



COURSE SPECIFICATION

(Anatomy and embryology of the Eye)

Faculty of Medicine- Mansoura University

(A) Administrative information

(1) Programme offering the course.	Master 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.	Master degree of Ophthalmology programme 1 st 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 OPHT501
(8) Course code.	OPHT 501
(9) Credit hours	1
(10) Total teaching hours.	15 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,

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

(3) Course content:

Date	Title	Supervisor's signature	Teaching hours (15)
	Embryology & Development , Anatomy , Histology & Cytology.		1
	Outer coat : Cornea , Limbus . & Sclera.		1
	Middle coat : Choroid, Ciliary body & Iris.		1
	Inner coat : Retina.		1
	Contents : Lens & Vitreous.		1
	<ol style="list-style-type: none"> 1. Eyelids & Eye brow. 2. Conjunctiva, Conjunctival glands, caruncle, plica semilunaris. 3. Lacrimal gland. 4. Lacrimal puncta, canaliculi, sac. & Nasolacrimal duct. 5. Extra Ocular Muscles: <i>Recti & Oblique</i>. 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. 		1 1 1 1 1 1 1
	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

(5) **Assessment methods:**

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

5.2: Oral examination

5.3: Practical examination

5.4 MCQ examination.

5.5: Log book for activities for assessment of : mainly for assessment of practical & transferrable skills which are accepted through attending different conferences, thesis discussions, seminars, workshops, attending scientific lectures as well as self learning.

5.6: 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: written after 6 month from master registration

Assessment 2 : Oral exam 6 month from master registration

Assessment 3 : MCQ exam for continuous assessment of knowledge and intellectual skills at the end of the semester after 15 weeks

Assessment 4 Log book required activities to go through 1st part examination .

Assessment 5: 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: 180 Marks including 20% MCQ

Oral exam 120 Marks

Other assessment without marks: practical tests and exam, seminars and log book assessment are requirement of the 1st part exam.

(6) 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,

(7) Facilities and resources mandatory for course completion.

- Lecture rooms: available in the department

Subjects	A1	A2	A3	A4	A5	A6	A7	A8	A9
Embryology & Development , Anatomy , Histology & Cytology.	√		√	√	√				
Inner coat :Retina.	√	√	√	√	√				
Contents : Lens & Vitreous.	√		√	√	√				
1. Eyelids & Eye brow. 2. Conjunctiva, Conjunctival glands, caruncle, plica semilunaris. 3. Lacrimal gland. 4. Lacrimal puncta, canaliculi, sac. & Nasolacrimal duct. 5. Extra Ocular Muscles: <i>Recti & Oblique.</i> 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.	√		√	√	√				
Outer coat :Cornea , Limbus. & Sclera.	√		√	√	√				
Middle coat :Choroid, Ciliary body& Iris.	√		√	√	√			√	

Subjects	I1	I2	I3	I4	I5	I6	I7	I8
Embryology & Development , Anatomy , Histology & Cytology.			√			√	√	√
Inner coat :Retina.			√			√	√	√
Contents : Lens & Vitreous.	√		√			√	√	√
1. Eyelids & Eye brow. 2. Conjunctiva, Conjunctival glands, caruncle, plica			√			√	√	√

semilunaris. 3. Lacrimal gland. 4. Lacrimal puncta, canaliculi, sac. & Nasolacrimal duct. 5. Extra Ocular Muscles: <i>Recti</i> & <i>Oblique</i> . 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.			√	√		√	√	√
Outer coat :Cornea , Limbus. & Sclera.		√	√			√	√	√
Middle coat :Choroid, Ciliary body& Iris.			√			√	√	√

Subjects	T1	T2	T3	T4	T5	T6	T7	T8
Embryology & Development , Anatomy , Histology & Cytology.	√	√	√	√	√	√	√	√
Inner coat :Retina.	√	√	√	√	√	√	√	√
Contents : Lens & Vitreous.	√	√	√	√	√	√	√	√
1. Eyelids & Eye brow. 2. Conjunctiva, Conjunctival glands, caruncle, plica semilunaris. 3. Lacrimal gland. 4. Lacrimal puncta, canaliculi, sac. & Nasolacrimal duct. 5. Extra Ocular Muscles: <i>Recti</i> & <i>Oblique</i> . 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.	√	√	√	√	√	√	√	√
Outer coat : Cornea , Limbus. & Sclera.	√	√	√	√	√	√	√	√
Middle coat : Choroid, Ciliary body & Iris.	√	√	√	√	√	√	√	√

Course assessment method	A1	A2	A3	A4	A5	A6	A7	A8	A9
Written Examination	√	√	√	√	√	√	√	√	√
Oral Examination	√	√	√	√	√	√	√	√	√
Practical Examination			√	√		√			
MCQ Examination	√	√	√	√	√	√	√	√	√
Log Book activities									
seminars:			√	√		√	√	√	

Course assessment method	I1	I2	I3	I4	I5	I6	I7	I8
Written Examination	√	√	√	√	√	√	√	√
Oral Examination	√	√	√	√	√	√	√	√
Practical Examination						√	√	
MCQ Examination	√	√	√	√	√	√	√	√
Log Book activities								
seminars:	√	√	√	√	√	√	√	√

Course assessment method	T1	T2	T3	T4	T5	T6	T7	T8
Written Examination			√	√				
Oral Examination	√	√	√	√				
Practical Examination	√	√	√	√				
MCQ Examination			√	√	√			
Log Book activities	√							
seminars:	√	√	√	√		√	√	√

Course
coordinat

or. : Prof. Dr Adel El layeh

Head of the department: Prof. Adel El layeh