كليـة الـطب
وحدةضمان الجودة

Faculty of Medicine
Quality Assurance Unit

Master (MSC) Degree Program and Courses Specifications for OPHTHALMOLOGY

(According to currently applied Credit pointsbylaws)

Ophthalmology
Faculty of medicine
Assiut University
2021-2022/2022-2023

Master degree of Ophthalmology

A. Basic Information

- **Program Title:** Master degree of Ophthalmology

- **Nature of the program: Single.**

- **Responsible Department:** Department of Ophthalmology-Faculty of Medicine-Assiut University.
- **Program Academic Director (Head of the Department)**
  Prof. *Mohamed Sayed Saad*
  Coordinator (s):
  - **Principle coordinator:** Prof. Wael Soliman
    Assistant coordinators:
    Dr: Dalia Ali Tohamy
    Dr Magdy Mohamed Mostafa
- **Internal evaluators:** Prof. *Mohamed Sayed Saad*
- **External evaluator:** Prof. Mohamed Al- Modather (Al- Azhar University, Assiut)
- **Date of Approval by the Faculty of Medicine Council of Assiut University:** 23-9-2014
  Date of most recent approval of program specification by the Faculty of Medicine Council of Assiut University: 27-11-2022
- **Total number of courses: 6 courses+ 0ne elective course**

B. Professional Information

1- Program aims

1/1 Provides the candidates with a fundamental knowledge base as well as clinical experience and competence in the area of Ophthalmology--and making appropriate referrals to a sub-specialist.

1/2. To graduate certified ophthalmologist who possesses knowledge judgment adaptability, clinical skills, technical facilities and personal characteristics to carry out the entire scope of Ophthalmic practice

1/3 To introduce candidates to the basics of scientific medical research.

1/4 Enable candidates to start professional careers as specialists in Egypt but recognized abroad.

1/5 To enable candidates to understand and get the best of published scientific research and do their own.

2- Intended learning outcomes (ILOs) *for the whole program*:

2/1Knowledge and understanding:

A. Explain the essential facts and principles of relevant basic sciences including Anatomyof the eye , Physiologythe eye and Optics and refractionrelatedtoOphthalmology.

B. Mention essential facts of clinically supportive sciences including – General Surgery andInternal Medicine and neurological diseases related to Ophthalmology.

C. Demonstrate sufficient knowledge of etiology, clinical picture, diagnosis, prevention and treatment of the commondiseases and situations related to Ophthalmology.

D. Give the recent and update developments in the pathogenesis, diagnosis, prevention and treatment of common diseases related to Ophthalmology.

E. Mention the basic ethical and medicolegal principles that should be applied in practice andrelevant to the sOphthalmology.

F. Mention the basicsand standardsof quality assurance to ensure good clinical practice in the field of Ophthalmology.

G. Mention the ethical and scientific principles of medical researchmethodology.

H. State the impact of common health problems in the field ofOphthalmology on the society and how good clinicalpractice improves these problems.

2/2 Intellectual outcomes

A.Correlate the facts of relevant basic and clinically supportive sciences with clinical reasoning, diagnosis and management of common diseases of the Ophthalmology.

B.Demonstrate an investigatory and analytic thinking approach (problem solving) to common clinical situations related to Ophthalmology.

C. Design and /or present a case or review (through seminars/journal clubs) in one or more of common clinical problems relevant to theOphthalmology..
D.Formulate management plans and alternative decisions in different situations in the field of the Ophthalmology.

2/3 Skills

2/3/1Practical skills (Patient Care)

A.Obtain proper history and examine patients in caring and respectfulbehaviors.
B. Make informed decisions about diagnostic and therapeutic interventions based on patient information and preferences, up-to-date scientific evidence, and clinical judgment for common conditions related to Ophthalmology.
C.Carry out patient management plans for common conditions related to Ophthalmology.
D. Use information technology to support patient care decisions and patient education in common clinical situations related to Ophthalmology.
E. Perform competently non invasive and invasive procedures considered essential for the Ophthalmology.
F. Provide health care services aimed at preventing health problems related to Ophthalmology.
G. Provide patient-focused care in common conditions related to Ophthalmology , while working with health care professionals, including those from other disciplines
H. Write competently all forms of patient charts and sheets including reports evaluating these charts and sheets (Write a consultation note, Inform patients of a diagnosis and therapeutic plan, completing and maintaining medical records)

2/3/2 General skills

Including:

- Practice-based Learning and Improvement
- Interpersonal and Communication Skills
- Professionalism
- Systems-based Practice

Practice-Based Learning and Improvement

A. Perform practice-based improvement activities using a systematic methodology (share in audits and risk management activities and use logbooks).
B.Appraises evidence from scientific studies.
C. Conduct epidemiological Studies and surveys.
D. Perform data management including data entry and analysis and using information technology to manage information, access on-line medical information; and support their own education.
E. Facilitate learning of students and other health care professionals including their evaluation and assessment.

Interpersonal and Communication Skills

F. Maintain therapeutic and ethically sound relationship with patients.

G. Elicit information using effective nonverbal, explanatory, questioning, and writing skills.
H. Provide information using effective nonverbal, explanatory, questioning, and writing skills.

I. Work effectively with others as a member of a health care team or other professional group

Professionalism

J. Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society

K. Demonstrate a commitment to ethical principles including provision or withholding of clinical care, confidentiality of patient information, informed consent, business practices

L. Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities

Systems-Based Practice

M. Work effectively in relevant health care delivery settings and systems including good administrative and time management.

N. Practice cost-effective health care and resource allocation that does not compromise quality of care.

O. Assist patients in dealing with system complexities.

3- Program Academic Reference Standards (ARS) (Annex2)

Academic standards for master degree in Ophthalmology

Assiut Faculty of Medicine developed master degree programs' academic standards for different clinical specialties.

In preparing these standards, the General Academic Reference Standards for post graduate programs (GARS) were adopted. These standards set out the graduate attributes and academic characteristics that are expected to be achieved by the end of the program.

These standards were approved by the Faculty Council on 17-6-2009. These standards were revised and approved without changes by the Faculty Council on 23-9-2014.

These standards were re-revised and approved without changes by the Faculty Council on 27-11-2022

4- Program External References (Benchmarks)

1. ACGME (Accreditation Council for Graduate Medical Education).
http://www.acgme.org/acWebsite/navPages/nav_Public.asp
2. International Council of Ophthalmology (ICO) curriculum for ophthalmology residents
http://www.icoph.org/refocusing_education/educational_programs/residency.html

Comparison between program and external reference		
Item	**Ophthalmology program**	**International Council of Ophthalmology (ICO) curriculum for ophthalmology residents**
Goals	Matched	Matched
ILOS	Matched	Matched
Duration	3-5 year	3 years
Requirement	Different	different
Program structure	Different	different

. Program Structure and Contents

A. Duration of program: 3 – 5 years
B. Structure of the program:
Total contact number of credit points 180 point (20 out of them for thesis)
Didactic# 40 (22.2 %), practical 120 (66.7%), thesis 20 (11.1%), total 180
First part

Didactic 14 (35 %), practical 24 (60 %), elective course 2 CP (5%), total 40

Second part

Didactic 24 (20%), practical 96 (80 %), total 120

 # Didactic (lectures, seminars, tutorial)

According the currently applied credit points bylaws:

Total courses 160 credit point

Compulsory courses: 98.9%

Elective course: 2 credit point =1.25%

	Credit points	% from total
Basic science courses	24	13.3%
Humanity and social courses	2	1.1%
Speciality courses	134	74.5%
Others (Computer, …)		
Field training	120	66.7%
Thesis	20	11.1%

C. Program Time Table

A. Duration of program 3 years maximally 5 years divided into

- **Part 1: (One year)**

  Program-related basic science courses and ILOs

  Students are allowed to sit the exams of these courses after 12 months from applying to the MSc degree.

  One elective course can be set during either the 1st or 2nd parts.

- **Thesis**

  For the M Sc thesis;

  MSc thesis subject should be officially registered within 6 months from application to the MSc degree,

  Discussion and acceptance of the thesis could be set after 12 months from registering the MSc subject;

  It should be discussed and accepted before passing the second part of examination)

- **Part 2 (2 years)**

Program –related speciality courses and ILOs
Students are not allowed to sit the exams of these courses before 3 years from applying to the MSc degree.
The students pass if they get 50% from the written exams and 60% from oral and clinical/practical exams of each course and 60% of summation of the written exams, oral and clinical/practical exams of each course
Total degrees 1900 marks.
700 marks for first part
1200 for second part
Written exam 40% - 70%.
Clinical and oral exams 30% - 60%.

D. Curriculum Structure: (Courses):

Curriculum Structure: (Courses / units/ rotations):

Year 1

The first year of the fellowship is primarily for basic science related medical knowledge, General surgery, internal medicine &Neurology (studied in specialized courses over 12 months in collaboration with basic sciences department, General surgery, internal medicine &Neurology departments of Assiut Faculty of Medicine) and a clinical year during which the fellows gain experience with a wide variety of patients in inpatient and outpatient settings, develop proficiency in the performance and appropriate utilization of various procedures, and develop proficiency in the utilization and interpretation of ophthalmic investigations. Throughout the year, emphasis is placed on developing: 1) an understanding of basic mechanisms and pathophysiology of ophthalmology diseases, and ophthalmic

emergency disorders; 2) the ability to efficiently formulate clinical assessments and therapeutic plans; 3) the ability to critically analyze the relevant medical literature; and 4) skills in communicating with nursing and medical staff as well as house staff.

The first year fellow spends the year rotating among five different services: 1) Ophthalmology outpatient clinics at Assiut University Hospital; 2) Ophthalmology inpatient unit at Assiut University Hospital; 3) Ophthalmology operation theater at Assiut University Hospital.

Years 2 &3

Although the primary focus of the second and third year is the development of skills and experience in research (see below), senior fellows continue to participate in clinical activities and certain procedures. First, they maintain their longitudinal outpatient and inpatient clinic experience throughout these years. Senior fellows will also actively participate in the regular weekly scientific seminars and collaborate with those fellows in their first year. In addition, fellows rotate through the different inpatient clinical services approximately two months on clinical rotations (outpatient clinics, Ophthalmology inpatient unit, and Ophthalmology Operation Theater. This rotation complements the previous inpatient and outpatient experiences.

Approximately by the end of the first year, fellows are expected to identify a research area in which the subsequent two years will be focused. Together, the trainee and supervisors develop a project for investigation that is of interest to the trainee and within the expertise of the faculty member; in certain instances, joint mentorship provided by two faculty members within the Division, or by one divisional faculty member and a collaborator from another unit, is appropriate. By the beginning of the second year, the fellow presents a conference in which he/she synthesizes existing knowledge, presents the problem for investigation, and describes the proposed plan of investigation. The faculty members and fellows in attendance provide feedback to the fellow and supervisors about the proposed project; this process of peer review provides a useful experience for the fellow and often strengthens the experimental approach.

During the second and third years, the trainee carries out the proposed work in the clinical research facilities of the faculty mentor(s). The trainee also benefits from interactions with other trainees, technicians, and collaborating investigators. The trainee also participates in scientific meetings and journal clubs specific to individual research groups. Presenting research findings at regional and national meetings and submitting work for publication are both important aspects of

the investigative endeavor. The trainee will receive guidance and specific assistance in learning to prepare data for oral and written presentation, to prepare graphics, and to organize talks and prepare slides. Throughout the research training period, it is anticipated that the fellow will assume increasing intellectual responsibility and technical independence.

Research Pathway

Selection of a research project and supervisors is subject to the approval of the Ophthalmology Department council approval and vice-Dean of post graduate studies of the faculty as officially regulated. Fellows may elect clinical trial, meta-Analysis/ systematic Review, clinical audit or epidemiological studies -based research training pathways. For all Master degree students, a research advisory committee will be selected by the fellow based on the approved regulatory rules of the faculty council. This committee will monitor the progress of research fellows and provide advice regarding research training and career development

Levels and courses of the program:

Courses and student work load list	Course Code	Credit points		
		Didactic#	training	total
First Part				
Basic science courses (8CP) 1. Course 1 (Anatomy of the eye) 2. Course 2 (Physiology of the eye) 3. Course 3 (Optics and refraction)	 OPH226A OPH226B OPH226C	 3 2.5 2.5		 3 2.5 2.5
General clinical compulsory courses (6 points) 4. Course 4(General Surgery) 5. Course 5 (Internal Medicine and neurological diseases)	 OPH211 OPH226D#	 3 2+1		 3 3
Elective courses*		2		2
Clinical training and scientific activities:				
Clinical training in General clinical compulsory courses (10 CP) General Surgery Internal Medicine and neurological diseases	 OPH211 OPH226D#		 5 4+1	10 5 5
Clinical training and scientific activities in Speciality course (14 CP) Ophthalmology	 OPH226E #		14	
Total the first part		16	24	40
Second Part		**Speciality course 24 CP** **Speciality Clinical Work 96 CP**		
Speciality Courses 6) Course 6 (Ophthalmology)* Eye Medicine Eye Surgery Eye Pathology	OPH226E#	24		24
Training and practical activities in speciality (96 CP) Ophthalmology Eye Medicine Eye Surgery Eye Pathology	OPH226E#		96	96
Total of the second part		24	96	120
Thesis	20 CP			
Total of the degree	180 CP			

 # Didactic (lectures, seminars, tutorial)

* Elective courses can be taken during either the 1st or 2nd parts.

Student work load calculation:

Work load hours are scheduled depending on the type of activities and targeted competences and skills in different courses

Elective Courses#:

- Medical statistics.
- Evidence based medicine.
- Medicolegal Aspects and Ethics in Medical Practice and Scientific Research
- Quality assurance of medical education
- Quality assurance of clinical practice.
- Hospital management

One of the above mentioned courses are prerequisites for fulfillment of the degree.

Thesis:

20 CP are appointed to the completion and acceptance of the thesis.

***Ophthalmology**

Units' Title' list	% from total	Level (Year)	Core Credit points		
			Didactic	training	Total
1) Unit 1 "Eye Medicine"	48,9	1,2&3	10.5	55	65.5
2) Unit 2 " Eye Surgery"	48.9	1,2&3	10.5	55	65.5
3) Unit 3 "Eye Pathology"	2.2	2&3	3	-	3
Total No. of Units:	5	24	24	110	134

** Different Courses ILOs are arranged to be studied and assessed in the 1st and 2nd parts of the program as scheduled in the program time table.

