatory disorders of the Larynx A7c. Larynx Trauma A7. Neoplastic of the Larynx A6E. Allergy of the Larynx</p> <p>A8. Acquire specific knowledge in the epidemiology, etiology, pathogenesis, prophylaxis, clinical physiology, diagnostics, differential diagnostics, therapeutics and maxillofacial trauma.</p> <p>A8a. Frontal fractures A8b. Midfacial fractures A8c. Mandibular fractures</p> <p>A9. Acquire specific knowledge in the epidemiology, etiology, pathogenesis, prophylaxis, clinical physiology, diagnostics, differential diagnostics, therapeutics and rehabilitation of the swallowing disorders (Dysphagias) due to problems in the oral, and/or pharyngeal stages of swallowing (structural lesions, neurological disorders).</p> <p>A12. Acquire the basic knowledge in evaluating of psychiatric patients in the domain of phoniatrics.</p>	
<p>-Genetics & Medical statistics -ENT: Otology -ENT: Rhinology -ENT: Throat</p>	<p>A3</p>	<p>A3. Know the genetic principles and the influence of the environment in the ORL diseases.</p>	<p>2) Mutual influence between professional practice and its impacts on the environment.</p>

<p>-ENT: Throat -Basics of Audiology</p>	<p>A10, A11, A13</p>	<p>A10. Acquire selected knowledge from other disciplines (acoustics, electronics, phonetics, linguistics, pedagogics, psychology and behavior sciences) through attending of relevant basic science courses. This will form the starting point for the formation of a Phoniatician and also the basis for interdisciplinary cooperation and to carryout research work.</p> <p>A11. Acquire the basic knowledge for evaluating of children with outpatient health problems, disabilities and milestones delay.</p> <p>A13. Acquire the basic knowledge for interpreting a basic and computerized audiological report.</p>	<p>3) Scientific developments in the field of specialization</p>
<p>-Internal Medicine related to ENT -ENT: Otology -ENT: Rhinology</p>	<p>A15</p>	<p>A15. Know the Legal and medicolegal aspects in practise of ORL disorders as well as medical ethics.</p>	<p>4) Moral and legal ethics of the professional practice in the area of specialization.</p>
<p>-ENT: Otology -ENT: Rhinology</p>	<p>A16</p>	<p>A16. Acquire basics and advanced knowledge of Endoscopic manibulation of Ear Nose and throat diseases</p>	<p>5) The concepts and principles of quality of the professional practice in the area of specialization.</p>
<p>-ENT: Throat</p>	<p>A14</p>	<p>A14. Acquire teaching abilities relevant to disorders of voice, speech, language and swallowing in order to participate in planning and implantation of that field.</p>	<p>6) The basics and ethics of scientific research.</p>

2. Intellectual skills

Courses	ILOs	ARS	NARS
-ENT: Otology -ENT: Rhinology -ENT: Throat	B4, B13, B14, B15, B16, B17	<p>B4. Analyses and relates the results of all different items of the battery of investigations in order to reach at an etiological diagnosis and possible differential diagnosis utilizing his/her theoretical background that draws charts for different groups of ailments in the field of otology.</p> <p>B13. Assess the developmental milestones of children and classify their different types of disabilities.</p> <p>B14. Recognizes high risk children for disabilities and determine the degree of handicap.</p> <p>B15. Determines the cause of the neurological deficit in the domain of phoniatic disorders and selects the proper investigation and interpretation of radiological findings (CT and MRI of the brain).</p> <p>B16. Interprets the electroencephalogram (EEG), CT, MRI and PTA.</p> <p>B17. Apply the TNM staging system in tumors of head and neck and formulate management plan accordingly.</p>	1) Analyze and evaluate of information in the field of specialization and make full use of such information to solve problems.
-ENT: Rhinology -ENT: Throat - Skull base surgery - Phonatory disorders - Head and neck imaging	B1	<p>B1. Outlines the therapeutic measures in the field of diseases of ORL, language and swallowing and applies them surgically, pharmacologically and behaviorally in order to be able to draw and perform the strategy of the therapy in the field</p>	2) Solve specific problems on the basis of limited and contradictory information.

