



## **Program Specification for Master Degree: Phoniatics**

**Program type: Single**

**Department offering the program: Phoniatic Unit, Otolaryngology Department**

**Program Code: PHON**

**Total credit points: 153**

**Academic year: 2015/2016**

**Date of Approval: July 2015**

**Program Coordinator: Professor Dr Dalia Mostafa Osman**

**External evaluator: Professor Dr Mohamed Saad Baraka, Professor of Phoniatics, Ain Shams University**

### **I. Program aims**

The program is a professional degree that enables candidates to specialize in the area of Phoniatic diseases including all communication disorders; speech, language, voice disorders as well as communication related disorders such as swallowing disorders, learning disabilities, and dyslexia. The candidates should achieve satisfactory levels of basic knowledge and clinical skills in all aspects related to communication and communication-related disorders. Candidates should achieve all these skills with respect to ethical values according to community culture. The program also aims at promoting the candidates' team standards and their ability to work and participate collaboratively within a multi-disciplinary team work. The program also aims to introduce the candidate to the basics of scientific medical research.

### **II. Intended learning outcomes of program (ILOs)**

#### **A. Knowledge and understanding: By the end of the program the candidate should;**

- 1-Recognize the basic scientific knowledge regarding Anatomy related to speech, language, and voice pathology as well as communication-related disorders as swallowing disorders and learning difficulties.
- 2-Identify and discuss common problems related to speech, voice, and language pathology based on normal physiological functions and current as well as recent theories.
- 3-Describe basic knowledge of sound and electro acoustics
- 4-Discuss the genetic basics related to various communication disorders
- 5 Identify all language parameters, their development, various speech sounds, and cognitive as well as language development
- 6-Determine basic concepts of assessment and evaluation tools related to language, speech, voice, learning, and swallowing disorders.

7-Describe different management modalities – counseling, therapeutic, and surgical interventions- for common communication disorders

8-Describe common and essential basics for statistical studies necessary for carrying out a scientific research work

9-Determine normal personality development, attention, cognition, thought

10-Discriminated different tools used for Psychometric and audiological evaluation

11-Differentiate various Ear, Nose, Pharyngeal, and Laryngeal diseases

12-Recognize neurological and psychiatric diseases related to Phoniatics

**B. Intellectual skills: By the end of the program the candidate should be able to**

1. Analyze symptoms & signs and construct a differential diagnosis for various Phoniatic complaints
2. Design an appropriate diagnostic plan for evaluation of common communication disorders taking into consideration the nature of the clinical situation and the risks, benefits and costs to the patient.
3. Interpret the results of different investigations related to speech, language, voice, learning, and swallowing difficulties.
4. Set up treatment plans for various communication as well communication-related disorders taking into consideration the cultural and individual needs.
5. Develop basic surgical skills and common surgical complications related to Phoniatics.

**C. Professional and practical skills: By the end of the program the candidates should be able to:**

- 1-Collect clinical data specially history taking and initial interview for all Phoniatic, neurological as well as psychological diseases related to communication disorders.
- 2-Evaluate and identify different communication disorders.
- 3-Perform office clinical procedures related to speech and voice disorders.
- 4-Design appropriate therapeutic intervention plans and phoniatic rehabilitation programs for various communication disorders.
- 5-Offer proper therapy related to various Phoniatic diseases.
- 6-Proper examination of the nose, larynx, and ear using various clinical examination tools among which are endoscopic, mirror, and microscopic laryngeal and nasopharyngeal examinations.
- 7-Offer interventions whenever indicated to patients having voice disorders

**D. General and transferable skills: By the end of the program the candidates should be able to;**

1. Communicate with the patients and parents to gain their confidence.
2. Respond effectively to a patient's and parents' emotional and psychosocial concerns
3. Communicate with other members of the health care providers.
4. Appreciate team work.

5. Achieve Computer skills necessary to make use of medical data bases and use the internet for communication.
6. Show administrative skills that enables the candidates to fulfill the paper work needed
7. Show leadership skills that enable the candidate to organize work and lead the junior as well as paramedical staff.
8. Understand different scientific methodologies and have critical reading abilities
9. Write scientific article according to the basics of scientific research.