6. Courses Contents (Annex 1)

The competency based objectives for each course/module/rotation are specified in conjunction with teaching/training methods, requirements for achieving these objectives and assessment methods.

See Annex 1 for detailed specifications for each course/ module

7-Admission requirements

- **Admission Requirements (prerequisites) if any :**
  - **I. General Requirements:**
    - - MBBCh Degree from any Egyptian Faculties of Medicine
    - Equivalent Degree from medical schools abroad approved by the Ministry of Higher Education
    - One year appointment within responsible department (for non Assiut University based registrars)
  - **II. Specific Requirements:**
    - Fluent in English (study language)

VACATIONS AND STUDY LEAVE

The current departmental policy is to give working residents 2 week leave prior to first/ second part exams.

FEES:

As regulated by the postgraduate studies rules and approved by the faculty vice dean of post graduate studies and the faculty and university councils

8-Progression and completion requirements

- Examinations of the first part could be set at 12 months from registering to the MSc degree.
- Examination of the second part cannot be set before 3 years from registering to the degree.
- Discussion of the MSc thesis could be set after 1 year from officially registering the MSc subject before setting the second part exams.
- The minimum duration of the program is 3 years.

The students are offered the degree when:

1. Passing the exams of all basic science, elective and speciality courses of this program as regulated by the post graduates approved rules by the faculty council.
2. Completing all scheduled CP and log book (minimum 80%).
3. Discussion and acceptance of the MScthesis.

9- Program assessment methods and rules (Annex IV)

Method	ILOs measured
Written examinations: **Structured essay questions** **Objective questions:** **MCQ** **Problem solving**	**K & I**
Clinical: **Long/short cases** **OSCE**	**K ,I, P &G skills**
Structured oral	**K ,I&G skills**
Logbook assessment	**All**
Research assignment	**I &G skills**

Weighting of assessments:

Courses		Degrees			
First Part	Course Code	Written Exam	Oral Exam	Practical / Clinical Exam	Total
Basic science courses:					
3. Course (Anatomy of the eye)	OPH226A	75	75		150
4. Course (Physiology of the eye)	OPH226A	60	65		125
5. Course (Optics and refraction)	OPH226C	60	65		125
4. Course 4 (General Surgery	OPH211	60	45	45	150
5. Course 5 (Internal Medicine and neurological diseases)	OPH226D#	40+20	30+15	30+15	100+50
Total of the first part					700
Second Part					
Speciality Courses:					
Ophthalmology		600	300	300	1200
1) Course 6 (Ophthalmology)* Paper 1(Eye Medicine) Paper 2(Eye Surgery) Paper 3(Eye Pathology) Paper 4 (Ophthalmology) Commentary + MCQ	OPH226E#	 150 150 150 150			
Total of the degree					1900
Elective course		50	50		100

* 25% of the oral exam for assessment of logbook

*Ophthalmology Course

Units' **(Module)**Titles' list	% from total Marks	Degrees			
		Written Exam	Oral Exam*	Practical / Clinical Exam	Total
1) Unit (Module) 1 Eye Medicine	**43.75%**	225	150	150	525
2) Unit (Module) 2 Eye Surgery	**43.75%**	225	150	150	525
3) Unit (Module) 3 eye Pathology	**12.5%**	150			150
Total No. of Units (Modules):	**3**	600	300	300	1200

* 25% of the oral exam for assessment of logbook

700 marks for first part

1200 for second part

Written exam 50% 600 marks).

Clinical/practical and oral exams 50% (600 marks)

Elective course 100

Examination system:

First part:

- Written exam 3 hours in Anatomy of the eye + Oral exam
- Written exam 3 hours in Physiology of the eye + Oral exam
- Written exam 3 hours in Optics and refraction + Oral exam
- Written exam 3 hours in General Surgery + Oral exam+ Clinical exam
- Written exam 3 hours in Internal Medicine and Neurological diseases+ Oral exam+ Clinical exam.

➢ **Second part:**

- Written exam 4 papers 3 hours for each in Ophthalmology(Eye Medicine , Eye Surgery , Eye pathology and Ophthalmology [commentary ,MCQ] + Oral exam+ Clinical/practical exam

➢ **Elective courses**

- Written exam one paper 1 hour in Elective course + Oral & Practical exam

10-Program evaluation

By whom	Method	sample
Quality Assurance Unit	Reports Field visits	#
External Evaluator (s):According to department council External Examiner (s): According to department council	Reports Field visits	#
Stakeholders	Reports Field visits Questionnaires	#
Senior students	Questionnaires	#
Alumni	Questionnaires	#

#Annex 5 contains evaluation templates and reports (Joined in the departmental folder).

11-Declaration

We certify that all of the information required to deliver this program is contained in the above specification and will be implemented.

All course specifications for this program are in place.

Contributor	Name	Signature	Date
Program Principle Coordinator:			
Head of the Responsible Department (Program Academic Director):			

Annex 1, Specifications for Courses / Modules

Annex 1: specifications for courses/

Course 1 (Anatomy of the eye)

Name of department: ***Ophthalmology***
Faculty of medicine
Assiut University
2021-2022

1. Course data

- **Course Title: Anatomy of the eye**
- **Course code: OPH226A**
- **Speciality : Ophthalmology**
- **Number of credit point: 3 credit point, didactic 3 credit point (100%)**
- **Department (s) delivering the course: Ophthalmology Department**
- **Coordinator (s): Staff members of Ophthalmology Department as annually approved by departments councils**
- **Date last reviewed: September 2012**
- **Requirements (prerequisites) if any :**
  - **None**

- **Requirements from the students to achieve course ILOs are clarified in the joining log book.**

2. Course aims

The student should acquire the anatomic facts necessary for Ophthalmology.

3. Course intended learning outcomes (ILOs):

A- Knowledge and understanding

ILOs	**Methods of teaching/ learning**	***Methods of Evaluation***
A. Illustrate anatomic details of ▪ Cornea ▪ Conjunctiva ▪ lacrimal system ▪ Anterior chamber angle ▪ Sclera and episcleral structures ▪ Lens ▪ Choroids ▪ Iris ▪ Ciliary body ▪ Ciliary processes ▪ Optic nerve structure ▪ Optic nerve vasculature ▪ Cranial nerves 3,4,6,7 ▪ Anatomy of the macula ▪ Retina ▪ Vitreous ▪ EOMs ▪ Eyelids ▪ Orbit	- Lectures	- Written and oral examination - Log book
B. Mention the applied Ocular Anatomy		

B- Intellectual outcomes

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Correlates the facts of anatomy with clinical reasoning, diagnosis and management of common diseases related toOphthalmology.	-Lectures	Written and oral examination Log book

C- Practical skills

Practical: 0 credit points

D-General Skills

Practice-Based Learning and Improvement

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Use information technology to manage information, access on-line medical information; and support their own education.	-Observation and supervision -Written & oral communication	- Oral Exam - Logbook

Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
B. Write a report in the conditions mentioned in A.A.	-Observation and supervision -Written & oral communication	-Log book Oral exam Chick list

Professionalism

ILOs	Methods of teaching/ learning	Methods of Evaluation
C. Demonstrate a commitment to ethical principles	-Observation -Senior staff experience	-Log book - Oral exam

Systems-Based Practice

ILOs	Methods of teaching/ learning	Methods of Evaluation
D. Work effectively in relevant health care delivery settings and systems.	-Observation -Senior staff experience	-360o global rating

4. Course contents (topic s/modules/rotation
Course Matrix

Time Schedule: First Part

Topic	Covered ILOs			
	Knowledge A	Intellectual B	Practical skills C	General Skills D
Cornea	A,B	A	A,B	A-D
Conjunctiva	A,B	A	A,B	A-D
lacrimal system	A,B	A	A,B	A-D
Anterior chamber angle	A,B	A	A,B	A-D
Sclera and episcleral structures	A,B	A	A,B	A-D
Lens	A,B	A	A,B	A-D
Choroids	A,B	A	A,B	A-D
Iris	A,B	A	A,B	A-D
Ciliary body	A,B	A	A,B	A-D
Ciliary processes	A,B	A	A,B	A-D
Optic nerve structure	A,B	A	A,B	A-D
Optic nerve vasculature	A,B	A	A,B	A-D
Cranial nerves 3,4,6,7	A,B	A	A,B	A-D
Anatomy of the macula	A,B	A	A,B	A-D
Retina	A,B	A	A,B	A-D
Vitreous	A,B	A	A,B	A-D
EOMs	A,B	A	A,B	A-D
Eyelids	A,B	A	A,B	A-D
Orbit	A,B	A	A,B	A-D

5. Course methods of teaching/learning:

1. Lectures
2. Laboratory work
3. Observation and supervision
4. Written & oral communication
5. Senior staff experience

6.Course methods of teaching/learning: for students with poor achievements

1. Extra lecture
2. Extra laboratory work

7. Course assessment methods:

i. Assessment tools:

- Written and oral examination
- Log book

ii. Time schedule: At the end of the first part

iii. Marks: 150

8. List of references

i. Lectures notes

- Course notes
- Staff members print out of lectures and/or CD copies

ii. Essential books

- Kanski Text book of Ophthalmology

iii. Recommended books

American academy of ophthalmology books

iv. Periodicals, Web sites, … etc

- American Journal of Ophthalmology
- British journal of Ophthalmology
- Cornea Journal
- Cataract and refractive surgery Journal

v. others

None

9. Signatures

Course Coordinator:	**Head of the Department:**
Date:	**Date:**

Course 2 (Physiology of the eye)

Name of department: ***Ophthalmology***
Faculty of medicine
Assiut University
2021-2022

1. Course data

- **Course Title: Physiology**
- **Course code: OPH226B**
- **Speciality is Ophthalmology**
- **Number of credit points 2.5 credit point , didactic 2.5 credit point (100%)**
- **Department (s) delivering the course: Ophthalmology**
- **Coordinator (s): Staff members Ophthalmology Department as annually approved by department council**
- **Date last reviewed: September 2022**
- **Requirements (prerequisites) if any :**
  - **None**
- **Requirements from the students to achieve course ILOs are clarified in the joining log book.**

2. Course aims

The student should acquire the physiological background necessary for Ophthalmology

3. Course intended learning outcomes (ILOs):

A- Knowledge and understanding

ILOs	Methods of teaching/ learning	*Methods of Evaluation*
A. Describe *Physiologic* details of: ▪ Precorneal tear film ▪ Tears ▪ Accommodation ▪ Precorneal tear film ▪ Corneal sensation ▪ Tear secretion basic and reflex ▪ Aqueous humor composition ▪ Aqueous Formation ▪ Biodynamics of Aqueous ▪ Ocular circulation ▪ IOP ▪ Lens ▪ Ciliary body ▪ Iris ▪ aqueous humour ▪ Vitreous ▪ Cornea ▪ Retinal circulation ▪ types of ocular motility ▪ ocular motility control ▪ sympathetic innervation ▪ parasympathetic innervation	- Lectures	- Written and oral examination - Log book

▪ physiology of the Lid and conjunctiva ▪ physiology of the lacrimal apparatus, secretory and drainage parts ▪ Retina ▪ Choroids ▪ Sclera		

B- Intellectual outcomes

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Correlates the facts of physiology with clinical reasoning, diagnosis and management of common diseases related to Ophthalmology.	- Lectures	-Written and oral examination - Log book
B. Demonstrate an investigatory and analytic thinking (problem solving) approaches to common clinical situations related to Ophthalmology		

C- Practical skills

Practical: 0 credit points

D-General Skills

Practice-Based Learning and Improvement

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Use information technology to manage information, access on-line medical information; and support their own education.	-Observation and supervision -Written & oral communication	-Log book -Oral exam

Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
B. Write a report in the conditions mentioned in A.A	Observation and supervision Written & oral communication	-Log book - Oral exam - Chick list

Professionalism

ILOs	Methods of teaching/ learning	Methods of Evaluation
C. Demonstrate a commitment to ethical principles	-Observation - Senior staff experience	-Log book - Oral exam

Systems-Based Practice

ILOs	Methods of teaching/ learning	Methods of Evaluation
D. Work effectively in relevant health care delivery settings and systems.	-Observation - Senior staff experience	-360o global rating

4. Course contents (topic s/modules/rotation
Course Matrix

Time Schedule: First Part

Topic	Covered ILOs			
	Knowledge A	Intellectual B	Practical skills C	General Skills D
Precorneal tear film	A	A,B	-	A-D
Tears	A	A,B	-	A-D
Accommodation	A	A,B	-	A-D
Precorneal tear film	A	A,B	-	A-D
Corneal sensation	A	A,B	-	A-D
Tear secretion basic and reflex	A	A,B	-	A-D
Aqueous humor composition	A	A,B	-	A-D
Aqueous Formation	A	A,B	-	A-D
Biodynamics of Aqueous	A	A,B	-	A-D
Ocular circulation	A	A,B	-	A-D
IOP	A	A,B	-	A-D
Lens	A	A,B	-	A-D
Ciliary body	A	A,B	-	A-D
Iris	A	A,B	-	A-D
aqueous humour	A	A,B	-	A-D
Vitreous	A	A,B	-	A-D
Cornea	A	A,B	-	A-D
Retinal circulation	A	A,B	-	A-D
types of ocular motility	A	A,B	-	A-D
ocular motility control	A	A,B	-	A-D
sympathetic innervation	A	A,B	-	A-D

parasympathetic innervation	A	A,B	-	A-D
physiology of the Lid and conjunctiva	A	A,B	-	A-D
physiology of the lacrimal apparatus, secretory and drainage parts	A	A,B	-	A-D
Retina	A	A,B	-	A-D
Choroids	A	A,B	-	A-D
Sclera	A	A,B	-	A-D

5. Methods of teaching/learning:

1. Lectures
2. Observation and supervision
3. Written & oral communication
4. Senior staff experience

6. Methods of teaching/learning: for students with poor achievements

1. Extra Lectures

7. Course assessment methods:

i. Assessment tools:

1. Written and oral examination
2. Log book

ii. Time schedule: At the end of the first part

iii. Marks: 125

8. List of references

i. Lectures notes

- Course notes
- Staff members print out of lectures and/or CD copies

ii. Essential books

- Kanski Text book of Ophthalmology

iii. Recommended books

American academy of ophthalmology books

iv. Periodicals, Web sites, … etc

- American Journal of Ophthalmology
- British journal of Ophthalmology
- Cornea Journal
- Cataract and refractive surgery Journal

v. others

None

9. Signatures

Course Coordinator:	**Head of the Department:**
Date:	**Date:**

Course 3 (Optics and refraction)

Name of department: ***Ophthalmology***
Faculty of medicine
Assiut University
2021-2022

1. Course data

- **Course Title: Optics and refraction**
- **Course code: OPH226C**
- **Speciality is Ophthalmology**
- **Number of credit points:2.5 credit point, didactic 2.5 credit point (100%)**

Department (s) delivering the course: Ophthalmology

- **Coordinator (s): Staff members of Ophthalmology Department as annually approved by department council**
- **Date last reviewed: September 2022**
- **Requirements (prerequisites) if any :**
  - **None**
- **Requirements from the students to achieve course ILOs are clarified in the joining log book.**

2. Course aims

The student should acquire the professional knowledge about the optics and refraction of the eye.