		efficiently.	
-ENT: Rhinology -ENT: Throat - Skull base surgery - Phonatory disorders - Head and neck imaging	B2, B3	B2. Collects complete, clear and organized information about the patient's ailments in order to be able to analyze it and formulate a preliminary idea concerning the etiological diagnosis of ailments. B3. Analyses the speech (verbal) message of the patient concerning voice, phonology, semantic, syntax, and morphology in order to be able to describe precisely the type and degree of pathological aspects of communication.	3) Demonstrate a high level of competence in the coordination of different sources of knowledge to solve professional problems..
-ENT: Throat	B12	B12. Acquaints himself with the methodology of scientific research in the field of voice, speech, language and swallowing disorders in order to carry out efficiently academic and field research work.	4) Carry out a research study and / or writing a scientific methodology study on research problem.
-ENT: Otology -ENT: Throat	B10	B10. Grasps the principles of surgical treatment for the hearing impaired patient in order to include it efficiently in the comprehensive program for rehabilitation of the hearing handicapped.	5) Assess and analyze risks of the professional practice in the field of specialization.
-ENT: Throat	B6, B7, B8, B11	B6. Recognizes the methods of voice therapy in order to criticize the efficiency and pitfalls of each. B7. Grasps the principles of behavior therapy in order to introduce efficiently these measures in the therapeutic programs given to patients. B8. Grasps the principles of general language stimulation in order to be able to give efficient family guidance programs to help families that have children with delayed language development to participate efficiently in the therapeutic	6) Plan to improve performance in the field of specialization

		<p>program.</p> <p>B11. Identifies the role of prosthetic devices and aids in the therapeutic program for diseases of voice, speech, language and swallowing in order to be able to use it efficiently when indicated.</p>	
<p>-ENT: Rhinology</p> <p>-ENT: Throat</p>	B5, B9	<p>B5. Outlines the role of pharmacological therapeutic agents in treatment of diseases of the nose and paranasal sinuses in order to be able to describe them when needed.</p> <p>B9. Grasps the principles of Endoscopic management of dysphasic patients in order to include it efficiently in the comprehensive rehabilitation program for these patients, including family guidance.</p>	7) Make career decisions in different professional aspects

3. Professional/practical skills

Courses	ILOs	ARS	NARS
<p>-ENT: Otology</p> <p>-ENT: Rhinology</p> <p>-ENT: Throat</p>	C6, C7, C8, C9, C10, C11, C12, C13, C14, C15, C16	<p>C6. Practices micro-laryngoscopy in order to be able to perform efficiently the necessary micro laryngeal surgical procedures on the vocal folds and the larynx in general.</p> <p>C7. Practices rehabilitation methods for speakers' and singers' voice. Practices treatment methods for nasality.</p> <p>C9. Practices treatment of the laryngectomized patients.</p> <p>C10. Practices treatment methods in Ear diseases.</p>	1) Apply modern and principle professional skills in the area of specialization.

		<p>C11. Practices treatment of Nose diseases.</p> <p>C12. Practices treatments of larynx diseases.</p> <p>C13. Practices treatment and rehabilitation methods in pharyngeal diseases including dysphagias.</p> <p>C14. Practice treatments of salivary gland diseases</p> <p>C15. Practice treatments of maxillofacial fractures</p> <p>C16. Practices habilitation for hard of hearing children, including auditory training and habilitation of cochlear implantee.</p>	
-ENT: Throat	C4, C5	<p>C4. Performs the available standardized technique tests in order to draw a diagnostic profile for the various perceptual, affective, social, cognitive aptitudes as well as the performance abilities of the patients.</p> <p>C5. Carries out the various measurements and investigations using the available instrumental diagnostic procedures in order to support the preliminary diagnosis objectively.</p>	2) Write and evaluate technical reports.
-ENT: Otology -ENT: Rhinology -ENT: Throat	C1, C2, C3	<p>C1. Examines patients with disorders of ENT and swallowing clinically and instrumentally and performs related formal tests on those patients in order to reach detailed etiological diagnosis and suggests prognosis.</p> <p>C2. Examines the ear, nose, pharynx and larynx as well as the nervous system efficiently in order to detect organic changes and evaluate its significance and</p>	3) Adopt assessment methods and tools existing in the area of specialization