### III. Academic standards.

**1-Academic Reference standards:** The academic standards of Phoniatics program is adopted and accredited by the department council

**2-External references for standards:**

International association of Logopedics and Phoniaticians (IALP)

Union of European Phoniaticians (UEP)

Communication Disorders and Speech Pathology Schools in Florida

(<http://www.edref.com/college-degrees/health-care/communication-disorders-and-speech-pathology/Florida>)

### IV. Program admission requirements.

According the Faculty of Medicine, Cairo University By laws for Post Graduate Programs (July 2009), applicants should have MBCh. or equivalent degree. According to Cairo University requirements, all applicants for postgraduate studies should fulfill preliminary courses on the following subjects; Medical statistics I – English language (Toefl or equivalent degree) – Computer skills (ICDL) or equivalent computer course offered by the medical education center (MEDC). Admission to the program is open during July. Training prior to registration may be accredited according to departmental and hospital evaluation. Admission for the program is open during July.

### V. Program structure and contents.

**Program duration:** Three years.

**Program structure:** Total Credit points 153

- **First part: 1.5 years - Total credit points 54 - (Table 1)**
- **Compulsory courses: (Total credit points of 11)**
  - Anatomy and Embryology (PHON 801) 2 credit points
  - Theories of language, speech, and voice production (PHON830 TLS) 2 credit points
  - Linguistics (PHON 830 LIN) 3 credit points
  - Genetics (PHON 813) 0.5 credit points

- Statistics (PHON 809) 0.5 credit points
- Electro acoustics (PHON 830 EA) 1 credit point
- Psychology (PHON 817) 2 credit points
- Elective courses (the candidate courses two courses only) 1 credit point
- Scientific activities 2 credit points
- Residency training program:  
“Basic Phoniatic Evaluation & Management” for one and half year 40 credit points  
One year must be spent in General Medicine .
- **Second part: 1.5 years - Total credit points 79 - (Table 2)**
  - Compulsory courses; one academic year (30 weeks)
    - Phoniatrics (PHON 830) PHN 12 credit points
    - Audiology (PHON 830) AUDI 1 credit point
    - Basics of E.N.T(PHON 830) ENT 2 credit points
    - Neurology (PHON 830) NEU 2 credit points
    - Psychiatry (PHON 830) PSC 2 credit points
  - Scientific activities 3 credit points
  - Residency training program Part 2: PHON 830) for two years 57 credit points
- **Master Thesis:** completed during second part 20 credit points  
(Supervised by ENT staff and discussed before taking the second part exam)

**Table 1: First part**

Courses	Course modules	Credit points	total	ILOs
<b>Compulsory courses (One academic year)</b>				
Anatomy and Embryology	<u><b>Embryology</b></u> <ul style="list-style-type: none"> <li>● Branchial system</li> <li>● Development of the face, nose, and palate</li> <li>● Development of the larynx &amp; Pharynx</li> </ul> <u><b>Anatomy:</b></u> <ul style="list-style-type: none"> <li>● Larynx</li> <li>● Mouth cavity</li> <li>● Palate</li> <li>● Pharynx</li> <li>● Nose, nasal cavity and paranasal</li> </ul>		2	A-1, A-7, C-6, C-8, D1:9

	<p>sinuses</p> <ul style="list-style-type: none"> <li>• Ear</li> <li>• Trachea</li> </ul> <p><b><u>Neuroanatomy</u></b></p> <ul style="list-style-type: none"> <li>• Cranial nerves</li> <li>• Anatomy of the brain</li> </ul>			
Theories of Language, Speech and Voice Production	<p><b><u>Language:</u></b></p> <ul style="list-style-type: none"> <li>-Language organization in the brain</li> <li>-Studies of cerebral dominance</li> <li>-Hierarchy of motor organization</li> <li>-Physiology of hearing</li> </ul> <p><b><u>Speech:</u></b></p> <ul style="list-style-type: none"> <li>-Respiration as a power supply for speech production</li> <li>-Articulation</li> <li>-Resonance</li> <li>-Reception of speech</li> </ul> <p><b><u>Voice:</u></b></p> <ul style="list-style-type: none"> <li>-Respiration for phonation</li> <li>-Voice production</li> <li>-Pitch &amp; Intensity control</li> <li>-Assessment of voice</li> </ul> <p>• <b><u>Physiology of swallowing</u></b></p>		2	A-2, C-8, B-1 D1:8
Linguistics	<p>Acoustic phonetics  Articulatory phonetics  Speech sounds  Speech processes  Semantics  Morphology  Syntax  Pragmatics  Prosody  Language development  Language and cognition  Language thought  cognition</p>		3	A-5, A-6-B-3, D1:8
Genetics	<ul style="list-style-type: none"> <li>-Transfer of genetic material</li> <li>-Mode of inheritance</li> <li>-Chromosomes and chromosomal abnormalities e.g. Fragile X syndrome &amp; Down syndrome &amp; Turner syndrome</li> <li>-Multi factorial inheritance</li> <li>Genetic counseling</li> </ul>		0.5	A-4, B-1, B-4, D1:8

