



Program Specification for Master Degree in Ophthalmology

Program type: Single

Program code: OPHT 829

Department offering the program: Department of Ophthalmology

Total credit points: 153

Academic year: 2016/2017

Program Coordinators: Prof. Dr. Khaled El Rakhawy, Prof. Dr. Omar El-zawahry, Prof. Dr. Gehad El-Nahry, Prof. Dr. Ayman El-Shiaty, Prof. Dr. Magda Salah, Prof. Dr. Karim Raafat, Prof. Dr. Lobana Khazbak.

External evaluators:xxx

I. Program aims

The program is a professional degree that enables candidates to specialize in the area of the eye and orbital adenxa, regarding medical aspect as well as surgical one. The candidate should achieve satisfactory levels of basic knowledge, clinical and surgical skills in all aspects in all aspects of ophthalmology. The program also aims to introduce the candidate to the basics of scientific medical research.

II. Intended learning outcomes of program (ILOs)

By the end of the program the candidate should be able to;

1. Knowledge and understanding:

- a) Recognize the basic scientific knowledge related to ophthalmic diseases and systemic diseases with ocular manifestations.
- b) Identify and discuss common ophthalmic diseases.
- c) To be able to identify the pathological background related to different ophthalmic disorders.

- d) Understand the basic investigations to be ordered to help in reaching the diagnosis (laboratory, ophthalmic investigations).
- e) Describe different management modalities for common ophthalmic disorders.
- f) To recognize basic and advanced surgical skills in ophthalmic practice.

2. Intellectual skills:

- a) Analyze symptoms and signs and to construct differential diagnosis.
- b) Design a diagnostic plan (clinically, laboratory, ophthalmic investigations)
- c) Interpret the results of different investigations.
- d) Set up treatment plan medically or surgically.

3. Professional and practical skills:

- a) History taking precisely from the patient.
- b) Examining the patient and identify the signs of ophthalmic disorders.
- c) Perform office clinical procedures such as applanation tonometry, fundus examination.
- d) Offer appropriate medical treatment.
- e) Provide an explanation of any surgical procedure required in the future.

4. General and transferable skills:

- a) Communicate with the patients to gain their trust.
- b) Respond to the patient's complaint and needs.
- c) Communicate with other doctors in different specialties to reach proper diagnosis
- d) Appreciate team work.
- e) Achieve computer skills to install patients data and to retrieve it.
- f) Acquire skills to perform paper work.
- g) Show leadership to organize work and to lead junior staff and paramedical staff as well.
- h) Understand different scientific methodologies and to be critical to them.
- l) to be able to write a scientific research

III. Academic standards.

External references for standards:

XXXX

IV. Program structure and contents.

Program admission requirements

According to the bylaws of the faculty of medicine Cairo University applicants should have MBBCh 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). Admission to the program is open during July. Training prior to registration may be accredited according to departmental evaluation. Admission for the program is open during July.

Program duration: Three years.

Program structure: Total Credit points 153

- **First part: 1.5 years - (table 1)** (68 credit points)
Candidate should fulfill the following:
 - **Compulsory courses; one academic year (30 weeks Starts October) (15 Credit Points):**
 - **Basic sciences courses (10 credit points)**
 - Ocular Anatomy (OPHT 829 AHE, 3 credit points)
 - Ocular Physiology (OPHT 829 PBG, 4 credit points)
 - Optics and refraction (OPHT 829 OCR, 3 credit points)
 - **General courses (5 credit points)**
 - General Surgery (OPHT 812, 1.5 credit points)
 - Internal Medicine (OPHT 811, 1.5 credit points)
 - Neurology (OPHT 816, 2 credit points)
 - **Elective courses (MEDIC 1 to 6): 2-courses, 0.5 credit points each (1 credit points).**
 - **Scientific activities: (3 credit points).**
 - **Residency training program Phase 1:**
“Basic General ----” for one and half year (49 credit points)
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- **Second part: 1.5 years - (table 2)** (65 credit points)
Candidate should fulfill the following:

- **Compulsory courses - one academic year (30 weeks): (16 credit points)**
 - Ophthalmic Medicine (OPHT 829 M, 8 Credit points)
 - Ophthalmic surgery (OPHT 829 S, 4 Credit points)
 - Ophthalmic pathology (OPHT 829 PMT, 4 Credit points)
- **Scientific activities: (4 credit points).**
- **Residency training program phase 2:**
“Special -----” for one and half year **(45 credit points).**
- **Master Thesis:** completed during second part **20 credit points.**

Table 1: First part

Courses	Course modules	Credit points	ILOs
Compulsory courses		15	
Anatomy of the eye and orbit	• Anatomy of the eye and visual pathways. Cranial nerves. Embryology of the eye	3	1-a
Optics and refraction	• Optical principles of lenses. • Optical appliances and instruments	3	1-a
Physiology	• Physiology of the eye and visual pathway. Basic genetics of eye and visual pathway	4	1-a
General Courses	• General medicine, general surgery and neurology-	5	1-a
Elective Courses (Candidate chooses 2 courses)		1	
(MEDC)			
1. Critical Reading		0.5	4-c,e,f,h,i
2. Scientific writing		0.5	
3. EBM		0.5	
4. Medical statistics II		0.5	
5. Medical ethics		0.5	
6. Communication Skills		0.5	
Scientific activities		3	4-c,d,e,h,i
Residency training program (phase 1 basic training)		49	3-f 4-a,b,c,d,e,f,g
Total		68	

