COURSE SPECIFICATION

(Anatomy and embryologyof the Eye)

Faculty of Medicine– Mansoura University

(A) Administrative information

(1) Programme offering the course:	MD degree of Ophthalmology programme
(2) Department offering the programme:	Ophthalmology department
(3) Department responsible for teaching the course:	OPhthalmology department
(4) Part of the programme:	MD degree of Ophthalmology programme 1st part
(5) Date of approval by the Department`s council	31/7/2016
(6) Date of last approval of programme specification by Faculty council	9-8-2016
(7) Course title:	Anatomy and Embryology of the eye OPHT 622 AE
(8) Course code:	OPHT 622 AE
(9) Credit hours	1
(10) Total teaching hours:	١٥ hours

(B) Professional information

(1) Course Aims:

The broad aim of the course is to educate students about Anatomy of the Eye also to provide the students with updated data and researches concerned the eye, adnexae and nervous system,

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(2) Intended Learning Outcomes (ILOs):

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

A- Knowledge and Understanding

A1	Describe the normal anatomy, embryologic development, physiology, and biochemistry of the crystalline lens.
A2	Describe the basic structure of the retina and its relationship to the vitreous and choroids.
A3	Describe the anatomy of the cornea& conjunctiva.
A4	Appraise the anatomy of iris &pupil.
A5	Define the anatomy of the vascular system .
A6	Describe the normal anatomy and function of orbital and periocular tissues.
A7	Outline the anatomy of the extraocular muscles and their fascia.
A8	Outline the anatomy of ciliary body & trabecular meshwork.
A9	Appraise the anatomy of the visual pathway in order to localize lesions

B- Intellectual skills

I1	Interpret the most important anatomic land marks
I2	Correlate the surgical anatomy of his clinical practice.
I3	Integrate the anatomy with other basic and clinical sciences.
I4	Identify congenital anomalies of the lens.
I5	Summarize the developmental alterations that lead to structural changes of the cornea.
I6	Correlate clinical and pathologic findings that differentiate intraocular tumors.
I7	Review anatomy of other cranial nerves.
I8	Correlate the physiology and neuro-anatomy of the pupil, cranial nerves, and the visual sensory and ocular motor pathways.

(3) Course content:

Subjects	Lectures	Clinical	Laboratory	Field	Total Teaching Hours
Embryology& Development , Anatomy , Histology &Cytology.	2				١٥
Outer coat : Cornea , Limbus. & Sclera.	1				
Middle coat : Choroid, Ciliary body& Iris.	2				
Inner coat : Retina.	2				
Contents : Lens & Vitreous.	2				
1. Eyelids & Eye brow. 2. Conjunctiva, Conjuntival glands, caruncle, plica semilunaris. 3. Lacrimal gland. 4. Lacrimal puncta, canaliculi, sac. & Nasolacrimal duct. 5. Extra Ocular Muscles: *Recti & Oblique.* 6. Orbit , Paranasal sinuses , Fascia, fat & nerves (Oculomotor, Trochlear, Trigeminal, Abducent, Facial, & Auditory). 7. Arterial supply , Venous Drainage:(Ophthalmic artery & branches ,Ophthalmic vein & tributaries) & Lymph drainage.	3				
4)Visual pathway : Optic nerve , optic chiasma , optic tract , Lateral Geniculate Nucleus , optic radiations, occipital cortex, Blood supply.	2				
5) Autonomic nervous system : Sympathetic & Parasympathetic.	1				

(4) Teaching methods:

4.1: Lecture

4.2: Practical class

4.3: Small group discussion with case study and problem solving

4.4: Tutorial

4.5: Seminars

4.6: Workshops

(4) Assessment methods:

5.1:Written Examination for assessment of ILOs knowledge & intellectual skill.

5.2 MCQ exam for assessment of ILOs knowledge & intellectual skill.

5.3: Log book for activities for assessment of : mainly for assessment practical & transferrable skills
attendance of different conferences, thesis discussions, seminars, workshops
Attendance of scientific lectures.

5.4: seminars: the candidate should prepare and present at least one seminar in atopic related to the course and determined by the supervisors in front of the department staff .

Assessment schedule:

Assessment 1: after 6 month from MD registration (100 marks)

Assessment 2 : Log book required activities to go through 1st part examination .

Assessment 3 : MCQ exam for continuous assessment of knowledge and intellectual skills.

***Assessment 4*:** the candidate should prepare and present at least one seminar in atopic related to the course and determined by the supervisors in front of the department staff (without marks).

Percentage of each Assessment to the total mark:

Written exam: 100 Marks including 20%MCQ

Other assessment without marks: practical tests and exam, seminars and log book assessment are requirement of the 2nd part exam.

(5) References of the course:

6.1: Text books:

- Anatomy of the eye: by Wolf,

6.2: Websites:

- rcoph.org.uk

6.3: Recommended books

- Anatomy of the eye: by Wolf,

(6) Facilities and resources mandatory for course completion:

- Lecture rooms: available in the department

Course content and ILOs Matrix

Programme 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 programme ILOs in question.