Statistics	-Types of statistical analysis -Mean, mode, median, standard deviation -Student test -Tests of variance -Tests of significance		0.5	A-8, D1:8
Electro acoustics	-Sound and its characteristics -Microphones - Loudspeakers -Transducers Digital and analogue signals -Computers in speech and voice studies		1	A-3, B-3, D1:8
Psychology	1-The individual in the environment 2-Attention 3-Perception 4-Learning 5-Memory 6-Thinking and Imagination 7-Feeling and Emotions 8-Intelligence 9-Personality 10-Motivation 11-Personality 12-Child play 13-Psychological and Psychometric evaluation		2	A-9, A-10, B-1, B-4, D1:8
<b>Elective Courses (MEDC) choose 2 courses</b>				
	<ul style="list-style-type: none"> <li>○ Critical Reading</li> <li>○ Scientific writing</li> <li>○ Evidence Based Medicine</li> <li>○ Medical statistics 2</li> <li>○ Communication Skills</li> </ul>	0.5 0.5 0.5 0.5 0.5	1	D-1,2,3,7,8,9
<b>Scientific activities</b>			2	D-3,4,5,8,9
<b>Residency training program (Phoniatrics)</b>			40	B-1,2,3,4,5,7,8 D-1,2,3,4

**Table 2: Second part**

Item	Course Modules	Credit points	Total	ILOs.
<b>Phoniatrics</b>	Delayed Language Development Hearing impairment Diffuse & minimal brain damage Attention Deficit Hyperactivity Disorder Pervasive developmental Disorders Dysphasia Dysarthria Dyspraxia Stuttering Velopharyngeal insufficiency Voice disorders Diagnosis of a case of dysphonia Management of dysphonia Laryngectomy Dyslexia Learning disabilities Swallowing disorders Assesemnt of Phoniatic diseases Rehabilitation of Phoniatic diseases Phonsurgery & Microlaryngosurgery		12	A-1, A-6, A-7 B-1, B-2, B-3, B-4, B-5 C-1, C-2, C-3, C-4, C-5, C-7, C-8, D1:9
<b>Audiology</b>	Hearing Impairment Problems associated with hearing impairment Intervention program for hearing impaired patients Audiological evaluation techniques Ototoxic medications Cochlear implants Hearing Aids & Assistive Listening Devices		1	A-10 B-1,B-2,B-3, D1:8
<b>Basics of ENT</b>	Ear diseases Nasal & paranasal disease Pharyngeal diseases Laryngeal diseases		2	A-11 C-7, D1:8
<b>Neurology</b>	1-Dysarthria 2-Dysphasia 3-Hemiplegia 4-Vascular Occlusive syndromes 5-Paraplegia 6-Ataxias 7-Extrapyramidal systems 8-Epilepsy 9-Demyelinating diseases 10-Motor neuron diseases		2	A-12 C-A, D1:8

	11-Meningitis & Encephalitis 12-Myasthenias 13-Peripheral neuritis 14-Brain tumors 15-Assessment of a neurological case			
<b>Psychiatry</b>	<b>Child Psychiatry:</b> 1-Mental retardation 2-Psychoneurosis & neurotic traits 3-Pervasive Developmental Disorders 4- Attention Deficit Disorders 5-Specific Developmental Disorders 7- Speech disorders stuttering 8- Elective mutism 9- Stereotyped motor disorders 10- Oppositional Disorders 11- Conduct Disorders 12- Identity Disorders 13- Schizoid disorder 14- Play therapy <b>Adult Psychiatry:</b> 1- Symptomatology 2- Neurosis 3- Psychosis 4- Assessment of a psychological case		2	A-12 C-A, D1:8
<b>Scientific activities</b>			3	E-1,2,3,7,8,9
<b>Master thesis</b>			20	D-3,4,5,8,9
<b>Residency training program (Phoniatrics)</b>			57	B-1,2,3,4,5 C- 1,2,3,4,5,7,8 D-1,2,3,4