3. Course intended learning outcomes (ILOs):

A- Knowledge and understanding

ILOs	Methods of teaching/ learning	*Methods of Evaluation*
A. Describe details of: • Lens formula. • Formation of the image. • Vergence of light (diopter, convergence, divergence, vergence formula). • Concave and convex. • Magnification (linear, angular, relative size, electronic). • Spherical decentration and prism power. • Lens form. • Binocular balancing. • Refracting the basic low vision patient. • Astigmatic lenses. • Cylindrical lenses. • sphero-cylinder lenses and surfaces. • cross cylinders (e.g., Jackson cross cylinder). • Maddox rod. • Toric lenses. • Conoid of Sturm. • Notation of lenses. • Spectacle prescribing.	-Didactic (lectures, seminars, tutorial)	- Written and oral examination - Log book

• Simple transposition. • Toric transposition. • Notation of prisms • Optics of prisms • Uses of prisms • Identification of prisms • Identification of unknown lenses. • Neutralization. • Focimeter. • Geneva lens measure. • Aberrations of lenses. • Correction of aberrations relevant to the eye (spherical, coma, astigmatism, distortion, pantoscopic tilt). • Duochrome test. • Lens materials. • hard lenses • soft lenses • Clinical optics. • Transmittance of light by the optic media. • Schematic and reduced eye. • Pupillary response and its effect on the resolution of the optical system (Styles-Crawford effect) • Visual acuity. • Distance and near acuity measurement. • Minimal (visible, perceptible, separable, legible). • Vernier acuity. • Contrast sensitivity. • Catoptric images. • Emmetropia. • Accommodation. • Purkinje shift. • Pinhole. • Ametropia.		

• Myopia. • Hypermetropia (hyperopia). • Astigmatism. • Anisometropia. • Aniseikonia (Knapp's rule). • Aphakia. • Optical parameters affecting retinal image size. • Accommodative problems. • Insufficiency. • Excess. • AC/A ratio. • Refractive errors. • Prevalence. • Inheritance. • Changes with age. • Surgically induced. • Correction of ametropia. • Spectacle lenses. • Contact lenses. • Intraocular lenses. • Principles of refractive surgery. • Problems of spectacles in aphakia. • Effect of spectacles and contact lens correction on accommodation and convergence (amplitude, near point, far point). • Effective power of lenses. • Back vertex distance. • Spectacle magnification. • Calculation of intraocular lens power. • Presbyopia (measuring for near adds). • Low vision aids. • High reading addition. • Magnifying lenses. • Telescopic aids -Galilean telescope,		

Kepleriantelescope. • Clinical refraction. • Retinoscopy. • Subjective refraction. • Measurement of back vertex distance (BVD). • Muscle balance tests. • Accommodative power. • Measurement of interpupillary distance (IPD). • Decentration of lenses and prismatic effect. • Best form lens. • Prescribing multifocal lenses. • Prescribing for children. • Cycloplegic refraction. • Instruments and tests. • Direct ophthalmoscope. • Indirect ophthalmoscope. • Retinoscope. • Focimeter. • Simple magnifying glass (loupe). • Lensmeter. • Glare and contrast testing. • Potential acuity meter. • Automated refractor. • Slit lamp biomicroscope (including methods of examination). • Stereo tests. • Corneal topographic measurements (placido disc, keratometer, automated corneal topography). • Applanation tonometer. • Specular microscope. • Operating microscope. • Zoom lens principle. • Corneal pachymeter. • Lens screen/Hess chart.		

• Synoptophore. • Lenses used for fundus biomicroscopy (panfunduscope, Goldmann lens, Hruby lens, 90 diopter lens, etc.). • Fundus camera. • Gonioscope. • Tonometers. • Color vision tests (Ishihara color plates; Hardy-Rand-Rittler plates, Farnsworth-Munsell testing).		

B- Intellectual outcomes

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Correlates the facts of Optics with clinical reasoning, diagnosis and management of common diseases related to Ophthalmology.	-Didactic (lectures, seminars, tutorial)	-Written and oral examination - Log book
B. Demonstrate an investigatory and analytic thinking (problem solving) approaches to common clinical situations related to Ophthalmology		

C- Practical skills

Practical: 0 credit points

D-General Skills

Practice-Based Learning and Improvement

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Use information technology to manage information, access on-line medical information; and support their own education.	-Observation and supervision -Written & oral communication	-Log book

Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
B. Write a report in the conditions mentioned in A.A	Observation and supervision Written & oral communication	-Log book -Oral exam

Professionalism

ILOs	Methods of teaching/ learning	Methods of Evaluation
C. Demonstrate a commitment to ethical principles	-Observation - Senior staff experience	- Log book -Oral exam

Systems-Based Practice

ILOs	Methods of teaching/ learning	Methods of Evaluation
D. Work effectively in relevant health care delivery settings and systems.	-Observation - Senior staff experience	-360o global rating

4. Course contents (topic s/modules/rotation
Course Matrix

Time Schedule: First Part

Topic	Covered ILOs			
	Knowledge A	Intellectual B	Practical skills B	General Skills C
• Lens formula.	A	A,B	A,B	A-D
• Astigmatic lenses.	A	A,B	A,B	A-D
• Notation of lenses.	A	A,B	A,B	A-D
• Notation of prisms	A	A,B	A,B	A-D
• Identification of unknown lenses.	A	A,B	A,B	A-D
• Aberrations of lenses.	A	A,B	A,B	A-D
• Lens materials.	A	A,B	A,B	A-D
• Clinical optics.	A	A,B	A,B	A-D
• Visual acuity.	A	A,B	A,B	A-D
• Ametropia.	A	A,B	A,B	A-D
• Optical parameters affecting retinal image size.	A	A,B	A,B	A-D
• Accommodative problems.	A	A,B	A,B	A-D
• Refractive errors.	A	A,B	A,B	A-D
• Correction of ametropia.	A	A,B	A,B	A-D
• Problems of spectacles in aphakia.	A	A,B	A,B	A-D
• Calculation of intraocular lens power.	A	A,B	A,B	A-D
• Refractive errors.	A	A,B	A,B	A-D
• Correction of ametropia.	A	A,B	A,B	A-D
• Problems of spectacles in aphakia.	A	A,B	A,B	A-D
• Calculation of intraocular lens power.	A	A,B	A,B	A-D

5. Course methods of teaching/learning: Methods of teaching/learning:

1. Didactic (lectures, seminars, tutorial)
2. Observation and supervision
3. Written & oral communication
4. Senior staff experience

6. Course methods of teaching/learning: for students with poor achievements

1. Extra didactic (lectures, seminars, tutorial

7. Course assessment methods:

i. Assessment tools:

3. Written and oral examination
4. Log book

ii. Time schedule: At the end of the first part

iii. Marks: 125

8. List of references

i. Lectures notes

- Course notes
- Staff members print out of lectures and/or CD copies

ii. Essential books

American academy of ophthalmology books

iii. Recommended books

none

iv. Periodicals, Web sites, … etc

v. others

None

9. Signatures

Course Coordinator:	**Head of the Department:**
Date: ……	**Date: ……**

Course 4 (General Surgery)

Name of department: ***Ophthalmology***
Faculty of medicine
Assiut University
2021-2022/2022-2023

1. Course data

- **Course Title: General Surgery**
- **Course code: OPH211**
- **Speciality is Ophthalmology**
- **Number of credit points: 8 credit point, didactic 3 credit points(37.5%), practical 5 credit points (62.5%)**
- **Department (s) delivering the course: General Surgery**
- **Coordinator (s): Staff members of General Surgery Department in conjunction with Ophthalmology department as annually approved by both departments councils**
- **Date last reviewed: September 2022**
- **Requirements (prerequisites) if any :**
  - **None**

- **Requirements from the students to achieve course ILOs are clarified in the joining log book.**

2. Course Aims

The student should acquire the basic Knowledge and surgical skills necessary for Ophthalmology in clinical reasoning, diagnosis and management of diseases of the eye

3. Course intended learning outcomes (ILOs):☺

A- Knowledge and understanding

ILOs	**Methods of teaching/ learning**	***Methods of Evaluation***
A. Describe the etiology, clinical picture, diagnosis and management of the following diseases and clinical conditions: - Thyroid diseases and thyroid eye disease - Facial fractures - Head Trauma	- Lectures	- Written, oral and examination - Log book
B. Mention the principles of (- Basic surgical techniques - Shock and resuscitation - Haemorrhage - Types of anesthesia - DD of neck swelling		
C. State update and evidence based Knowledge of - Basic surgical techniques		
D. Memorize the facts and principles of the relevant basic and clinically supportive sciences related to General Surgery.		
E. Mention the basic ethical and medicolegal principles revenant to the General Surgery.		
F. Mention the basics of quality assurance to ensure good clinical care in his field		

G. Mention the ethical and scientific principles of medical research		
H. State the impact of common health problems in the field of speciality on the society.		

B- Intellectual outcomes

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Correlates the facts of relevant basic and clinically supportive sciences with clinical reasoning, diagnosis and management of common diseases related toGeneral Surgery.	- Lectures	- Written, oral and examination - Log book
B. Demonstrate an investigatory and analytic thinking (problem solving) approaches to common clinical situations related to General Surgery.		
C. Design and present cases , seminars in common problem		
D-Formulate management plans and alternative decisions in different situations in the field of the General Surgery.		

C- Practical skills (Patient Care)

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Obtain proper history and examine patients in caring and respectful behaviors.	Clinical round Seminars Lectures Case presentation	-log book & portfolio -Written and oral exam - Clinical exam
B. Order the following non invasive and invasive diagnostic procedures	Clinical round with senior staff	- Procedure presentation

Routine appropriate Lab investigations related to conditions mentioned in A.A	Perform under supervision of senior staff	- Log book - Chick list
C. Interpret the following non invasive and invasive diagnostic procedures Routine appropriate Lab investigations related to conditions mentioned in A.A	Clinical round with senior staff Perform under supervision of senior staff	- Procedure presentation - Log book - Chick list
D. Perform the following non invasive and invasive therapeutic procedures Basic Surgical techniques	Clinical round with senior staff Perform under supervision of senior staff	- Procedure presentation - Log book - Chick list
E. Prescribe the following non invasive and invasive therapeutic procedures : proper treatment for conditions in A.A	Clinical round with senior staff Perform under supervision of senior staff	- Procedure presentation - Log book - Chick list
F. Carry out patient management plans for common conditions related to General Surgery**.**		
G. Use information technology to support patient care decisions and patient education in common clinical situations related to General Surgery**.**		
H. Provide health care services aimed at preventing health problems related to General Surgery like: Conditions mentioned in A.A		
I. Provide patient-focused care in common conditions related to General Surgery**,** while working with health care professionals, including those from other disciplines like: Conditions mentioned in A.A		

D-General Skills

Practice-Based Learning and Improvement

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Perform practice-based improvement activities using a systematic methodology(audit, logbook)	-Case log -Observation and supervision -Written & oral communication	--Log book & portfolio -Procedure & case presentation
B. Appraises evidence from scientific studies(journal club)		
C. Conduct epidemiological Studies and surveys.		
D. Perform data management including data entry and analysis.		
E. Facilitate learning of junior students and other health care professionals.		

Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
F. Maintain therapeutic and ethically sound relationship with patients.	-Clinical round -Seminars -Lectures -Case presentation	-Global rating -Procedure &case presentation -Log book & portfolio -Chick list
G. Elicit information using effective nonverbal, explanatory, questioning, and writing skills.		