		<p>in order to associate between these signs and the symptomatology collected previously.</p> <p>C3. Examines the larynx by means of stroboscope in order to study vocal fold's vibration during phonation and to detect the pathological picture of these vibrations and its significance.</p>	
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4. Communication & Transferable skills

Courses	ILOs	ARS	NARS
-General Surgery related to ENT -Internal Medicine related to ENT -ENT: Otology -ENT: Rhinology -ENT: Throat	D1, D6	<p>D1. Communicates effectively with patients, families, and the public, as appropriate, across a broad range of socioeconomic and cultural backgrounds.</p> <p>D6. Apply principles of medical ethics in dealing with patient information by keeping patient privacy and confidentiality even with multi-personnel accessibility to patient data.</p>	1) Communicate effectively in different aspects.
-ENT: Otology -ENT: Rhinology -ENT: Throat	D7	<p>D7. On the basis of the knowledge, competence, and skill he has acquired during his training, he must also be prepared to fulfill the following important tasks:</p> <p>D7a. Medical report on vocational unfitness and disability.</p> <p>D7b. Medical care for voice professions.</p> <p>D7c. Collaboration in early detection of laryngeal malignancies.</p>	2) Demonstrate efficient IT capabilities in such a way that serves in the development of the professional practice. 3) Adopt self-assessment and specify his needs of personal learning. 4) Use different resources for information and knowledge.

<p>-General Surgery related to ENT -Internal Medicine related to ENT -ENT: Otology -ENT: Rhinology -ENT: Throat</p>	<p>D2, D3, D4, D5</p>	<p>D2. Cooperates with disciplines related to disorders of voice, speech, language and swallowing in order to participate in teamwork necessary for the proper management of those patients.</p> <p>D3. Conveys his/her ideas to specialists in other disciplines in order to be able to function effectively in a group.</p> <p>D4. Identifies the capacities and limitations of the other medical specialties participating with him/her in the clinical teams in order to be able to put effectively an integrated, realistic therapeutic program.</p> <p>D5. Practices the activities of group interaction in order to be able participate efficiently in the activities of the clinical teams.</p>	<p>5) Establish rules and indicators for assessing the performance of others. 6) Collaborate effectively within multidisciplinary team and lead teams in different professional contexts. 7) Demonstrate a high level of competence in the time management.</p>
<p>-ENT: Otology -ENT: Rhinology -ENT: Throat</p>	<p>D7</p>	<p>D7. On the basis of the knowledge, competence, and skill he has acquired during his training, he must also be prepared to fulfill the following important tasks:</p> <p>D7a. Medical report on vocational unfitness and disability.</p> <p>D7b. Medical care for voice professions.</p> <p>D7c. Collaboration in early detection of laryngeal malignancies.</p>	<p>8) Continuous self-education.</p>

(4) Curriculum structure and contents.

4.a- Duration of the program (in years or months): 20 months

4.b- program structure.

* The program consists of two parts; the first part composed of seven courses which are: Surgical anatomy and Embryology of ENT head and neck & chest, applied physiology of ENT, Genetics & Medical Statistics, Pathology of ENT, Microbiology & Clinical pathology, General Surgery related to ENT and Medicine related to ENT.

The second part composed of three courses with three sub courses: ENT course, Basic of Audiology, Elective course that include skull base surgery, phonatory disorders, and head and neck imaging sub courses.

*Candidates should fulfill a total of **45 credit hours**.