### **Residency Training Program**

- **First phase (Basic Training):**

According the Faculty of Medicine, Cairo University By laws for Post Graduate Programs (July 2009), all the students should have a basic Internal Medicine training for 12 months. They also should complete the elective courses.

- **Second phase (Special Training):**

All students should complete the special part of the residency-training program in the Phoniatric Unit, Otolaryngology Department. They should spend 24 months in order to complete the needed credit points. The student is expected to attend the outpatient clinics and investigation room to share in patients care under the supervision of senior staff members. During this period the students will attend the Phoniatric course, prepare his thesis and participate in the scientific activities of the department.



*NB: The details of the training program are provided in separate document. The third phase of residency training (advanced training) is part of the MD degree*

### **Master Thesis**

All master-degree students should prepare a thesis in one of the main domains of Phoniatics (Voice, Speech, and Or language pathology, swallowing disorders, learning difficulties). The department and the ethical committees must approve the protocol of the research. The thesis should include a review part and a research part. The Thesis is supervised by one or more senior staff members from the Phoniatic Unit, Otolaryngology Department and may include other specialties according to the nature of the research. The thesis should be evaluated and approved by a committee of three professors including one of the supervisors and an external professor. Approving the thesis is mandatory to allow the student to set for the final exam.

### **Scientific Activities:**

The students should participate in the scientific activities of the departments such as:

- A detailed logbook including the theses and scientific events attended
- *Seminars (including recent topics and controversial issues). Students are expected to participate in the discussions.*
- *Scientific meetings arranged by the department.*

Each activity is monitored and given credit points registered in a special section in the residency-training logbook. The student should collect the required points before allowed to sit for final exam.

## **V. Regulations for progression and program completion**

After collecting the required credit points for the respective courses, the first phase of the residency training, and the scientific activities, the student will be eligible to sit for the first part examination. In case the student fails to pass the examination, he/she may proceed in the clinical training and can resubmit for the next examination. After passing the first part, the student submits a protocol for Master Thesis at the beginning of the second part. Before submitting to the final examination he/she should finish the thesis and get approval, complete phase 2 of special training program, and collect the required credit points. The candidate will receive his/her degree after passing this final examination. Master degree should be obtained within a maximum of 6 years after registration date.

## **VI. Assessment**

### **A: Assessment Tools:**

- **Supervision & Monitoring of the Training Program:**

According the Faculty of Medicine, Cairo University By laws for Residency Training Programs, coordinators carry continuous assessment during the program. A residency training logbook including scientific activities will be kept for each student to document all his/her assessment, examination and/or therapeutic activities as well as his/her participation in different scientific activities. The head of the department should allow the students to undergo the final examination when they complete their training program and collect the credit points needed.

- **Formal Assessment**

According the Faculty of Medicine, Cairo University Bylaws for Post Graduate Programs (July 2009), Students should be assessed at the end of first part and at the end of the second part

#### **1. First Part Final Exam:**

- **Anatomy, Genetics, & Statistics**: Three-hour written exam (including short essay and multiple choice questions)
- **Theories of language, Voice and Speech Production and Electro acoustics**: Three-hour written exam (including short essay and multiple choice questions)
- **Linguistics**: Three-hour written exam (including short essay and multiple choice questions) + oral exam
- **Psychology**: Three-hour written exam (including short essay and multiple choice questions) + oral exam

## 2. Second Part Final Exam Part 2:

- **Phoniatrics**: Two written exams (Three-hours each) including short essay questions, and MCQ (including problem solving) + oral exam + clinical exam
- **Ear nose and Throat Diseases and Audiology**: (Three-hour written examination) including short essay questions, and MCQ (including problem solving)
- **Neurology & Psychiatry**: Three hour written exam including short essay questions, and MCQ (including problem solving) + oral exam + clinical exam