H. Provide information using effective nonverbal, explanatory, questioning, and writing skills.		
I. Work effectively with others as a member of a health care team or other professional group.		
J. Present a case in Common problems of Internal Medicine.		
K. Write a report in Patients' medical reports		
L. Council patients and families about Conditions mentioned in A.A		

Professionalism

ILOs	Methods of teaching/ learning	Methods of Evaluation
M. Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society	-Observation Senior staff experience -Case taking	-Objective structured clinical examination -Patient survey
N. Demonstrate a commitment to ethical principles including provision or withholding of clinical care, confidentiality of patient information, informed consent, business practices		- 360o global rating
O. Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities		-Objective structured clinical examination -360o global rating

Systems-Based Practice

ILOs	Methods of teaching/ learning	Methods of Evaluation
P. Work effectively in relevant health care delivery settings and systems.	-Observation -Senior staff experience	-360o global rating
Q. Practice cost-effective health care and resource allocation that does not compromise quality of care.		-Check list evaluation of live or recorded performance
R. Assist patients in dealing with system complexities.		-360o global rating - Patient survey

4. Course contents (topic s/modules/rotation
Course Matrix

Time Schedule: First Part

Topic	Covered ILOs			
	Knowledge A	Intellectual B	Practical skills C	General Skills D
- Basic surgical techniques	B,C	A-D	D	-
- Types of anesthesia	B	A-D	A-C,E-I	-
- Thyroid diseases and thyroid eye disease	A-H	A-D	A- I	A-R
- DD of neck swelling	B	A-D	A-C,E-I	A-R
- Shock and resuscitation	B	A-D	A-C,E-I	A-R
- Haemorrhage	B	A-D	A-I	A-R
- Facial fractures	A-H	A-D	A-I	A-R
- Head Trauma	A-H	A-D	A -I	A-R

5. Course methods of teaching/learning:

1. Lectures
2. Clinical round
3. Seminars
4. Case presentation
5. Clinical round with senior staff
6. Perform under supervision of senior staf

6. Course methods of teaching/learning: for students with poor achievements

1. Clinical round
2. Seminars
3. Lectures
4. Case presentation
5. Clinical round with senior staff
6. Perform under supervision of senior staff

7. Course assessment methods:

i. Assessment tools:

1- Written , oral and clinical

2- Log book

ii. Time schedule: At the end of the first part

iii. Marks: 150

8. List of references

i. Lectures notes

- Course notes
- Staff members print out of lectures and/or CD copies

ii. Essential books

- Bailey & Love's Short Practice of Surgery, 27th Edition, 2018
- Abd Elazeem Refaat.

iii. Recommended books

American academy of ophthalmology books

iv. Periodicals, Web sites, … etc

v. others

None

9. Signatures

Course Coordinator:	**Head of the Department:**
Date:	**Date:**

Course 5 (Internal Medicine and Neurological diseases)

Course 5 unit 1 (Internal Medicine)

Name of department: ***Ophthalmology***
Faculty of medicine
Assiut University
2022-2023

1. Unit data

- **Unit Title: Internal Medicine**
- **Unit code: OPH226D#**
- **Speciality is Ophthalmology**
- **Number of credit points: 6 credit point, didactic 2 credit points (33.3%), practical 4 credit points (67.7%)**
- **Department (s) delivering the Unit: Internal Medicine**
- **Coordinator (s): Staff members of Internal Medicine Department in conjunction with Ophthalmology department as annually approved by both departments councils**
- **Date last reviewed: September 2022**
- **Requirements (prerequisites) if any :**
  - **None**
- **Requirements from the students to achieve Unit ILOs are clarified in the joining log book.**

2. Unit Aims

- To make the students able to be familiar with the diagnosis and management of common medical problems that may be encountered with Ophthalmology.

3. Unit intended learning outcomes (ILOs):

A- Knowledge and understanding

ILOs	**Methods of teaching/ learning**	***Methods of Evaluation***
A. Describe the etiology, clinical picture, diagnosis and management of the following diseases and clinical conditions: ▪ Diabetes mellitus and its complications ▪ Hypertension and its complications ▪ Renal diseases related to eye ▪ Hyperviscosity disorders	- Lectures	- Written, oral and examination - Log book
B. Mention the principles of (▪ Eye manifestations in rheumatological diseases ▪ pituitary gland		
C. State update and evidence based Knowledge of - Diabetes mellitus and its complications - Hypertension and its complications		
D. Memorize the facts and principles of the relevant basic and clinically supportive sciences related to Internal Medicine.		
E. Mention the basic ethical and medicolegal principles revenant to the Internal Medicine.		
F. Mention the basics of quality assurance to ensure good clinical care in his field		
G. Mention the ethical and scientific principles of medical research		
H. State the impact of common health problems in the field of speciality on the society.		

B- Intellectual outcomes

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Correlates the facts of relevant basic and clinically supportive sciences with clinical reasoning, diagnosis and management of common diseases related toInternal Medicine.	- Lectures	- Written, oral and examination - Log book
B. Demonstrate an investigatory and analytic thinking (problem solving) approaches to common clinical situations related to Internal Medicine.		
C. Design and present cases , seminars in common problem		
D-Formulate management plans and alternative decisions in different situations in the field of the Internal Medicine.		

C- Practical skills (Patient Care)

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Obtain proper history and examine patients in caring and respectful behaviors.	Clinical round Seminars Lectures Case presentation	-log book & portfolio -Written and oral exam - Clinical exam
B. Order the following non invasive and invasive diagnostic procedures Routine appropriate Lab investigations related to conditions mentioned in A.A	Clinical round with senior staff Perform under supervision of senior staff	- Procedure presentation - Log book - Chick list
C. Interpret the following non invasive and invasive	Clinical round	- Procedure

diagnostic procedures Routine appropriate Lab investigations related to conditions mentioned in A.A	with senior staff Perform under supervision of senior staff	presentation - Log book - Chick list
D. Perform the following non invasive and invasive therapeutic procedures Treatment for the conditions mentioned in A.A	Clinical round with senior staff Perform under supervision of senior staff	- Procedure presentation - Log book - Chick list
E. Prescribe the following non invasive and invasive therapeutic procedures : proper treatment for conditions in A.A	Clinical round with senior staff Perform under supervision of senior staff	- Procedure presentation - Log book - Chick list
F. Carry out patient management plans for common conditions related to Internal Medicine.		
G. Use information technology to support patient care decisions and patient education in common clinical situations related to Internal Medicine.		
H. Provide health care services aimed at preventing health problems related to Internal Medicine like: Conditions mentioned in A.A		
I. Provide patient-focused care in common conditions related to Internal Medicine, while working with health care professionals, including those from other disciplines like: Conditions mentioned in A.A		

D-General Skills

Practice-Based Learning and Improvement

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Perform practice-based improvement activities using a systematic methodology(audit, logbook)	-Case log -Observation and supervision -Written & oral communication	--Log book & portfolio -Procedure & case presentation
B.Appraises evidence from scientific studies(journal club)		
C. Conduct epidemiological Studies and surveys.		
D. Perform data management including data entry and analysis.		
E. Facilitate learning of junior students and other health care professionals.		

Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
F. Maintain therapeutic and ethically sound relationship with patients.	-Clinical round -Seminars -Lectures -Case presentation	-Global rating -Procedure &case presentation -Log book & portfolio -Chick list
G. Elicit information using effective nonverbal, explanatory, questioning, and writing skills.		

H. Provide information using effective nonverbal, explanatory, questioning, and writing skills.		
I. Work effectively with others as a member of a health care team or other professional group.		
J. Present a case in Common problems of Internal Medicine.		
K. Write a report in Patients' medical reports		
L. Council patients and families about Conditions mentioned in A.A		

Professionalism

ILOs	Methods of teaching/ learning	Methods of Evaluation
M. Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society	- Observation Senior staff experience -Case taking	-Objective structured clinical examination -Patient survey
N. Demonstrate a commitment to ethical principles including provision or withholding of clinical care, confidentiality of patient information, informed consent, business practices		- 360o global rating
O. Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities		-Objective structured clinical examination -360o global rating

Systems-Based Practice

ILOs	Methods of teaching/ learning	Methods of Evaluation
P. Work effectively in relevant health care delivery settings and systems.	-Observation -Senior staff experience	-360o global rating
Q. Practice cost-effective health care and resource allocation that does not compromise quality of care.		-Check list evaluation of live or recorded performance
R. Assist patients in dealing with system complexities.		-360o global rating - Patient survey

4. Unit contents (topic s/modules/rotation
Course Matrix

Time Schedule: First Part

Topic	Covered ILOs			
	Knowledge **A**	**Intellectual** B	**Practical skills** **C**	**General Skills** **D**
Diabetes mellitus and its complications	A,C-H	A-D	A-I	A-R
Hypertension and its complications	A,C-H	A-D	A-I	A-R
Eye manifestations in rheumatological diseases	B	A-D	A-I	A-R
Renal diseases related to eye	A,D-I	A-D	A-I	A-R
Hyperviscosity disorders	A,D-I	A-D	A-I	A-R
pituitary gland	B	A-D	A-I	A-R

5. Unit Methods of teaching/learning:

1. Lectures
2. Clinical round
3. Seminars
4. Case presentation
5. Clinical round with senior staff
6. Perform under supervision of senior staf

6. Unit Methods of teaching/learning: for students with poor achievements

7. Clinical round
1. Seminars
2. Lectures
3. Case presentation
4. Clinical round with senior staff
5. Perform under supervision of senior staff

7. Unit assessment methods:

i. Assessment tools:

1- Written, oral and clinical examination
2- Log book

ii. Time schedule: At the end of the first part

iii. Marks: 100

8. List of references

i. Lectures notes

- Course notes
- Staff members print out of lectures and/or CD copies

ii. Essential books

- Davidson's Principles and Practice of Medicine, 24th Edition, 2022

iii. Recommended books

- Kanaski Clinical ophthalmology (Ninth edition 2019-A Systematic Approach)
- American academy of ophthalmology Basic & clinical Science Course (CBCSE/2017.2018)

iv. Periodicals, Web sites, … etc

- American Journal of Ophthalmology
- British journal of Ophthalmology
- Cornea Journal
- Cataract and refractive surgery Journal

v. others

None

9. Signatures

Course Coordinator:	**Head of the Department:**
Date: ……	**Date: ……**

(Neurological diseases)

Name of department: ***Ophthalmology***
Faculty of medicine
Assiut University
2022-2023

1. Course data

- **Unit Title: Neurological diseases**
- **Unit code: OPH226D#**
- **Speciality is Ophthalmology**
- **Number of credit points:2 credit point, didactic 1 credit points (50%), practical 1 credit points (50%)**
- **Department (s) delivering the Unit : Neurology department**
- **Coordinator (s): Staff members of Neurology department in conjunction with Ophthalmology department as annually approved by both departments councils**
- **Date last reviewed: September 2022**
- **Requirements (prerequisites) if any :**
  - **None**
- **Requirements from the students to achieve Unit ILOs are clarified in the joining log book.**

2. Course Aims

- To make the students able to be familiar with the diagnosis and management of common neurological problems that may be encountered with Ophthalmology.

3. Course intended learning outcomes (ILOs):

A. Knowledge and understanding

ILOs	Methods of teaching/ learning	*Methods of Evaluation*
A. Describe the etiology, clinical picture, diagnosis and management of the following diseases and clinical conditions: ▪ Ophthalmoloplegia and Cranial nerve palsies related to the eye ▪ Eye manifestations of myasthenia gravis ▪ Multiple sclerosis ▪ Stroke	- Lectures	- Written, oral and examination - Log book
B. Mention the principles of ▪ Visual field changes associated with lesion related to the optic pathway ▪ Eye manifestations of myasthenia gravis		

B. Intellectual outcomes

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Correlates the facts of relevant basic and clinically supportive sciences with clinical reasoning, diagnosis and management of common diseases related to Neurological diseases.	- Lectures	- Written, oral and examination - Log book
B. Demonstrate an investigatory and analytic thinking (problem solving) approaches to common clinical		

situations related to Neurological diseases.		
C. Design and present cases , seminars in common problem		
D-Formulate management plans and alternative decisions in different situations in the field of the Neurological diseases.		

C. Practical skills (Patient Care)

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Obtain proper history and examine patients in caring and respectful behaviors.	Clinical round Seminars Lectures Case presentation	-log book & portfolio -Written and oral exam - Clinical exam
B. Order the following non invasive and invasive diagnostic procedures Routine appropriate Lab investigations related to conditions mentioned in A.A	Clinical round with senior staff Perform under supervision of senior staff	- Procedure presentation - Log book - Chick list
C. Interpret the following non invasive and invasive diagnostic procedures Routine appropriate Lab investigations related to conditions mentioned in A.A	Clinical round with senior staff Perform under supervision of senior staff	- Procedure presentation - Log book - Chick list
D. Perform the following non invasive and invasive therapeutic procedures Treatment for the conditions mentioned in A.A	Clinical round with senior staff Perform	- Procedure presentation - Log book - Chick list

	under supervision of senior staff	
E. Prescribe the following non invasive and invasive therapeutic procedures : proper treatment for conditions in A.A	Clinical round with senior staff Perform under supervision of senior staff	- Procedure presentation - Log book - Chick list
F. Carry out patient management plans for common conditions related to Neurological diseases.		
G. Use information technology to support patient care decisions and patient education in common clinical situations related to Neurological diseases.		
J. Provide health care services aimed at preventing health problems related to Neurological diseases like: Conditions mentioned in A.A		
K. Provide patient-focused care in common conditions related to Neurological diseases., while working with health care professionals, including those from other disciplines like: Conditions mentioned in A.A		

D. General Skills

Practice-Based Learning and Improvement

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Perform practice-based improvement activities using a systematic methodology(audit, logbook)	-Case log -Observation and supervision	--Log book & portfolio -Procedure & case

	-Written & oral communication	presentation
B. Appraises evidence from scientific studies(journal club)		
C. Conduct epidemiological Studies and surveys.		
D. Perform data management including data entry and analysis.		
E. Facilitate learning of junior students and other health care professionals.		

Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
F. Maintain therapeutic and ethically sound relationship with patients.	-Clinical round -Seminars -Lectures -Case presentation	-Global rating -Procedure &case presentation -Log book & portfolio -Chick list
G. Elicit information using effective nonverbal, explanatory, questioning, and writing skills.		
H. Provide information using effective nonverbal, explanatory, questioning, and writing skills.		
I. Work effectively with others as a member of a health care team or other professional group.		
J. Present a case in Common problems of Internal Medicine.		
K. Write a report in Patients' medical reports		
L. Council patients and families about Conditions mentioned in A.A		

Professionalism

ILOs	Methods of teaching/ learning	Methods of Evaluation
M. Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society	- Observation Senior staff experience -Case taking	-Objective structured clinical examination -Patient survey
N. Demonstrate a commitment to ethical principles including provision or withholding of clinical care, confidentiality of patient information, informed consent, business practices		- 360o global rating
O. Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities		-Objective structured clinical examination -360o global rating

Systems-Based Practice

ILOs	Methods of teaching/ learning	Methods of Evaluation
P. Work effectively in relevant health care delivery settings and systems.	-Observation -Senior staff experience	-360o global rating
Q. Practice cost-effective health care and resource allocation that does not compromise quality of care.		-Check list evaluation of live or recorded performance
R. Assist patients in dealing with system complexities.		-360o global rating - Patient survey

4. Course contents (topic s/modules/rotation
Course Matrix

Time Schedule: First Part

Topic	Covered ILOs			
	Knowledge **A**	**Intellectual** B	**Practical skills** **C**	**General Skills** **D**
Ophthalmoloplegia and Cranial nerve palsies related to the eye	A	A-D	A-I	A-R
Visual field changes associated with lesion related to the optic pathway	B	A-D	A-I	A-R
Eye manifestations of myasthenia gravis	A, B	A-D	A-I	A-R
Multiple sclerosis	A	A-D	A-I	A-R
Strok	A	A-D	A-I	A-R

5. Course Methods of teaching/learning:

1. Lectures
2. Clinical round
3. Seminars
4. Case presentation
5. Clinical round with senior staff
6. Perform under supervision of senior staf

6. Course Methods of teaching/learning: for students with poor achievements

1. Clinical round
2. Seminars
3. Lectures
4. Case presentation
5. Clinical round with senior staff
6. Perform under supervision of senior staff

7. Course assessment methods:

i. Assessment tools:

1. Written , oral and clinical examination
2. Log book

ii. Time schedule: At the end of the first part

iii. Marks:50

8. List of references

i. Lectures notes

- Course notes
- Staff members print out of lectures and/or CD copies

ii. Essential books

- Davidson's Principles and Practice of Medicine, 24th Edition, 2022

iii. Recommended books

- Kanaski Clinical ophthalmology (Ninth edition 2019-A Systematic Approach)
- American academy of ophthalmology Basic & clinical Science Course (CBCSE/2017.2018)

iv. Periodicals, Web sites, … etc

- American Journal of Ophthalmology
- British journal of Ophthalmology
- Cornea Journal
- Cataract and refractive surgery Journal

v. others

None

9. Signatures

Course Coordinator:	**Head of the Department:**
Date:	**Date:**

Course 6 Ophthalmology

Name of department: ***Ophthalmology***
Faculty of medicine
Assiut University
2022-2023

1. Course data

- **Course Title: Ophthalmology**
- **Course code: OPH226E#**
- **Speciality Ophthalmology**
- **Number of credit points:134, didactic 24 credit points (17.9%), practical 110 credit points (82.1%).**
- **Department (s) delivering the course:** Department of Ophthalmology- Faculty of Medicine- Assiut- EGYPT
- **Coordinator (s):**

  Course coordinator: Prof. Wael Soliman

  Assistant coordinator (s): Dr. Dalia M.A. Tohamy

  - **Date last reviewed: September 2022**
- **General requirements (prerequisites) if any :none**
- **Requirements from the students to achieve course ILOs are clarified in the joining log book.**

2. Course Aims

1-To enable candidates to acquire high level of clinical skills, bedside care skills, in addition to update medical knowledge as well as clinical experience and competence in the area of Ophthalmology.
2- To demonstrate the ability to provide patient-centered care that is appropriate, compassionate, and effective for treatment of Ophthalmology health problems and the promotion of health.
3-To give opportunities to evaluate and manage a broad variety Ophthalmology disorders.

3. Course intended learning outcomes (ILOs):

Course 1 Eye Medicine

A- Knowledge and understanding

ILOs	**Methods of teaching/ learning**	***Methods of Evaluation***
A. Describe the etiology, clinical picture, diagnosis and management of the following diseases and clinical conditions: <u>Retinoscopy ,refraction, contact lenses, refractive surgery, and low vision rehabilitation</u> ➢ Myopia ➢ Hypermetropia ➢ Astigmatism (regular, Irregular, keratoconus) ➢ presbyopia ➢ media opacities <u>contact lenses</u> ➢ CL complications <u>Cornea ,external diseases and refractive surgery</u> ➢ Red eye	Formal teaching Didactic Lectures tutorial Seminars Journal club	Written exam Oral exam Objective structured clinical examination evaluation of life or recorded performance

➢ Corneal ulcers ➢ infective bacterial, viral, fungal ➢ non infective allergic, degenerative, ischemic ➢ Corneal opacities superficial and deep ➢ Inflammatory lesions of the skin of the lid ➢ Chlazion, stye ➢ Blepharitis ➢ lid margin deformities ➢ Conj. Infections ➢ Degenerative lesions ➢ Xerosis <u>Glaucoma</u> ➢ Primary congenital glaucoma ➢ Primary angle closure glaucoma ➢ Secondary angle closure glaucoma ➢ Primary open angle glaucoma ➢ Secondary open angle glaucoma <u>Cataract</u> ➢ Senile cataract ➢ Complicated cataract ➢ Drug induced cataract ➢ Cataract in systemic diseases <u>Uveitis</u> ➢ Acute anterior and posterior uveitis. ➢ chronic uveitis ➢ inflammatory posterior uveitis <u>Eye in systemic diseases</u> ➢ Ocular changes in diabetes ➢ Ocular changes in Hypertension and atherosclerosis ➢ Ocular changes in Disthyroid disease <u>Neuro-Ophthalmology</u> ➢ Optic neuropathies ➢ Ocular motor neuropathies		

➢ Nystagmus ➢ Pupillary abnormalities ➢ Visual field defects . ➢ Myasthenia gravis ➢ Carotid-cavernous fistula. <u>Oculoplastic Surgery and Orbit</u> ➢ Common craniosynostoses and other congenital malformations. ➢ Epiphora in children ➢ Canaliculitis, dacyrocystitis, acute and chronic dacryoadenitis, preseptal cellulitis, and orbital cellulitis. ➢ Thyroid ophthalmopathy. <u>vitreo retinal diseases</u> ➢ Retinal detachment primary and secondary ➢ macular diseases •Age-related macular degeneration (ARMD). •Choroidal neovascularization •High myopia. •Macular holes. •Cystoid macular edema. •Central serous choroidopathy (retinopathy). ➢ retinal vascular diseases: •Arterial and venous obstructions. •Diabetic retinopathy. •Hypertensive retinopathy. •Peripheral retinal vascular occlusive disease. •Acquired retinal vascular diseases. ➢ Retinal pigment epithelial detachment. ➢ posterior uveitis syndromes and endophthalmitis <u>Pediatric Ophthalmology & Strabismus</u> ➢ Amblyopia		

➢ Strabismus in children ➢ Childhood cataract ➢ Congenital cataract ➢ Neonate Ophthamias ➢ Dacryocystitis in children <u>Ocular Oncology</u> ➢ Conjunctival tumours		
B. Mention the principles of • Fluorescein angiography • Indocyanine green angiography • Optical coherence tomography • Pachometry • Perimetry • Electrophysiological tests • Red reflex examination • Streak retinoscope use • Ophthalmic ultrasonography • Keratometer • Contact lens fitting	Formal teaching Didactic Lectures tutorial Seminars Journal club	Written exam Oral exam
C. State update and evidence based Knowledge of <u>Cornea ,external diseases and refractive surgery</u> • Red eye • Corneal ulcers infective bacterial, viral, fungal non infective allergic, degenerative, ischemic • Blepharitis • lid margin deformities • Degenerative lesions • Xerosis <u>Glaucoma</u> • Primary congenital glaucoma • Primary angle closure glaucoma • Secondary angle closure glaucoma	Formal teaching Didactic Lectures tutorial Seminars Journal club	Written exam Oral exam

• Primary open angle glaucoma • Secondary open angle glaucoma <u>Cataract</u> • Senile cataract • Complicated cataract • Drug induced cataract • Cataract in systemic diseases <u>Uveitis</u> • Acute anterior and posterior uveitis. • chronic uveitis • inflammatory posterior uveitis <u>Eye in systemic diseases</u> • Ocular changes in diabetes • Ocular changes in Hypertension and atherosclerosis • Ocular changes in Disthyroid disease <u>Neuro-Ophthalmology</u> • Optic neuropathies • Ocular motor neuropathies • Nystagmus • Carotid-cavernous fistula. <u>Oculoplastic Surgery and Orbit</u> • Thyroid ophthalmopathy. <u>vitreo retinal diseases</u> • Retinal detachment primary and secondary • macular diseases - Age-related macular degeneration (ARMD). - Choroidal neovascularization - Cystoid macular edema. - Central serous choroidopathy (retinopathy). • retinal vascular diseases: - Arterial and venous obstructions. - Diabetic retinopathy. - Hypertensive retinopathy.		

Pediatric Ophthalmology & Strabismus • Amblyopia • Strabismus in children • Congenital cataract		
D. Memorize the facts and principles of the relevant basic and clinically supportive sciences related to eye medicine		
E. Mention the basic ethical and medicolegal principles that should be applied in practice and are relevant to the eye medicine		
F. Mention the basics and standards of quality assurance to ensure good clinical practice in the field of Eye Medicine		
G. Mention the ethical and scientific principles of medical research methodology.		
H. State the impact of common health problems in the field of eye medicine on the societyand how good clinical practice improve these problems.		

B- Intellectual outcomes

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Correlates the facts of relevant basic and clinically supportive sciences with clinical reasoning, diagnosis and management of common diseases related toeye medicine**.**	-Clinical rounds -Senior staff experience	-Procedure & case presentation -log book & portfolio
B. Demonstrate an investigatory and analytic thinking (problem solving) approaches to common clinical situations related to eye medicine.		
C. Design and /or present a case or review (through seminars/journal clubs.) in one or more of common clinical problems relevant to the field of eye medicine		
D-Formulate management plans and alternative		

decisions in different situations in the field of the eye medicine		

C- Practical skills (Patient Care)

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Obtain proper history and examine patients in caring and respectful behaviors.	1-Formal teaching Lectures Seminar 2-service teaching outpatient -inpatient 3-operative	Written exam Oral exam Clinical exam Case log book&Portfolio Checklist evaluation of life or recorded performance record review
B. Order the following non invasive and invasive diagnostic procedures • Visual field • Fluorescein& Rose pingal staining of the cornea and conj • Conj swabs • Smear from the cornea and conj for microbiology study • Shirmer test • Tonometry • Gonioscopy • Placido disc examination keratoscopy • Corneal topography • Specular microscopy	service teaching -outpatient -inpatient case presentation Observation & supervision	

• Corneal topography
• Pachometry
• Ultrasonic biomicroscopy
• OCT
• VEP, ERG
• Systemic evaluation for cat extreaction
• AC tap vit. tap
• Blood picture
• Lipogram
• Blood sugar level
• Bone marrow
• Thyroid function
• Investigation for collagen diseases
• Investigation for Sarcoidosis
• MRI
• CT
• Plain x-ray
• Measurement of levator function,
• Exophthalmometry
• Investigation of epiphora probing syringing
• Dacryocysteography
• Thyroid function tests
• Fluorescein angiography
• Indocayanin green angiography
• Amsilar grid
• EUA for
  • IOP
  • Angle exam
  • Examination of the rtina
  • Lens exam
• Tran illumination for intraocular tumour.
• excision biopsy		

C. Interpret the following non invasive and invasive diagnostic procedures	service teaching	

• visual acuity • visual field • Red reflex examination • Streak retinoscope • Keratometers • Autorefractometers • Fluorescein& Rose pingal staining of the cornea and conj • conj swabs • Placido disc examination keratoscopy • Examination by the slit lamp • Smear from the cornea and conj for microbiology study • Shirmer test • Precorneal tear film break up time • Corneal topography • Pachometry • Specular microscopy	-outpatient -inpatient case presentation Observation & supervision	
D. Perform the following non invasive and invasive diagnostic and therapeutic procedures • Visual acuity • Examination by the slit lamp • Red reflex examination • Streak retinoscope • Autorefractometers • Fluorescein& Rose pingal staining of the cornea and conj • conj swabs • Placido disc examination keratoscopy • smear from the cornea and conj for microbiology study • shirmer test • precorneal tear film break up time	service teaching -outpatient -inpatient case presentation Observation & supervision	

• Corneal topography • Specular microscopy • Ultrasonic biomicroscopy • Tonometry • Gonioscopy • Biometry • AC tap vit. tap • Proptometry • Basic pupillary examination • Bbasic pharmacologic pupillary testing • Detection of light-near dissociation • Basic ocular motility examination: • Cranial nerve evaluation • Oocular alignment using simple techniques • Basic cover/uncover testing for tropia. • Alternate cover testing for phoria. • Simultaneous prism and cover testing. • Mmeasurement of deviations with prisms. • Fresnel and grind-in prisms. • duction and forced generation testing. • Assessment of saccade accuracy and pursuit and optokinetic testing. • Eyelid function measurements • Confrontational field testing. • Goldmannperimetry • Basic automated perimetry • Tangent screen test. • Basic direct, indirect, and magnified ophthalmoscopic examination of the optic disc. • Intravenous edrophonium (Tensilon) and Prostigmin tests for myasthenia gravis. • More advanced interpretation of neuro-radiologic images • temporal artery biopsy.		

• measurement of levator function, • Exophthalmometry • Investigation of epiphora probing syringing • Fundus drawings of the retina, showing complex vitreoretinal relationships and findings • Different fundus viewing lenses • More advanced measurements of strabismus . • Assessment of vision in more difficult strabismus patients . • Preoperative assessment of strabismus • EUA for -IOP -Angle exam -Examination of the rtina -Lens exam • Tran illumination for intraocular tumour. • excision biopsy <u>Retinoscopy ,refraction, contact lenses, refractive surgery, and low vision rehabilitation</u> • Prescription of glasses or contact lenses for correction of refractive errors <u>Cornea ,external diseases and refractive surgery</u> treatment of the following conditions • Red eye • Corneal ulcers • Inflammatory lesions of the skin of the lid • Infected chlazion, stye • Blepharitis • Conj. Infections • Degenerative lesions • Xerosis <u>Glaucoma</u> treatment of the following conditions • Primary angle closure glaucoma		

• Secondary angle closure glaucoma • Primary open angle glaucoma • Secondary open angle glaucoma <u>Cataract</u> treatment of the following conditions • Senile cataract • Complicated cataract • Drug induced cataract • Cataract in systemic diseases <u>Uveitis</u> treatment of the following conditions • Acute anterior and posterior uveitis. • chronic uveitis • inflammatory posterior uveitis; masquerade syndromes <u>Eye in systemic diseases</u> treatment of the following conditions • Ocular changes in diabetes • Ocular changes in Hypertension and atherosclerosis <u>Neuro-Ophthalmology</u> Medical, laser and/or surgical treatment of the following conditions • Optic neuropathies • Ocular motor neuropathies <u>Oculoplastic Surgery and Orbit</u> treatment of the following conditions • Canaliculitis, dacyrocystitis, preseptal cellulitis, and orbital cellulitis. <u>vitreo retinal diseases</u> treatment of the following conditions • macular diseases •Age-related macular degeneration (ARMD). •High myopia.		

