COURSE SPECIFICATION

(Microbiology 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:	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:	Microbiology & Immunology of the eye OPHT 607 OPHT 622 MI
(8) Course code:	OPHT 607 OPHT 622 MI
(9) Credit hours	1/4
(10) Total teaching hours:	3.75 hours

(B) Professional information

(1) Course Aims:

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

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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 disease transmission cycle.
A2	Describe Strategies to combat nosocomial infection.
A3	Recognize necessary vaccines for health care workers
A4	Recognize the steps of post exposure management (exposure to blood and infectious diseases.
A5	Recognize the notifiable infectious disease according to MOHP regulation.
A6	Know elements of standard precaution and transmission based precaution
A7	Show their recognition of : Anatomy of Bacterial cell: morphology &stain. Physiology and metabolism: Pathogenecity- Media- Resistance-Biochemical reaction. Microbial genetics Antimicrobial agents: Antibacterials- Antivirals- Antimycotics
A8	Describe: • Gram positive Cocci: staphylococci- Streptococci- Pneumococci • Gram negative Cocci: Gonococci • Bacilli: Pseudomonas, Proteus, E.coli, Tetanus, Diphtheria, Tuberculosis , Koch Weeks, Marax Axenfeld. • Chlamydia • Spirochetes
A8	Recognize: • General characters of viruses, stains, media, Pathogenesis and control. • Orthovirus: Influenza • Paramyxovirus: Mumps, Measles • Herpes Virus: Herpes Simplex- Herpes Zoster- Cytomegalovirus- Adenovirus • Pox virus: vaccinia- Molluscum contagiosum

	• Onchogenic virus: Herpes Simplex 2 –Cyto Megalo virus & Papilloma-Epstein Barr virus. • Monilia, Actinomycosis, Nocardiosis, Mycetoma, Sporotrichosis, Blastomycosis, Cryptocociccosis, Aspergillosis, Histoplasmosis, coccidiodomycosis.
A10	Explain • Host- Parasite relationship • Immune response & Inflammatory cells • Hypersensitivity reactions I, II, III, IV • Transplantation immunity (corneal transplant) • Tumour Immunology.

B- Intellectual skills

I1	Select the proper transmission based precaution on dealing with different infectious disease .
I2	Choose in a cost effective way the new and novel modalities used to reduce risk of health care associated infection (urinary cath, central venous catheters, etc…….).
I3	Do risk assessment of different medical interventions and choose the proper level of precautions (clean, aseptic, and surgical techniques)
I4	Choose proper disinfectant / antiseptics in different indications
I5	Identify, calculate and monitor different hospital acquired infections rates using provided tools.
I6	Recognize and notify early outbreaks.

(3) Course content:

Subjects	Lectures	Clinical	Laboratory	Field	Total Teaching Hours
General Microbiology: - Introduction to microbial causes of human diseases including bacteria, viruses and fungi. - Antimicrobial agents & drug resistance: - Topical (ocular) antimicrobial drugs used for treatment of eye infections.	**1.25**				**3.75**
Immunology: - ***Basic immunology:*** Immune system & Types of immunity. Cells of the immune system and their functions.	**1.25**				

Antigens , Immunoglobulins and Cytokines. Immtmomodulation.	1.25				
Clinical immunology: Innate and adaptive immunity of the eye. Eye as an Immunologic privileged site . Hypersensitivity. ● Eye allergy. ➢ Autoimmunity & autoimmune diseases affecting eye. ➢ Tumor immunology & immunotherapy. ➢ Transplantation immunology: ● Corneal immunogenicity and corneal transplantation **Clinical Microbiology:** ○ Normal flora of the eye. ○ Microbiological investigations and treatment of eye infections. ○ Mycobacterial and atypical mycobacterial infection ○ Ocular fugal infection ○ Ocular viral infection Chlamydia eye infection.					

(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: 25 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:

- Jawetz Microbiology text book : by microbiology department ,

6.2: Websites:

- rcoph.org.uk

6.3: Recommended books

Microbiology book : by microbiology department ,

(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.

Subjects	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10
General Microbiology: - Introduction to microbial causes of human diseases including bacteria, viruses and fungi. - Antimicrobial agents & drug resistance: - Topical (ocular) antimicrobial drugs used for treatment of eye infections.	✓									✓
Immunology: - ***Basic immunology:*** Immune system & Types of immunity. Cells of the immune system and their functions. Antigens , Immunoglobulins and Cytokines. Immtmomodulation.						✓	✓	✓		✓

Clinical immunology: Innate and adaptive immunity of the eye. Eye as an Immunologic privileged site . Hypersensitivity. ● Eye allergy. ➢ Autoimmunity & autoimmune diseases affecting eye. ➢ Tumor immunology & immunotherapy. ➢ Transplantation immunology: ● Corneal immunogenicity and corneal transplantation						✓	✓	✓		✓
Clinical Microbiology: ○ Normal flora of the eye. ○ Microbiological investigations and treatment of eye infections. ○ Mycobacterial and atypical mycobacterial infection ○ Ocular fugal infection ○ Ocular viral infection Chlamydia eye infection.		✓	✓	✓	✓	✓	✓	✓	✓	

Subjects	I1	I2	I3	I4	I5	I6	I7
General Microbiology: - Introduction to microbial causes of human diseases including bacteria, viruses and fungi. - Antimicrobial agents & drug resistance: - Topical (ocular) antimicrobial drugs used for treatment of eye infections.	✓						
Immunology: - ***Basic immunology:*** Immune system & Types of immunity. Cells of the immune system and their functions. Antigens , Immunoglobulins and Cytokines. Immtmomodulation.							

Clinical immunology: Innate and adaptive immunity of the eye. Eye as an Immunologic privileged site . Hypersensitivity. ● Eye allergy. ➢ Autoimmunity & autoimmune diseases affecting eye. ➢ Tumor immunology & immunotherapy. ➢ Transplantation immunology: ● Corneal immunogenicity and corneal transplantation							
Clinical Microbiology: ○ Normal flora of the eye. ○ Microbiological investigations and treatment of eye infections. ○ Mycobacterial and atypical mycobacterial infection ○ Ocular fugal infection ○ Ocular viral infection Chlamydia eye infection.	✓	✓	✓	✓	✓	✓	✓

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.

Subjects	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10
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 .		✓	✓	✓	✓	✓	✓	✓	✓	✓

Subjects	I1	I2	I3	I4	I5	I6	I7
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 coordinator: : Prof.Dr Adel El layeh

Head of the department: Prof.Dr Adel El layeh