●4.b.1: Number of credit hours (minimum):

First part: **5 credit hours**. Second part: **18 credit hours**. Activities included in the log book: **14+2=16 credit hours**. Thesis: **6 credit hours**.

●4.b.2: Teaching hours/week:

First part:

Lectures: 65 hours in 15 weeks

Clinical : (internal medicine and surgery): 40 hours in 15 weeks
(referred to the table below).

Second part:

Lectures: 270 hours in 45 weeks.

Clinical/practical. 420 hours in 45 weeks
(referred to the table below)

(5) Program courses:

First part (15 weeks duration over a period of 5 months):

a- Compulsory courses:

Course Title	Course Code	Credit hours	NO. of hours per week				Total teaching hours/15 wks	Program ILOs covered (REFERRING TO MATRIX)	
			Theoretical		clinical	Field			Total
			Lectures	seminars					
Surgical Anatomy & Embryology of ENT head & neck & chest	ENT 501	1	15	--	--	--	15	A1	
Applied Physiology of ENT	ENT 503	0.5	7.5	--	--	--	7.5	A1,	
Genetics & Medical statistics	ENT 509 ENT 518	0.5	7.5	--	--	--	7.5	A3, A6, A7	
Pathology of ENT	ENT 505	0.5	7.5	--	--	--	7.5	A1, A2, A6, A7, A8	
Microbiology & Clinical Pathology	ENT 507 ENT 530	0.5	7.5	--	--	--	7.5	A5, A6, A7	
General Surgery related to ENT	ENT 520	1	10	--	20	--	30	A7, A8, D1, D3, D5	
Internal Medicine related to ENT	510 ENT	1	10	--	20	--	30	A1,A15 D1,D3,D5	
							105		

b- Elective courses: None

Second part (45 weeks duration over a period of 15 months)

a- Compulsory courses

Course Title	Course Code	Credit hours	NO. of hours per week				Total teaching hours	Program ILOs covered (REFERRING TO MATRIX)	
			Theoretical		clinical	Field			Total
			Lectures	Semi-seminars					
ENT	ENT 524	16 hrs + 14 clinical		---		--		660 hrs	
- otology and neuro-otology	ENT 524(1)		4hrs x 15w		6hrs x 15w			300 hrs	A1,A2,A3, A4,A5,A6,A15,A16 B4,B10,B15, B16 C1,C2,C10 D1-7
-rhinology and anterior skull base	ENT 524(2)		4hrs x 15w		6hrs x 15w	-		300 hrs	A1,A2,A3, A8,A15,A16 B1,B2,B5, B15,B16 C1, C2. C11 D1-7
- Throat, head and neck surgery, facial plastic surgery	ENT 524(3)		8hrs x 15w		16hrs x 15w			460 hrs	A1, A2, A3, A4, A7,A8, A9, A10, A11, A12, A14 B1, B2, B3, B6-17 C1-15 D1-7
Basics of Audiology	ENT 524 BA	1 hrs	1hrs X 15w		-----	---		16 hrs	A13
B- Elective Courses - Skull base surgery - Phonatory disorders - Head and neck imaging	ENT 524 SBS ENT 524 PHD ENT 524 HNI	1 hrs	1hrs X 15w		-----	---		16 hrs	A1,A2 B1,B2
Log book	ENT 524C							14 +2 credit hrs	
Thesis								6 credit hrs.	

N.B.

- **2nd semester courses:** ENT 524(1) +ENT 524 BA
- **3rd semester courses:** ENT 524(2) ENT 524 SBS
- **4th semester courses:** ENT 524(3) + ENT 524 PHD + ENT 524 HNI

Program–Courses ILOs Matrix

Program ILOs are enlisted in the first row of the table (by their code number: a1, a2.....etc), then the course titles or codes are enlisted in first column, and an "x" mark is inserted where the respective course contributes to the achievement of the program ILOs in question.