•Cystoid macular edema. •Central serous choroidopathy (retinopathy). • retinal vascular diseases: •Arterial and venous obstructions. •Diabetic retinopathy. •Hypertensive retinopathy. •Acquired retinal vascular diseases. • Retinal pigment epithelial detachment. • posterior uveitis syndromes and endophthalmitis <u>Pediatric Ophthalmology & Strabismus</u> treatment of the following conditions • Childhood cataract • Congenital cataract • Neonate Ophthamias • Dacryocystitis in children		
E. Prescribe the following non invasive and invasive therapeutic procedures : <u>Retinoscopy ,refraction, contact lenses, refractive surgery, and low vision rehabilitation</u> • Prescription of glasses or contact lenses for correction of refractive errors <u>Cornea ,external diseases and refractive surgery</u> treatment of the following conditions • Red eye • Corneal ulcers • Inflammatory lesions of the skin of the lid • Infected chlazion, stye • Blepharitis • lid margin margin deformities • Conj. Infections • Degenerative lesions • Xerosis <u>Glaucoma</u>		

treatment of the following conditions • Primary congenital glaucoma • Primary angle closure glaucoma • Secondary angle closure glaucoma • Primary open angle glaucoma • Secondary open angle glaucoma <u>Cataract</u> treatment of the following conditions • Senile cataract • Complicated cataract • Drug induced cataract • Cataract in systemic diseases <u>Uveitis</u> treatment of the following conditions • Acute anterior and posterior uveitis. • chronic uveitis • inflammatory posterior uveitis; masquerade syndromes <u>Eye in systemic diseases</u> treatment of the following conditions • Ocular changes in diabetes • Ocular changes in Hypertension and atherosclerosis • Ocular changes in Disthyroid disease <u>Neuro-Ophthalmology</u> treatment of the following conditions • Optic neuropathies • Ocular motor neuropathies • Pupillary abnormalities <u>Oculoplastic Surgery and Orbit</u> treatment of the following conditions • Epiphora in children • Canaliculitis, dacyrocystitis, acute and chronic dacryoadenitis, preseptal cellulitis, and orbital		

cellulitis. <u>vitreo retinal diseases</u> treatment of the following conditions • macular diseases - Age-related macular degeneration (ARMD). - Choroidal neovascularization - High myopia. - Cystoid macular edema. - Central serous choroidopathy (retinopathy). • retinal vascular diseases: - Arterial and venous obstructions. - Diabetic retinopathy. - Hypertensive retinopathy. - Acquired retinal vascular diseases. • Retinal pigment epithelial detachment. • posterior uveitis syndromes and endophthalmitis <u>Pediatric Ophthalmology & Strabismus</u> treatment of the following conditions • Amblyopia • Strabismus in children • Childhood cataract • Congenital cataract • Neonate Ophthamias • Dacryocystitis in children		
F. Carry out patient management plans for common conditions related to eye medicine**.**		
G. Use information technology to support patient care decisions and patient education in common clinical situations related to eye medicine		
H. Provide health care services aimed at preventing health problems related to eye medicine like: • amblyopia • Complications of contact lens • Blindness and low vision		

I. Provide patient-focused care in common conditions related to eye medicine, while working with health care professionals, including those from other disciplines like: • Amblyopia • Contact lens use • Complications of high errors		
J. Write competently all forms of patient charts and sheets including reports evaluating these charts and sheets.(Write a consultation note, Inform patients of a diagnosis and therapeutic plan, completing and maintaining medical records)		

D-General Skills

Practice-Based Learning and Improvement

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Perform practice-based improvement activities using a systematic methodology (share in audit and risk management activities and use logbook).	-Case log -Observation and supervision -Written & oral communication	--Log book & portfolio -Procedure & case presentation
B. Appraises evidence from scientific studies(journal club)		
C. Conduct epidemiological Studies and surveys.		
D. Perform data management including data entry and analysis using information technology to manage information, access on-line medical information; and support their own education.		
E. Facilitate learning of junior students and other health care professionals including their evaluation and assessment.		

Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
F. Maintain therapeutic and ethically sound relationship with patients.	-Simulations -Clinical round -Seminars -Lectures -Case presentation -Hand on workshops	-Global rating -Procedure &case presentation -Log book & portfolio -Chick list
G. Elicit information using effective nonverbal, explanatory, questioning, and writing skills.		
H. Provide information using effective nonverbal, explanatory, questioning, and writing skills.		
I. Work effectively with others as a member of a health care team or other professional group.		
K. Present a case in <u>Low vision rehabilitation</u> • Telling patients and families about blindness • Telling about refractive srgery <u>Cornea ,external diseases and refractive surgery</u> • Counseling of patients with the above diseases <u>Glaucoma</u> • Patients with advanced glaucoma • Patients scheduled for glaucoma surgery		

<u>Cataract</u> • Patients for cataract surgery • Families of patients with pediatric cataract • Occupations where cataract is an occupational hazard • Cataract in trauma cases • Patients with diseases where cataract is a complication <u>Uveitis</u> • Patients and their families with uveitis syndromes • Blinding types of uveitis <u>Eye in systemic diseases</u> • Patients with diseases affecting the eye • Sight threatening conditions <u>Neuro-Ophthalmology</u> • Patients with ocular neurological disorders <u>Oculoplastic Surgery and Orbit</u> • Patients with ocular deformities • Patients with dysthyroid eye disease • Patients and parents of cases with ocular deformities <u>vitreo retinal diseases</u> • Parents and families of premature babies with ROP <u>Pediatric ophthalmology &Strabismus</u> • Families of children with - low vision - epiphora - strabismus - glaucoma		

- blindness Ocular Oncology The patients and their families in cases of ocular and adenexal tumors		
L. Write a report in Low vision rehabilitation • refractive surgery • Legal blindness • Cornea ,external diseases and refractive surger Cornea ,external diseases and refractive surgery • Ocular emergencies • Referral to other centers Glaucoma • Referral for glaucoma investigation • Referral for specialized centers Cataract • Referral of cataract cases in different situations • Consent for cataract surgery • Admission and discharge sheets Uveitis • Referral for pathological studies Eye in systemic diseases • Referral to different specialities • Consent in cases eye problems necessitating surgical or invasive therapy Neuro-Ophthalmology • Referral reports for investigation centers • Referral reports for higher centers Oculoplastic Surgery and Orbit		

• Referral for general surgery • Referral for medico legal aspects • Reference for plastic surgery <u>vitreo retinal diseases</u> • Parents and families of premature babies with ROP <u>Pediatric ophthalmology &Strabismus</u> • Referral to higher centers • Referral to other specialties • Ocular investigative centers <u>Ocular Oncology</u> • Referral to higher centers for - radiotherapy - Chemotherapy - Cosmetic reconstruction after surgery rehabilitation		
M.Council patients and families about Retinoscopy ,refraction, contact lenses, refractive surgery, and low vision rehabilitation • Errors of refraction • amblyopia • Contact lens uses • Refractive Surgery • Low vision rehabilitation Cornea • Microbial conj • Chemical trauma • Phototoxicity • Keratoplasty GLAUCOMA • congenital glaucoma • ACG • OAG • Ocular hypertension		

• Low tension glaucoma • secondary glaucomas • traumatic glaucomas Cataract • Cat in children and the expected complications • Cat with systemic diseases • Possible complications of cat surgery • Cat in relation to different types of trauma Uveites • recurrent uveitis • Complications of uveitis • Uveitis in children Eye in systemic diseases • Diabetic • Hypertensive • Dysthyroid • Blood diseases Neuro-Ophthalmology • Demyelinating diseases • Optic disc disorders • Paralytic squint Oculoplastic Surgery and Orbit •Orbital trauma •Epiphora and Epiphora in children •Major deformities of the face(traumatic and congenital) •Major ocular deformities(traumatic and congenital) •Dythyroidorbitopathy vitreo retinal diseases • Diabetic retinopathy • Tramatic vitreoretinopathies • Retinitis of prematurity		

• AMD Pediatric ophthalmology &Strabismus • Strabismus • ROP • Amblyopia • Congenital cataract • Congenital glaucoma • Congenital epiphora Ocular Oncology • various treatment options in a detailed, ethical, and compassionate manner different types of malignancy in different ages		

Professionalism

ILOs	Methods of teaching/ learning	Methods of Evaluation
M. Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society	-Observation Senior staff experience -Case taking	-Objective structured clinical examination -Patient survey
N. Demonstrate a commitment to ethical principles including provision or withholding of clinical care, confidentiality of patient information, informed consent, business practices		- 360o global rating
O. Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities		-Objective structured clinical examination -360o global rating

Systems-Based Practice

ILOs	Methods of teaching/ learning	Methods of Evaluation
P. Work effectively in relevant health care delivery settings and systems.	-Observation -Senior staff experience	-360o global rating
Q. Practice cost-effective health care and resource allocation that does not compromise quality of care.		-Check list evaluation of live or recorded performance
R. Assist patients in dealing with system complexities.		-360o global rating - Patient survey

Unit (Module) 2 Eye Surgery

A- Knowledge and understanding

ILOs	Methods of teaching/ learning	*Methods of Evaluation*
A. Describe the etiology, clinical picture, diagnosis and management of the following diseases and clinical conditions: <u>Retinoscopy ,refraction, contact lenses, refractive surgery, and low vision rehabilitation</u> ➢ Microbial keratitis with contact lens weares- ➢ keratitis with laser surgery ➢ Errors of refraction ➢ Amblyopia ➢ Blindness and low vision <u>Cornea ,external diseases and refractive surgery</u> ➢ Lid inflammations ➢ Lid tumours ➢ Conj infections ➢ Conj inflammations ➢ Conj degeneration ➢ Corneal ulcerative and non ulcerative lesions ➢ Different types of Keratitis <u>GLAUCOMA</u> ➢ Congenital glaucoma ➢ ACG ➢ OAG ➢ Ocular hypertension ➢ Low tension glaucoma ➢ secondary glaucomas lens induced glaucoma neovascular	Formal teaching Didactic Lectures tutorial Seminars Journal club	Written exam Oral exam Objective structured clinical examination evaluation of life or recorded performance

uveitic hemorrhagic silicon filled eyes ➢ traumatic glaucomas <u>Cataract</u> ➢ Different types of cat. ➢ Post operative complications of cat. surgery <u>Uveitis</u> ➢ anterior uveitis ➢ Posterior uveitis ➢ Uveitis in children <u>Eye in systemic diseases</u> ➢ Ocular complications of diabetes ➢ Ocular complications of blood disorders ➢ Ocular complications in endocrinal disorders <u>Neuro-Ophthalmology</u> ➢ Visual pathway abnormalities ➢ Myasthenia gravis ➢ 0ptic neuropathies <u>Oculoplastic Surgery and Orbit</u> ➢ Orbital inflammations ➢ Lacrimal gland disorders ➢ lacrimal drainage system canalicui ,sac , duct <u>vitreo retinal diseases</u> ➢ Retinal detachment ➢ Retinopatheies ➢ Maculopathies ➢ Intraocular infections ➢ Retinitis of prematurity ➢ Cryo burn ➢ Intraocular infections ➢ ROP <u>Pediatric ophthalmology &Strabismus</u> ➢ ROP ➢ Retinoblastoma		

➢ Neonate Ophthamias ➢ Dacryocystitis in children ➢ Amblyopia ➢ Strabismus in children ➢ Childhood cataract ➢ Congenital cataract <u>Oncology</u> ➢ Retinoblastoma ➢ Benign and malignant melanomas		
B. Mention the principles of • Fluorescein angiography • Indocyanine green angiography • Optical coherence tomography • Pentacam • Corneal topography • Pachometry • Perimetry • Electrophysiological tests • Red reflex examination • Streak retinoscope use • Ophthalmic ultrasonography • Keratometer • Contact lens fitting	Formal teaching Didactic Lectures tutorial Seminars Journal club	Written exam Oral exam
C. State update and evidence based Knowledge of <u>Retinoscopy ,refraction, contact lenses, refractive surgery, and low vision rehabilitation</u> - Microbial keratitis with contact lens weares- - keratitis with laser surgery <u>Cornea ,external diseases and refractive surgery</u> - Lid inflammations - Corneal ulcerative and non ulcerative lesions - Different types of Keratitis <u>GLAUCOMA</u> - Congenital glaucoma - ACG	Formal teaching Didactic Lectures tutorial Seminars Journal club	Written exam Oral exam

- OAG - Ocular hypertension - Low tension glaucoma - secondary glaucomas lens induced glaucoma neovascular uveitic hemorrhagic silicon filled eyes - traumatic glaucomas <u>Cataract</u> - Different types of cat. - Post operative complications of cat. surgery <u>Uveitis</u> - anterior uveitis - Posterior uveitis - Uveitis in children <u>Eye in systemic diseases</u> - Ocular complications of diabetes - Ocular complications of blood disorders - Ocular complications in endocrinal disorders <u>Neuro-Ophthalmology</u> - Visual pathway abnormalities - 0ptic neuropathies <u>Oculoplastic Surgery and Orbit</u> - Orbital inflammations - lacrimal drainage system canalicui ,sac , duct <u>vitreo retinal diseases</u> - Maculopathies - Intraocular infections - Intraocular infections <u>Pediatric ophthalmology &Strabismus</u> - Retinoblastoma - Dacryocystitis in children - Amblyopia		

- Strabismus in children - Childhood cataract - Congenital cataract <u>Oncology</u> - Retinoblastoma • Benign and malignant melanomas		
D. Memorize the facts and principles of the relevant basic and clinically supportive sciences related to eye surgery		
E. Mention the basic ethical and medicolegal principles that should be applied in practice and are relevant to the eye surgery		
F. Mention the basics and standards of quality assurance to ensure good clinical practice in the field of Eye Medicine		
G. Mention the ethical and scientific principles of medical research methodology.		
H. State the impact of common health problems in the field of eye surgery on the society and how good clinical practice improve these problems.		