## B: Assessment Schedule:

### 1. First Part Final Exam:

*The written exam will be held in April/October ( four days):*

*Day one: Anatomy, Genetics, and Statistics (3 hours)*

*Day two: Theories of Language, speech a, and Voice production (3 hours)*

*Day three: Linguistics (3hours)*

*Day four: Psychology (3 hours)*

*This will be followed by the oral exams on separate days (for Linguistics and Psychology)*

### 2. Second Part Final Exam:

*The written exam will be held in May/ November (four days):*

*Day one: Phoniatric 1 (3 hours)*

*Day two: Phoniatric 2 (3 hours)*

*Day three: Ear Nose and Throat Diseases and Audiology (3 hours)*

*Day four: Neurology and Psychiatry (3 hours)*

*This will be followed by the clinical (long and short cases as well as OSCl) and oral exams (one committee) on separate days (for Phoniatrics, Neurology, and Psychiatry)*

## C: Weighing Of Assessment: Marks allocated to courses

(50 marks for each credit point)

Course	Written	Oral	Clinical/practical	Total
<b>First part</b>				<b>550</b>
Anatomy, Genetics, & Statistics	150	-	-	150
Theories of Language, speech, and voice production Electro acoustics	150	-	-	150
Linguistics	100	50	-	150
Psychology	50	50	-	100
<b>Second part</b>				<b>950</b>
<b>Phoniatrics</b>				
○ Phoniatric 1	150	150	150	600
○ Phoniatric 2	150			
Ear Nose and Throat Diseases & Audiology	150	-	-	150
<b>Psychiatry &amp; Neurology</b>				
Psychiatry	50	25	25	200
Neurology	50	25	25	

Remarks

- It is mandatory to pass the four papers of the Phoniatric exam separately
- Passing mark in a written exam is  $\geq$

## VII. Evaluation of program intended learning outcomes:

Evaluator	Tool	Sample
1. Senior Students	Questionnaire at the end of the program	All the PG students

2. Alumni	The faculty is currently developing an Alumni office for postgraduates	Not yet determined
3. Stakeholders	A meeting will be arranged during the annual conference of the department	Available representatives from: <ul style="list-style-type: none"> <li>• Army hospitals</li> <li>• National medical insurance</li> <li>• Medical syndicate</li> <li>• Ministry of health</li> </ul>
4. External Evaluators	Review the program and courses Attending the final exam.	Once before implementation Bi-annual report
5. College Quality Assurance committee	Annual program review	

**Date of approval by department council**

***Program Coordinator      Head of Phoniatic Department      Head of ENT Department***

Courses	A Knowledge and Understanding												B Intellectual Skills					C Professional Skills							D General Transferable Skills								
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	1	2	3	4	5	6	7	1	2	3	4	5	6	7	8	9
1 <sup>st</sup> Master																																	
Anatomy (PHON 801)	+						+																		+	+	+	+	+	+	+	+	+
Theories of language and speech (PHON830 TLS)		+									+														+	+	+	+	+	+	+	+	+
Linguistics (PHON 830 LIN)					+	+								+											+	+	+	+	+	+	+	+	+
Genetics (PHON 813)				+							+				+										+	+	+	+	+	+	+	+	+
Statistics (PHON 809)								+						+											+	+	+	+	+	+	+	+	+
Electro acoustics (PHON 830 EA)			+											+											+	+	+	+	+	+	+	+	+
Psychology (PHON 817)									+	+		+			+										+	+	+	+	+	+	+	+	+
Scientific writing																									+	+	+	+	+	+	+	+	+
Evidence based medicine																									+	+	+				+	+	+
Medical statistics 2																									+	+	+				+	+	+
Communication skills																									+	+	+				+	+	+
2 <sup>nd</sup> Master																																	
Phoniatrics (PHON 830)	+					+						+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Audiology (PHON 830)									+			+	+	+	+										+	+	+	+	+	+	+	+	+
Basics of ENT (PHON 830)											+														+	+	+	+	+	+	+	+	+
Neurology (PHON 830)											+						+								+	+	+	+	+	+	+	+	+
Psychiatry (PHON 830)											+						+								+	+	+	+	+	+	+	+	+