Course Title/Code																																		
	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12	A13	A14	A15	A16	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	B13	B14	B15	B16	B17	
Surgical Anatomy & Embryology of ENT head & neck & chest	X																																	
Applied Physiology of ENT	X																																	
Genetics & Medical statistics			x			x	X																											
Pathology of ENT	x	x				x	x	X																										
Microbiology & Clinical Pathology					x	x	X																											
General Surgery related to ENT							x	X																										
Internal Medicine related to ENT	x															x																		
ENT:Otology	x	x	x	x	x	x									x	x			x							x						X		
ENT:Rhinology	x	x	x					x							x	x	x	x			x										x	X		
ENT:Throat	x	x	x	x			x	x	x	x	x	x		x				x	x	x		x	x	x	x	x	x	x	x	x	x	x	X	
Basics of Audiology													X																					
Elective Course - Skull base surgery - Phonatory disorders - Head and neck imaging	x	x																x	x															

Course Title/Code	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16	D1	D2	D3	D4	D5	D6	D7
	Surgical Anatomy & Embryology of ENT head & neck & chest																						
Applied Physiology of ENT																							
Genetics & Medical statistics																							
Pathology of ENT																							
Microbiology & Clinical Pathology																							
General Surgery related to ENT																	x		x		X		
Internal Medicine related to ENT																	x		x		x		
ENT:Otology	x	x								X							x	x	x	x	x	x	X
ENT:RhinoLOGY	x	x									X						x	x	x	x	x	X	x
ENT:Throat	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	X
Basics of Audiology																							
Elective Course - Skull base surgery - Phonatory disorders - Head and neck imaging																							

P.S. All courses' specifications are attached in [Appendix III](#).

Program aims - ILOs matrix (master Degree, Otorhinolaryngology)

Program aims	A 1	A 2	A 3	A 4	A 5	A 6	A 7	A 8	A 9	A 10	A 11	A 12	A 13	A 14	A 15	A 16	B 1	B 2	B 3	B 4	B 5	B 6	B 7	B 8	B 9	B 10	B 11	B 12	B 13	B 14	B 15	B 16	B 17	C 1	C 2	C 3	C 4	C 5	C 6	C 7	C 8	C 9	C 10	C 11	C 12	C 13	C 14	C 15	C 16	D 1	D 2	D 3	D 4	D 5	D 6	D 7																	
1- The training program for otorhinolaryngologist is designed to provide the candidate with the basic knowledge and skills necessary to be competent as to the whole of prophylaxis, diagnostics, therapeutics, rehabilitation, medical report, teaching and research, with reference to the diseases and disorders previously mentioned	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X																																									
2- The training program will ensure that the candidate will be able to work with clients of all ages, including children and adults, and provide a variety of services skillfully in rehabilitation centers, medical clinics, and in private practice.																	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X																								
3- The training program is carried out in a consistent and logical manner to make them adequately prepared to practice in research laboratories, community centers, colleges and universities, and state and federal agencies.																																																		X	X	X	X	X	X	X																	
4- The final evaluation should reflect the candidate ability to practice competently and independently																																					X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X																
5- The candidate should recognize the ethical principles related to the practice in this specialty.														X																																																							X				
6- Maintenance of abilities necessary for continuous medical education.																																																									X	X	X	X	X	X	X										

(1) Program admission requirements.

● **General requirements.**

According to the postgraduate by laws. **Appendix IV.**

● **Specific requirements (if applicable): NONE**

(2) Regulations for progression and program completion.

● Student must complete minimum of 45 credit hours in order to obtain the master degree, which include the courses of first and second parts, thesis and activities of the log book and pass the final exam (written, oral, clinical) at the end of the first and second parts.

● Courses descriptions are included in **Appendix III.**

● Registration for the Master is allowed 6 months from the day of registration to the program and must fulfill a total of 8 credit hours including material collection, clinical/practical work, patients follow-up, and meetings with supervisors.

Log book fulfillment.

● Student must fulfill a minimum of 15 credit of log book activities including clinical training in the form of residency period, clinical rotation in other specialties, clinical/practical work and conferences attendance or speaking.