Course content	a1	a2	a3	a4	a5	a6	a7	a8	a9
Embryology& Development , Anatomy , Histology &Cytology.	√								
Outer coat : Cornea , Limbus. & Sclera.			√						
Middle coat : Choroid, Ciliary body& Iris.				√				√	
Inner coat : Retina.		√							
Contents : Lens & Vitreous.									
8. Eyelids & Eye brow. 9. Conjunctiva, Conjuntival glands, caruncle, plica semilunaris. 10. Lacrimal gland. 11. Lacrimal puncta, canaliculi, sac. & Nasolacrimal duct.					√	√	√		

12. Extra Ocular Muscles: *Recti & Oblique.* 13. Orbit , Paranasal sinuses , Fascia, fat & nerves (Oculomotor, Trochlear, Trigeminal, Abducent, Facial, & Auditory). 14. Arterial supply , Venous Drainage:(Ophthalmic artery & branches ,Ophthalmic vein & tributaries) & Lymph drainage.									
4)Visual pathway : Optic nerve , optic chiasma , optic tract , Lateral Geniculate Nucleus , optic radiations, occipital cortex, Blood supply.									√
5) Autonomic nervous system : Sympathetic & Parasympathetic.									√

Course content	I1	I2	I3	I4	I5	I6	I7	I8
Embryology& Development , Anatomy , Histology &Cytology.			√					
Outer coat : Cornea , Limbus. & Sclera.	√	√	√					
Middle coat : Choroid, Ciliary body& Iris.			√	√		√		√
Inner coat : Retina.		√	√			√		
Contents : Lens & Vitreous.			√		√	√		
1. Eyelids & Eye brow. 2. Conjunctiva, Conjuntival glands, caruncle, plica semilunaris. 3. Lacrimal gland. 4. Lacrimal puncta, canaliculi, sac. & Nasolacrimal duct. 5. Extra Ocular Muscles: *Recti &*	√	√	√			√	√	

Oblique. 6. Orbit , Paranasal sinuses , Fascia, fat & nerves (Oculomotor, Trochlear, Trigeminal, Abducent, Facial, & Auditory). 7. Arterial supply , Venous Drainage:(Ophthalmic artery & branches ,Ophthalmic vein & tributaries) & Lymph drainage.								
4)Visual pathway : Optic nerve , optic chiasma , optic tract , Lateral Geniculate Nucleus , optic radiations, occipital cortex, Blood supply.		√	√				√	√
5) Autonomic nervous system : Sympathetic & Parasympathetic.		√	√				√	√

Course content	T1	T2	T3	T4	T5	T6	T7	T8
Embryology& Development , Anatomy , Histology &Cytology.	√	√	√	√	√	√	√	√
Outer coat : Cornea , Limbus. & Sclera.	√	√	√	√	√	√	√	√
Middle coat : Choroid, Ciliary body& Iris.	√	√	√	√	√	√	√	√
Inner coat : Retina.	√	√	√	√	√	√	√	√
Contents : Lens & Vitreous.	√	√	√	√	√	√	√	√
1. Eyelids & Eye brow. 2. Conjunctiva, Conjuntival glands, caruncle, plica semilunaris. 3. Lacrimal gland. 4. Lacrimal puncta, canaliculi, sac. & Nasolacrimal duct.	√	√	√	√	√	√	√	√

5. Extra Ocular Muscles: *Recti & Oblique.* 6. Orbit , Paranasal sinuses , Fascia, fat & nerves (Oculomotor, Trochlear, Trigeminal, Abducent, Facial, & Auditory). 7. Arterial supply , Venous Drainage:(Ophthalmic artery & branches ,Ophthalmic vein & tributaries) & Lymph drainage.								
4)Visual pathway : Optic nerve , optic chiasma , optic tract , Lateral Geniculate Nucleus , optic radiations, occipital cortex, Blood supply.	√	√	√	√	√	√	√	√
5) Autonomic nervous system : Sympathetic & Parasympathetic.	√	√	√	√	√	√	√	√

Course methods of assessment and ILOs Matrix

Programme ILOs are enlisted in the first row of the table (by their code number: a1, a2……etc), then the Course methods of assessment are enlisted in first column, and an "x" mark is inserted where the respective course contributes to the achievement of the programme ILOs in question.

Course methods of assessment	a1	a2	a3	a4	a5	a6	a7	a8	a9
5.1:Written Examination	√	√	√	√	√	√	√	√	√
5.2 MCQ exam for	√	√	√	√	√	√	√	√	√
5.3: Log book for activities for assessment of : mainly for assessment practical & transferrable skills attendance of different conferences, thesis discussions, seminars, workshops Attendance of				√				√	

scientific lectures.									
5.4: seminars: the candidate should prepare and present at least one seminar in atopic related to the course and determined by the supervisors in front of the department staff .									

Course content								
	I1	**I2**	**I3**	**I4**	**I5**	**I6**	**I7**	**I8**
5.1:Written Examination	√	√	√	√	√	√	√	√
5.2 MCQ exam	√	√	√	√	√	√	√	√
5.3: Log book for activities for assessment of : mainly for assessment practical & transferrable skills attendance of different conferences, thesis discussions, seminars, workshops Attendance of scientific lectures.								
5.4: seminars: the candidate should prepare and present at least one seminar in atopic related to the course and determined by the supervisors in front of the department staff .	√	√	√	√	√	√	√	√

Course coordinator: : Prof. Dr Adel El layeh

Head of the department: Prof. Dr Adel El layeh