Table 2: Parts 2 & 3

Items	Credit points	ILOs.
Compulsory Courses	16	
• Ophthalmic Medicine (OPHT 829 M)	8	1-b,d,e, 2-a,b,c,d 3-a,b,c,d
• Ophthalmic surgery (OPHT 829 S)	4	1-b,d,e,f, 2-a,b,c,d 3-a,b,c,d
• Ophthalmic pathology (OPHT 829 PMT)	4	1-a,c
Scientific activities	4	4-c,d,e,h,i
Residency training program (phase 2)	45	2-a,b,c,d 3-a,b,c,d 4-a,b,c,d,e,f,g
Total of Part 2	65	
Master thesis	20	4-h,i

Residency Training Program

- **Basic Training:**

According to the new Bylaws July 2009, amended in 2015 for post graduate programs, all the students should have a basic surgical and medical training. They should spend at least 3 months in the Neurology Department and another 15 months in the Ophthalmology Department. During this period the students will attend the basic sciences courses as well as the general medical and surgical courses. They also should complete the elective courses

- **Special Training:**

All students should complete the special part of the residency training program in the ophthalmic department. They should spend 18 months in order to acquire the needed credit hours. During this period the students will attend the medical, surgical and pathology course(s) of the second part and will participate in the scientific activities of the department.

NB: The details and requirements of the training program are illustrated in separate document

Master Thesis

All master-degree students should prepare a thesis in ophthalmology. The department and the ethical committees must approve the protocol of the research. The thesis (should / may) include a review part and a research part. The thesis is supervised by one or more senior staff members 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.

Scientific Activities:

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

- *Journal club (presenting scientific articles) once every one- two weeks.*
- *Seminars (including recent topics and controversial issues) once weekly. Students are expected to participate in the discussions.*
- *Scientific meetings arranged by the department*
- *Attendance of Thesis discussions*
- *Others like individual department grand round*

Each activity will be monitored and given credit points registered in a Resident logbook. The student should collect the required points before being allowed to sit for final exam

V. Regulations for progression and program completion

After finishing the first part of residency training, attending the specified courses and collecting the required credit points, the student should pass the first part examination including the basic sciences and general medicine and general surgery before proceeding to the second part. In case the student fails to pass the examination, he 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 second part. Before submitting to the final exam, he 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 degree after passing this final examination. Master degree should be obtained within a maximum of 6 years after registration date.

VI. Evaluation

According to the bylaws of the residency, professors carry continuous assessment during the program. A residency-training program logbook will be kept for each student to document all his/her clinical, laboratory and/or operative/procedural 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.

Final Exam Part I

Basic sciences

- Anatomy of the eye and orbit: three hour written exam (including short essay and 60 multiple choice questions) + oral exam

- Physiology and biochemistry of the eye: Three hour written exam (including short essay and 60 multiple choice questions) + oral exam
- Optics and refraction: Three hour written exam (including short essay questions and 60 multiple choice questions) + oral exam +practical exam

General medicine, neurology and general medicine exam: Three hour exam (including short essay questions)+ oral exam +clinical exam in medicine and neurology)

Final Exam Part 2

- Ophthalmic medicine: Three hour written exam including 60 MCQ questions + oral exam +Clinical exam+ Illustrative
- Ophthalmic surgery: Three hour written exam including 40 MCQ questions + oral exam +Clinical illustrative exam
- Pathology, microbiology and immunology : Three hour written exam including 50 MCQ + oral exam +Illustrative exam

Table 3 - Marks allocated to courses (each credit point 50 marks)

Course	Written	Oral	Clinical/practical	Total
First part				750
• Physiology of the eye	150	50	-----	200
• Anatomy of the eye and orbit	100	25	25	150
• Optics and refraction	100	25	25	150
• General Medicine, General Surgery & Neurology.	45 45 40	20 20 20	20 20 20	250
Second part				600
• Ophthalmic Medicine	200	100	100	400
• Ophthalmic Surgery	100	50	50	200
• Ophthalmic Pathology	100	50	50	200

Remarks

- It is mandatory to pass the three papers of the ophthalmology exam separately
- Passing mark in a written exam is $\geq 60\%$

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"> • Army hospitals • National medical insurance • Medical syndicate • Ministry of health
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

Signatures

Program Coordinators

Prof. Dr. Khaled El Rakhawy, Prof. Dr. Omar El-zawahry, Prof. Dr. Gehad El-Nahry, Prof. Dr. Ayman El-Shiaty, Prof. Dr. Magda Salah, Prof. Dr. Karim Raafat, Prof. Dr. Lobana Khazbak.

Head of Department

Prof.Dr.Khaled El Rakhawy