● Lectures and seminars must be documented in the log book and signed by the lecturer.

● Works related to thesis must be documented in the log book and signed by the supervisors.

● Any workshops, conferences and scientific meetings should be included in the log book.

Final Exam.:
First part:

إجمالي	الدرجة				الاختبار	المقرر
	إكلينيكي	شفهي	MCQ	تحريري		
٣٠٠	--	١٢٠	٣٦	١٤٤	اختبار تحريري مدته ثلاث ساعات + اختبار شفهي	التشريح الجراحي والنمو الجنيني
١٥٠	--	٦٠	١٨	٧٢	ختبار تحريري مدته ساعة ونصف + اختبار شفهي	الفسولوجيا
١٥٠	--	٦٠	١٨	٧٢	ختبار تحريري مدته ساعة ونصف + اختبار شفهي	مبادئ علم الوراثة والاحصاء الطبي
١٥٠	--	٦٠	١٨	٧٢	ختبار تحريري مدته ساعة ونصف + اختبار شفهي	الباثولوجيا
١٥٠	--	٦٠	١٨	٧٢	ختبار تحريري مدته ساعة ونصف + اختبار شفهي	الميكروبيولوجيا والباثولوجيا الاكلينيكية
٣٠٠	٦٠	٦٠	٣٦	١٤٤	اختبار تحريري مدته ثلاث ساعات + اختبار شفهي + اختبار اكلينيكي	الجراحة المتعلقة بالأذن والأنف والحنجرة
٣٠٠	٦٠	٦٠	٣٦	١٤٤	اختبار تحريري مدته ثلاث ساعات + اختبار شفهي + اختبار اكلينيكي	الأمراض الباطنة المتعلقة بالأذن والأنف والحنجرة
١٥٠٠	إجمالي الدرجة					

Second Part:

إجمالي	الدرجة					الاختبار	المقرر
	إكلينيكي	إكلينيكي	شفهي	MCQ	تحريري		
٦٠٠	١٠٠	١٠٠	١٠٠	٣٠+٣٠	+١٢٠ ١٢٠	اختباران تحريريان مدة كل منهما ثلاث ساعات + اختبار شفهي + اختبار اكلينيكي + اختبار عملي (عمليات)	أمراض الأذن والأنف والحنجرة
١٠٠	--	--	٥٠	١٠	٤٠	ختبار تحريري مدته ساعة + اختبار شفهي	أساسيات علم السمعيات
١٠٠	--	--	٥٠	١٠	٤٠	ختبار تحريري مدته ساعة + اختبار شفهي	اختبار الاختيارى
٨٠٠	إجمالي الدرجة						

Assessment methods:

- 5.1: Written exam for assessment of knowledge and intellectual skills.
- 5.2: MCQ exam for assessment of knowledge and intellectual skills.
- 5.3: Oral exam for assessment of knowledge and intellectual skills.

5.4: clinical exam for assessment of professional, practical and transferrable skills.

5.5: operative exam for assessment of professional, practical and transferrable skills.

Evaluation of Program's intended learning outcomes (ILOs):

Evaluator	Tools*	Signature
Internal evaluator (s) Prof. Dr. Ahmed Degwi	Focus group E_mail Group discussion	
External Evaluator (s) Prof.Dr. Ahmed Samy Elgendy Tanta University	E_mail Interview checklist	
Senior student (s)	none	
Alumni	none	
Stakeholder (s)	none	
others	none	

* TOOLS= QUESTIONNAIRE, INTERVIEW, WORKSHOP, COMMUNICATION, E_MAIL

We certify that all information required to deliver this program is contained in the above specification and will be implemented. All course specifications for this program are in place.

Program coordinator: Name: Prof. Dr. Ahmed El-Degwi	Signature & date:
Dean: Name: Prof. Dr. Elsaeed Abdelhady	Signature & date:
Executive director of the quality assurance unit: Name: Prof. Dr. Seham Gad El-hak	Signature & date: