Faculty of Medicine

Aswan University

Course Specifications

Ophthalmology Doctorate Degree – Part Two

Eye Medicine and Surgery

Code: OPH326B

2020-2021

A- Administrative Information

1- Program title: Doctorate Degree, Eye Medicine and Surgery

2- Department offering the program: ophthalmology department

3- Department in charge of the course: ophthalmology department

4- Level: second part

5- Credit points: 10 credit hours

Lectures: **5 credit hours= 340 taught hours**

Practical: **5 credit hours = 340 taught hours**

B- Professional Information

1 – Intended learning outcomes (ILOs):

By the end of this program the candidate will be able to:

1. Recognize clinical diagnosis of diseases affecting the eye and the adnexa
2. Investigate tools necessary for the diagnosis of ophthalmic diseases
3. Identify clinical skills necessary for diagnosis of eye diseases
4. Recognize medical emergencies and critical care in ophthalmology
5. List neurologic and ophthalmology related disorders
6. List ocular manifestation of systemic diseases
7. Recognize the diseases affecting the eye that needs surgical interference.
8. Understand the variable surgical technique for each ocular disease.
9. Recognize and train to use the basic ophthalmic surgical instruments machines
10. Recognize the possible surgical hazards and the preventive precautions and measures to avoid or deal with them.
11. Recognize and apply the proper infection control measures in the surgical wards.
12. Identify post-operative surgical complications and the preventive precautions and measures to avoid or deal with them.

2- Course contents:

- ❖ **Lectures:**

(1) Course content: Medicine

1. **Diseases of Eyelids :** Blepharitis, allergy- lid retraction- Madarosis- Blepharospasm- Infections	10
2. **Diseases of Conjuctiva :** Conjunctivitis (Bacterial, Viral, Chlamydial, allergic)- Mucocutaneous disorders- Dry eye.	**10**
3. **Diseases of Cornea :** Keratitis (Bacterial, Viral, Mycotic)- Pigmentations, Precipitates- Peripheral corneal disorders- Degeneration- Dystrophies- Ectasia.	**10**
4. **Diseases of Sclera :** Scleritis- Episcleritis.	**10**
5. **Glaucomas:** Ocular hypertension- Primary Open angle glaucoma – Normo tensive glaucoma , Primary angle closure glaucoma – secondary Open angle glaucoma , secondary angle closure glaucoma , Infantile & Juvenile.	**10**
6. Diseases of lacrimal appararus: Dacryoadenitis- Dacryocystitis- canaliculitis	10
7. **Disease of Uvea:** Uveitis (Infective, Non- infective, Chrornic)	10
8. **Diseases of Macula:** age related macular degeneration , centrall serous chorio retinopathy , Cystoid macular oedema, Maculopathies.	10
9. **Diseases of Retina:** Dystrophies (Receptors, Retinal pigment epithelium & Choroidal) Degenerations Vascular: Retinopathies (Diabetic, Hypertensive, Renal, Toxaemia, Arteriosclerotic), retinal artery occlusion & retinal vein occlusion	20
10. **Diseases of optic nerve:** Neuropathy, Neuritis, Papilledema, congenital.	20

11. **Neuro-ophthalmology :** Pupillaryanomalies,Nystagmus,ophthalmople gias, Migraine, Brain stem syndromes, optic atrophy- chiasmal lesions.	30
12. **Medical ophthalmology:** Metabolic (Diabetes- Gout)- Hypovitaminosis- Endocrinal (Pituitary- Thyroid- Parathyroid- Thymus)- Blood diseases- Collagen diseases (systemic luysus erythematous – rheumatic arthritis - Gaint cell arthritis)- Chronic granulomatous diseases (Tuberculosis , syphilis, Leprosy & Sarcoidosis)- Phacomatoses- Musculer diseases.	20

Surgery

1. **Sterilization - Aneasthesia.**	**5**
2. **Eyelids:** Excision & Reconstruction (grafts). Correction of ptosis, lagophthalmos, Entropion, Ectropion, lashdisorders. Lid margin: canthotomy, cantholysis, canthoplasty, tarsorrhaphy	**10**
3. **Lacrimal gland:** Dacryo adenectomy.	**5**
4. **Conjunctiva :** Excision & reconstruction (Conjunctival Flap , graft .) pteygium.	**5**
5. **Cornea:** Keratectomy-Keratoplasty- keratoprosthesis keratomileuses(Freeze-Non freeze-laser insito keratomik+++++) - Refractive surgery (Incision, Excision , Addition , Replacement).- Epikertophakia, keratotomy (Radial, Astig., Arcuate, Hexagonal., Keratophakia) Sclera : graft , repair .	**10**
6. Lacrimal Drainage System : Dacryo cystectomy –Dacryo cysto rhinostomy – Intubation	5
7. Lens extraction , intra ocular lens. implantation (Phakic (anterior chamber ,posterior chamber)- Aphakic (anterior chamber ,posterior chamber, Sulcus, scleral . Fixation)	**10**

8. **Iris:** Iridectomy, Iridotomy. Iridoplasty, Excision.	5
9. **Ciliary body :** cyclectomy , Cyclodialysis , cyclodestruction (Diathermy, Cryo., LASER)	**10**
10. **Choroid :** choroidectomy .	**5**
11. **Glaucoma :** .Ext. fixt.op- Implants& valves- Non penetrating op.	15
12. **Retina:** Retinotomy, Retinoctomy, Retinopexy.	15
13. **Vitreous:** Vitrectomy- Evisceration	**15**
14. **Extra Ocular Muscles:** Recession, Resection, Transposition, Advancement	**15**
15. **Orbit:** Orbitotomy- Reconstruction- Contracted socket- Enucleation	15
16. **Trauma:** Contusion- Haemorrhage- Fracture- Foreign bodies- Chemical injuries.	10
17. **LASER:** Cornea, Iris, Trabecular tissue, Ciliary. Body, Retina, Suture lysis- Sclerostomy- Capsulotomy- Phaco.	15

- **Practical & clinical skills:**

2 hours/week = 340 hours =5 credit hours

4-Student Assessment

Written exam: 570 marks [4 papers; 150, 150, 120, 150 marks]
Oral exam: 390 marks
Clinical exam: 240 marks
Total: 1200

5- List of references

1. The Current American Academy of Ophthalmology Basic and Clinical Science Course (12 volumes) supplemented by reading selected references ostensibly covers the curriculum, including the basic sciences and medicine in relation to ophthalmology. This text is regularly updated.
2 Abrams D. Duke Elder's Practice of Refraction. Churchill Livingstone. This text covers the basic principles of refraction.
3. Albert DM. Ophthalmic Surgery : Principles and Techniques. Blackwell Science. This 2 volume text provides a comprehensive coverage of the subject.
4. Albert DM, Jakobiec. Principles and Practice of Ophthalmology. W B Saunders. This volume text can be considered a fairly comprehensive reference text book.

5. Collins JRO. A Manual of Systematic Eyelid Surgery. Churchill Livingstone. A clear `presentation is the hallmark of this book.
6. Easty DL, Sparrow JM. Oxford Textbook of Ophthalmology (2 volumes) Oxford Medical Publications. This text provides a well presented coverage of the subject of ophthalmology, but must be supplemented by further reading.
7. Forrester JV, Dick AD, McMenamin PG, Lee WR. The Eye. Basic Sciences in Practice. W B Saunders. The principal basic sciences in relation to ophthalmology are described in this text.
8. Gass JDM. A Stereoscopic Atlas of Macular Diseases: Diagnosis and Treatment. This is an excellent reference text covering most aspects of retinal disease.
9. Glaser JS. Neuro-ophthalmology. LipincottWilliams & Wilkins. This text provides a thorough and concise coverage of the subject.
10. Harry J, Misson G. Clinical Ophthalmic Pathology. Butterworth/Heinemann. The emphasis of the textbook is to describe the pathological basis for the clinical manifestations of disease.
11. Jimenez-Sierra JM, Ogden TE, Van Boemel GB. Inherited Retinal Diseases. A Diagnostic Guide. Mosby. This text is brief, clearly laid out and comprehensive.
12. Kanski JJ. Clinical Ophthalmology. Butterworth/Heinemann. This textbook covers the curriculum in ophthalmology to a basic level only.
13. Leigh JR, Zee DS. The Neurology of Eye Movements. This text gives a good description of how neuro-ophthalmic pathology affects eye movements.
14. Colquhoun, M. C., Evans, T. R., Handley, A. J. (2003) ABC of Resuscitation. 5th Edition, Published by BMJ Publishing Group.
15. Miller NR, Newman NJ. Walsh and Hoyt's Clinical Neuro-ophthalmology (5 volumes). Williams and Wilkins. This is the principle reference text for neuro-ophthalmology.
16. Oyster CW The human eye Sinauer Associates. Sunderland. Massachusetts This text provides a clear review of the anatomy and physiology of the eye.
17. von Noorden GK. Binocular Vision and Ocular Motility. Theory and Management of Strabismus. Mosby. Squint and its management are well covered in this text.
18. Taylor D. Paediatric Ophthalmology. Blackwell Science. This text provides a clear and detailed coverage of the subject.
19. Van Heuven WAJ, Zwann J. Decision Making in Ophthalmology. Mosby. Provides useful guidance concerning how a wide range of conditions should be managed.