B- Intellectual outcomes

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Correlates the facts of relevant basic and clinically supportive sciences with clinical reasoning, diagnosis and management of common diseases related toeye surgery**.**	-Clinical rounds -Senior staff experience	-Procedure & case presentation -log book & portfolio
B. Demonstrate an investigatory and analytic thinking (problem solving) approaches to common clinical situations related to eye surgery.		

C. Design and /or present a case or review (through seminars/journal clubs.) in one or more of common clinical problems relevant to the field of eye surgery		
D-Formulate management plans and alternative decisions in different situations in the field of the eye surgery		

C- Practical skills (Patient Care)

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Obtain proper history and examine patients in caring and respectful behaviors.	1-Formal teaching Lectures Seminar 2-service teaching outpatient -inpatient 3-operative	Written exam Oral exam Clinical exam Case log book& Portfolio Checklist evaluation of life or recorded performance record review
B. Order the following non invasive and invasive diagnostic procedures • grafting perforated corneal ulcers • Correction of recurrent pterygium • laser photocoagulation • simple vitrectomy • transscleralcryo and diaermy cautery • valvular surgery for glaucoma	service teaching -outpatient -inpatient case presentation Observation & supervision	

• excision of moderate sized and large benign eyelid lesions). • excision of moderate sized and large benign skin lesions • incision and drainage of recurrent or larger chalazia, • incision and drainage of multiple chalazion • retrobulbar hemorrhage, • basic lacrimal procedures below - Lacrimal drainage testing (irrigation, dye disappearance test). - Lacrimal intubation. • Dacryocystorhinostomy (external). • correction of entropion • electrocautery of the lashes • correction of ectropion • correction of ptosis • tarrsorrhaphy • dacryocystectomy • Open DCR • cyclocryotherapy • destruction or excision of conjunctival, corneal, and intraocular tumours.		
C. Interpret the following non invasive and invasive diagnostic procedures • Excisional biopsy of lid, conjunctival & corneal masses. • AC & vitreous tap. • Core vitrectomy for endophthalmitis. • Seidle test for leaking bleb after glaucoma surgeries. • Investigations for post refractive surgery ectasia	service teaching -outpatient -inpatient case presentation Observation & supervision	
D. Perform the following non invasive and invasive diagnostic and therapeutic procedures	service teaching	

• Visual acuity • Examination by the slit lamp • Red reflex examination • Streak retinoscope • Autorefractometers • Fluorescein& Rose pingal staining of the cornea and conj • conj swabs • Placido disc examination keratoscopy • smear from the cornea and conj for microbiology study • shirmer test • precorneal tear film break up time • Corneal topography • Specular microscopy • Ultrasonic biomicroscopy • Tonometry • Gonioscopy • Biometry • AC tap vit. tap • Proptometry • Basic pupillary examination • Bbasic pharmacologic pupillary testing • Detection of light-near dissociation • Basic ocular motility examination: • Cranial nerve evaluation • Oocular alignment using simple techniques • Basic cover/uncover testing for tropia. • Alternate cover testing for phoria. • Simultaneous prism and cover testing. • Mmeasurement of deviations with prisms. • Fresnel and grind-in prisms. • duction and forced generation testing.	-outpatient -inpatient case presentation Observation & supervision	

• Assessment of saccade accuracy and pursuit and optokinetic testing. • Eyelid function measurements • Confrontational field testing. • Goldmannperimetry • Basic automated perimetry • Tangent screen test. • Basic direct, indirect, and magnified ophthalmoscopic examination of the optic disc. • Intravenous edrophonium (Tensilon) and Prostigmin tests for myasthenia gravis. • More advanced interpretation of neuro-radiologic images • temporal artery biopsy. • measurement of levator function, • Exophthalmometry • Investigation of epiphora probing syringing • Fundus drawings of the retina, showing complex vitreoretinal relationships and findings • Different fundus viewing lenses • More advanced measurements of strabismus . • Assessment of vision in more difficult strabismus patients . • Preoperative assessment of strabismus • EUA for -IOP -Angle exam -Examination of the rtina -Lens exam • Tran illumination for intraocular tumour. • excision biopsy • Contact lenses fitting • corneal topography to fit contact lenses • contact lenses for strait forward cases		

• appropriate CL selection • injection of local anaethsia for the lid and conj surgery • removal of corneal &conj FB • conj graft or flap or amniotic membrane for corneal ulcers • application of corneal glue • removal of Pterygium • subconj injection antibiotic steroid mrdricaine • electrocautery of the lashes • correction of ectropion snellens • correction of recurrent entropion • correction of symblepharon • tarsorrhaphy • curette evacuation of chlazion • evacuation of stye • correction of ptosis • Simple repair of ocular trauma • Superficial lamellar keratectomy • laser iridectomy • Trabeculectomy • Details of local anaethesia • Use the operating microscope for basic cataract surgery - ECCE - ICCE • IOL implantation • Secondary IOL implantation • YAG laser use • Management of postoperative complications of cat ext. • Management of opacified posterior cap • Prescribe and perform - phacoemulsification		

- Lensectomy - Cat in silicon filled eyes • steroids in the treatment of uveitis by various routes. • complications of uveitis therapy (e.g., cataract, glaucoma • lid suture • tarsorrhaphy • correction of simple cases of paralytic squint • treatment of simple cases of optic nerve disorders • open DCR • intra vitreal injections • cyclocryotherapy • Performig basic extraocular muscle surgery: • Performing the following strabismus surgeries: - Recession. - Resection. - Transposition. • Management the complications of strabismus surgery. • Syringing and probing of children with epiphora • excision of conjunctival tumours • Performing an enucleation • medical treatment for POAG • medical treatment for PACG • medical treatment for secondary glaucomas		
E. Prescribe the following non invasive and invasive therapeutic procedures : • grafting perforated corneal ulcers • Correction of recurrent pterygium • Repair of ocular trauma • laser surgery for glaucoma • laser photocoagulation		

• excision of moderate sized and large benign eyelid lesions). • excision of moderate sized and large benign skin lesions • incision and drainage of recurrent or larger chalazia, • incision and drainage of multiple chalazion • Retrobulbar hemorrhage, • basic lacrimal procedures below - Lacrimal drainage testing (irrigation, dye disappearance test). - Lacrimal intubation. • Dacryocystorhinostomy (external). • correction of entropion • electrocautery of the lashes • correction of ectropion • correction of ptosis • tarrsorrhaphy • dacryocystectomy • Open DCR • laser activity for retinopathies PRP focal • simpler vitrectomy • intra vitreal injections • cyclocryotherapy • destruction or excision of conjunctival, corneal, tumours.		
F. Carry out patient management plans for common conditions related to eye surgery**.**		
G. Use information technology to support patient care decisions and patient education in common clinical situations related to eye surgery.		
H. Provide health care services aimed at preventing health problems related to eye surgery like: • amblyopia		

• Complications of contact lens • Blindness and low vision		
I. Provide patient-focused care in common conditions related to eye surgery, while working with health care professionals, including those from other disciplines like: ➢ Amblyopia ➢ Complications of high errors of refraction ➢ Microbial conj ➢ Chemical trauma ➢ Physical injuries ➢ traumatic glaucomas ➢ traumatic cat ➢ Complications of uveitis ➢ Toxic neuritis ➢ Nutritional neuropathies ➢ Orbital trauma ➢ Ocular trauma ➢ mechanical chemical occupational ➢ Complications of lid deformities ➢ Diabetic retinopathy ➢ Intraocular infection ➢ Infectious diseases keratitis,conjunctivitis,adenexal infection		
J. Write competently all forms of patient charts and sheets including reports evaluating these charts and sheets.(Write a consultation note, Inform patients of a diagnosis and therapeutic plan, completing and maintaining medical records)		

D-General Skills

Practice-Based Learning and Improvement

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Perform practice-based improvement activities using a systematic methodology (share in audit and risk management activities and use logbook).	-Case log -Observation and supervision -Written & oral communication	--Log book & portfolio -Procedure & case presentation
B. Appraises evidence from scientific studies(journal club)		
C. Conduct epidemiological Studies and surveys.		
D. Perform data management including data entry and analysis using information technology to manage information, access on-line medical information; and support their own education.		
E. Facilitate learning of junior students and other health care professionals including their evaluation and assessment.		

Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
F. Maintain therapeutic and ethically sound relationship with patients.	-Simulations -Clinical round -Seminars -Lectures -Case presentation -Hand on workshops	-Global rating -Procedure &case presentation -Log book & portfolio -Chick list
G. Elicit information using effective nonverbal, explanatory, questioning, and writing skills.		
H. Provide information using effective nonverbal, explanatory, questioning, and writing skills.		
I. Work effectively with others as a member of a health care team or other professional group.		
K. Present a case in <u>Low vision rehabilitation</u> • Telling patients and families about blindness • Telling about refractive surgery <u>Cornea ,external diseases and refractive surgery</u> • Counseling of patients with the above diseases <u>Glaucoma</u> • Patients with advanced glaucoma • Patients scheduled for glaucoma surgery <u>Cataract</u> • Patients for cataract surgery • Families of patients with pediatric cataract • Occupations where cataract is an occupational hazard • Cataract in trauma cases		

• Patients with diseases where cataract is a complication <u>Uveitis</u> • Patients and their families with uveitis syndromes • Blinding types of uveitis <u>Eye in systemic diseases</u> • Patients with diseases affecting the eye • Sight threatening conditions <u>Neuro-Ophthalmology</u> • Patients with ocular neurological disorders <u>Oculoplastic Surgery and Orbit</u> • Patients with ocular deformities • Patients with dysthyroid eye disease • Patients and parents of cases with ocular deformities <u>vitreo retinal diseases</u> • Parents and families of premature babies with ROP <u>Pediatric ophthalmology &Strabismus</u> • Families of children with - low vision - epiphora - strabismus - glaucoma - blindness <u>Ocular Oncology</u> The patients and their families in cases of ocular and adenexal tumors		
L. Write a report in <u>Low vision rehabilitation</u> • refractive surgery • Legal blindness • Cornea ,external diseases and refractive surgery <u>Cornea ,external diseases and refractive surgery</u>		

• Ocular emergencies • Referral to other centers <u>Glaucoma</u> • Referral for glaucoma investigation • Referral for specialized centers <u>Cataract</u> • Referral of cataract cases in different situations • Consent for cataract surgery • Admission and discharge sheets <u>Uveitis</u> • Referral for pathological studies <u>Eye in systemic diseases</u> • Referral to different specialities • Consent in cases eye problems necessitating surgical or invasive therapy <u>Neuro-Ophthalmology</u> • Referral reports for investigation centers • Referral reports for higher centers <u>Oculoplastic Surgery and Orbit</u> • Referral for general surgery • Referral for medico legal aspects • Reference for plastic surgery <u>vitreo retinal diseases</u> • Parents and families of premature babies with ROP <u>Pediatric ophthalmology &Strabismus</u> • Referral to higher centers • Referral to other specialties • Ocular investigative centers <u>Ocular Oncology</u> • Referral to higher centers for - radiotherapy - Chemotherapy - Cosmetic reconstruction after surgery		

rehabilitation		
M.Council patients and families about <u>Low vision rehabilitation</u> Telling patients and families about blindness • Telling patients and families about blindness • Telling about refractive srgery <u>Cornea ,external diseases and refractive surgery</u> • Counseling of patients with the above diseases <u>Glaucoma</u> • Patients with advanced glaucoma • Patients scheduled for glaucoma surgery <u>Cataract</u> • Patients for cataract surgery • Families of patients with pediatric cataract • Occupations where cataract is an occupational hazard • Cataract in trauma cases • Patients with diseases where cataract is a complication <u>Uveitis</u> • Patients and their families with uveitis syndromes • Blinding types of uveitis <u>Eye in systemic diseases</u> • Patients with diseases affecting the eye • Sight threatening conditions <u>Neuro-Ophthalmology</u> • Patients with ocular neurological disorders <u>Oculoplastic Surgery and Orbit</u> • Patients with ocular deformities • Patients with dysthyroid eye disease • Patients and parents of cases with ocular deformities <u>vitreo retinal diseases</u>		

• Parents and families of premature babies with ROP Pediatric ophthalmology &Strabismus • Families of children with - low vision - epiphora - strabismus - glaucoma - blindness Ocular Oncology • The patients and their families in cases of ocular and adenexal tumors		

Professionalism

ILOs	Methods of teaching/ learning	Methods of Evaluation
M. Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society	-Observation Senior staff experience -Case taking	-Objective structured clinical examination -Patient survey
N. Demonstrate a commitment to ethical principles including provision or withholding of clinical care, confidentiality of patient information, informed consent, business practices		- 360o global rating
O. Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities		-Objective structured clinical examination -360o global rating

Systems-Based Practice

ILOs	Methods of teaching/ learning	Methods of Evaluation
P. Work effectively in relevant health care delivery settings and systems.	-Observation -Senior staff experience	-360o global rating
Q. Practice cost-effective health care and resource allocation that does not compromise quality of care.		-Check list evaluation of live or recorded performance
R. Assist patients in dealing with system complexities.		-360o global rating - Patient survey

Unit (Module) 3 Eye Pathology

A- Knowledge and understanding

ILOs	Methods of teaching/ learning	*Methods of Evaluation*
A. Describe pathological principles of: • Eyelid • Conjunctiva • Cornea • iris • Lens • Ciliary body • Ciliary processes • Anterior chamber angle • Sclera and episcleral structures • vitreous • Optic nerve • Visual Pathway • Macula • Retina • Choroids • Orbit	-Lectures	-Written and oral examination - Log book

B- Intellectual outcomes

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Correlates the facts of pathology and microbiology with clinical reasoning, diagnosis and management of common diseases related to Ophthalmology	Didactic (lectures, seminars, tutorial)	-Written and oral examination -Log book
B. Demonstrate an investigatory and analytic thinking (problem solving) approaches to common clinical situations related to Ophthalmology		

C- Practical skills

Practical: 0 credit point

D-General Skills

Practice-Based Learning and Improvement

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Use information technology to manage information, access on-line medical information; and support their own education	-Observation and supervision -Written and oral communication	Log book Oral exam

Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
B. Write a report in common condition mentioned in A.A and A.B	-Clinical round -Seminars -Lectures	- Log book Oral exam -Log book and Portfolios -Chick list

Professionalism

ILOs	Methods of teaching/ Learning	Methods of Evaluation
C. Demonstrate a commitment to ethical principles	Observation Senior staff experience Case taking	Oral exam Log book

Systems-Based Practice

ILOs	Methods of teaching/ learning	Methods of Evaluation
D. Work effectively in different health care delivery settings and systems.	-Observation -Senior staff experience	60o global rating

4. Course contents (topic s/modules/rotation
Course Matrix

Time Schedule: Second part

Topic	Covered ILOs			
	Knowledge A	**Intellectual** B	**Practical skill** C	**General Skills** D
Unit 1 (Eye Medicine)				
Retinoscopy ,refraction, contact lenses, refractive surgery, and low vision rehabilitation	A-H	A-D	A-J	A-R
Contact lenses Refractive surgery	A-H	A-D	A-J	A-R
Cornea ,external diseases and refractive surgery	A-H	A-D	A-J	A-R
Glaucoma	A-H	A-D	A-J	A-R
Cataract	A-H	A-D	A-J	A-R
Uveitis	A-H	A-D	A-J	A-R
Eye in systemic diseases	A-H	A-D	A-J	A-R
Neuro-Ophthalmology	A-H	A-D	A-J	A-R
Oculoplastic Surgery and Orbit	A-H	A-D	A-J	A-R
vitreo retinal diseases	A-H	A-D	A-J	A-R
Pediatric Ophthalmology & Strabismus	A-H	A-D	A-J	A-R
Ocular Oncology	A-H	A-D	A-J	A-R
Unit 2 (Eye surgery)				
Retinoscopy ,refraction, contact lenses, refractive surgery, and low vision rehabilitation	A-H	A-D	A-J	A-R
Cornea ,external diseases	A-H	A-D	A-J	A-R

and refractive surgery				
Glaucoma	A-H	A-D	A-J	A-R
Cataract	A-H	A-D	A-J	A-R
Uveitis	A-H	A-D	A-J	A-R
Eye in systemic diseases	A-H	A-D	A-J	A-R
Neuro-Ophthalmology	A-H	A-D	A-J	A-R
Oculoplastic Surgery and Orbit	A-H	A-D	A-J	A-R
vitreo retinal diseases	A-H	A-D	A-J	A-R
Pediatric Ophthalmology & Strabismus	A-H	A-D	A-J	A-R
Oncology	A-H	A-D	A-J	A-R
Unit 3 (Pathology & Microbiology)				
Eyelid	A	A,B	-	A-D
Conjunctiva	A	A,B	-	A-D
Cornea	A	A,B	-	A-D
iris	A	A,B	-	A-D
Lens	A	A,B	-	A-D
Ciliary body	A	A,B	-	A-D
Ciliary processes	A	A,B	-	A-D
Anterior chamber angle	A	A,B	-	A-D
Sclera and episcleral structures	A	A,B	-	A-D
vitreous	A	A,B	-	A-D
Optic nerve	A	A,B	-	A-D
Visual Pathway	A	A,B	-	A-D
Macula	A	A,B	-	A-D
Retina	A	A,B	-	A-D
Choroids	A	A,B	-	A-D
orbit	A	A,B	-	A-D
Occular infections	B	A,B	-	A-D

5. Course methods of teaching/learning:

1. Didactic; Lectures
2. Clinical rounds
3. Seminars Clinical rotations
4. (service teaching) Observation
5. Post graduate teaching
6. Hand on workshops
7. Perform under supervision of senior staff
8. Simulations
9. Case presentation
10. Case Taking

6. Course methods of teaching/learning: for students with poor achievements

1. Extra Didactic (lectures, seminars, tutorial) according to their needs
2. Extra training according to their needs

7. Course assessment methods:

i. Assessment tools: Clinical examination

1. Written and oral examination
2. Chick list
3. log book & portfolio
4. Procedure/case presentation
5. One MCQ examination in the second year and one in the third year
6. Objective structured clinical examination
7. Check list evaluation of live or recorded performance
8. Patient survey

360o global rating

ii. Time schedule: A t the end of the second year

iii. Marks: 1200

8. List of references

i. Lectures notes

Staff members print out of lectures and/or CD copies.

ii. Essential books

1- American academy of ophthalmology Basic & clinical Science Course (CBCSE/2017.2018)
2- Clinical Ophthalmology: A Systematic Approach , 2023
3- The Wills Eye Manual: Office and Emergency Room Diagnosis and Treatment of Eye Disease (Rhee, The Wills Eye Manual) 4th Edition, 2004

iii. Recommended books

1- Ophthalmology (Fifth edition 2018).
2- Oxford text book of ophthalmology 3rd Edition 2014, oxford university

iv. Periodicals, Web sites, … etc

- Current opinion in ophthalmology.
- Am j ophthalmol.
- Br j ophthalmol.
- Acta ophthalmologica

v. Others

none

9. Signatures

Course Coordinator:	**Head of the Department:**
Date:	**Date:**

ANNEX 2
Program Academic Reference Standards (ARS)

1- Graduate attributes for master degree in Ophthalmology

***The Graduate (after residence training and master degree years of study) must*:**

1- Have the capability to be a scholar, understanding and applying basics, methods and toolsof scientific research and clinical audit in Ophthalmology**.**

2- Appraise and utilise scientific knowledge to continuously update and improve clinical practice in related speciality.

3- Acquire sufficient medical knowledge in the basic biomedical, clinical, behavioural and clinical sciences, medical ethics and medical jurisprudence and apply such knowledge in patient care in the field of Ophthalmology.

4- Provide patient care that is appropriate, effective and compassionate for dealing with common health problems and health promotion using evidence-based and updated information.

5- Identify and share to solve health problems in his speciality.

6- Acquire all competencies –including the use of recent technologies- that enable him to provide safe, scientific, and ethical and evidence based clinical care including update use of new technology in Ophthalmology.

7- Demonstrate interpersonal and communication skills that ensure effective information exchange with individual patients and their families and teamwork with other health professions, the scientific community and the public.

8- Function as supervisor, and trainer in relation to colleagues, medical students and other health professions.

9- Acquire decision making capabilities in different situations related to Ophthalmology

10- Show responsiveness to the larger context of the health care system, including e.g. the organisation of health care, partnership with health care providers and managers, practice of cost-effective health care, health economics, and resource allocations.

11- Be aware of public health and health policy issues and share in system-based improvement of health care.

12- Show appropriate attitudes and professionalism.

13- Demonstrate skills of lifelong learning and maintenance of competence and ability for continuous medical education and learning in subsequent stages in Ophthalmology or one of its subspecialties.

2- Competency based Standards for clinical master degree graduates

2.1- Knowledge and understanding

By the end of the program, the graduate should demonstrate satisfactory knowledge and understanding of

2-1-A- Established basic, biomedical, clinical, epidemiological and behavioral sciences related conditions, problem and topics.

2-1-B- The relation between good clinical care of common health problems in the speciality and the welfare of society.

2-1-C- Up to date and recent developments in common problems related to Ophthalmology.

2-1-D- Ethical and medicolegal principles relevant to practice in Ophthalmology**.**

2-1-E -Quality assurance principles related to the good medical practice in Ophthalmology.

2-1-F- Ethical and scientific basics of medical research.

2.2- Intellectual skills:

By the end of the program, the graduate should be able to demonstrate the following:

2-2-A- Correlation of different relevant sciences in the problem solving and management of common diseases ofOphthalmology.

2-2-B- Problem solving skills based on data analysis and evaluation (even in the absence of some) for common clinical situations related to Ophthalmology.

2.2- C- Demonstrating systematic approach in studying clinical problems relevant to Ophthalmology.

2-2-D- Making alternative decisions in different situations in Ophthalmology.

2.3- Clinical skills

By the end of the program, the graduate should be able to

2-3-A - Provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health.

2-3-B- Demonstrate patient care skills relevant to Ophthalmology for patients with common diseases and problems.

2-3- C- Write and evaluate reports for situations related to the field of Ophthalmology.

2.4- General skills

By the end of the program, the graduate should be able to

- ***Competency-based outcomes for Practice-based Learning and Improvement***

2-4-A- Demonstrate practice-based learning and improvement skills that involves investigation and evaluation of their own patient care, appraisal and assimilation of scientific evidence,, improvements in patient care and risk management.

2-4-B- Use all information sources and technology to improve his practice.

2-4-C- Demonstrate skills of teaching and evaluating others.

- ***Competency-based objectives for Interpersonal and Communication Skills***

2-4-D- Demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, their families, and other health professionals.

- ***Competency-based objectives for Professionalism***

2-4-E- Demonstrate professionalism behaviors, as manifested through a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population.

- ***Competency-based objectives for Systems-based Practice***

2-4-F- Demonstrate an awareness of and responsiveness to the larger context and system of health care and the ability to effectively use system resources to provide care that is of optimal value.

2-4-g- Demonstrate skills of effective time management.

2-4-H- Demonstrate skills of self and continuous learning.

Annex 3, Methods of teaching/learning

Annex 3, Methods of teaching/learning

	Patient care	**Medical knowledge**	**Practice-based learning/ Improvement**	**Interpersonal and communication skills**	**Professionalism**	**Systems-based practice**
Didactic (lectures, seminars, tutorial)	X	X		X	X	X
journal club,	X	X	X			
Educational prescription	X	X	X	X	X	X
Present a case (true or simulated) in a grand round	X	X	X	X	X	
Observation and supervision	X		X	X	X	X
conferences		X	X	X		X
Written assignments	X	X	X	X	X	X
Oral assignments	X	X	X	X	X	X

Teaching methods for knowledge

- ❖ Didactic (lectures, seminars, tutorial)
- ❖ journal club
- ❖ Critically appraised topic
- ❖ Educational prescription (a structured technique for following up on clinical questions that arise during rounds and other venues).
- ❖ Present a case (true or simulated) in a grand round
- ❖ Others

Teaching methods for patient care

- ❖ Observation and supervision /Completed tasks procedure/case logs
- ❖ On-the-job" training without structured teaching is not sufficient for this skill (checklists).
- ❖ Simulation is increasingly used as an effective method for skill/ teamwork training.

Teaching methods for other skills

- ❖ Written communication (e.g., orders, progress note, transfer note, discharge summary, operative reports, and diagnostic reports).

- ❖ Oral communication (e.g., presentations, transfer of care, interactions with patients, families, colleagues, members of the health care team) and/or non verbal skills (e.g., listening, team skills)

- Professionalism, including medical ethics, may be included as a theme throughout the program curriculum that includes both didactic and experiential components (e.g., may be integrated into already existing small group discussions of vignettes or case studies and role plays, computer-based modules) and may be modeled by the faculty in clinical practice and discussed with the resident as issues arise during their clinical practice.

Annex 4, Assessment methods

Annex 4, ILOs evaluation methods for Master Degree students.

Method	Practical skills	K	Intellectual	General skills			
	Patient care	K	I	Practice-based learning/ Improvement	Interpersonal and communication skills	Professionalism	Systems-based practice
Record review	X	X	X		X	X	X
Checklist	X				X		
Global rating	X	X	X	X	X	X	X
Simulations	X	X	X	X	X	X	
Portfolios	X	X	X	X	X		
Standardized oral examination	X	X	X	X	X		X
Written examination	X	X	X	X			X
Procedure/ case log	X	X					
OSCE	X	X	X	X	X	X	X

Annex 4, Glossary of Master Degree doctors assessment methods

- Record Review – Abstraction of information from patient records, such as medications or tests ordered and comparison of findings against accepted patient care standards.
- Chart Stimulated Recall – Uses the MSc doctor's patient records in an oral examination to assess clinical decision-making.
- Mini clinical evaluation: Evaluation of Live/Recorded Performance (single event) – A single resident interaction with a patient is evaluated using a checklist. The encounter may be videotaped for later evaluation.
- Standardized Patients (SP) – Simulated patients are trained to respond in a manner similar to real patients. The standardized patient can be trained to rate MSc doctor's performance on checklists and provide feedback for history taking, physical examination, and communication skills. Physicians may also rate the MSc doctor's performance.
- Objective Structured Clinical Examination (OSCE) – A series of stations with standardized tasks for the MSc doctors to perform. Standardized patients and other assessment methods often are combined in an OSCE. An observer or the standardized patient may evaluate the MSc doctors.
- Procedure or Case Logs – MSc doctors prepare summaries of clinical experiences including clinical data. Logs are useful to document educational experiences and deficiencies.

- PSQs – Patients fill out Patient Survey questionnaires (PSQs) evaluating the quality of care provided by a MSc doctors.

- Case /problems – assess use of knowledge in diagnosing or treating patients or evaluate procedural skills.
- Models: are simulations using mannequins or various anatomic structures to assess procedural skills and interpret clinical findings. Both are useful to assess practice performance and provide constructive feedback.
- 360 Global Rating Evaluations – MSc doctors, faculty, nurses, clerks, and other clinical staff evaluate MSc doctors from different perspectives using similar rating forms.
- Portfolios – A portfolio is a set of project reports that are prepared by the MSc doctors to document projects completed during the MSc study years. For each type of project standards of performance are set. Example projects are summarizing the research literature for selecting a treatment option, implementing a quality improvement program, revising a medical student clerkship elective, and creating a computer program to track patient care and outcomes.
- Examination MCQ – A standardized examination using multiple-choice questions (MCQ). The in-training examination and written board examinations are examples.
- Examination Oral – Uses structured realistic cases and patient case protocols in an oral examination to assess clinical decision-making.
- Procedure or Case Logs – MSc doctors prepare summaries of clinical experiences including clinical data. Logs are useful to document educational experiences and deficiencies.
- PSQs – Patients fill out Patient Survey questionnaires (PSQs) evaluating the quality of care provided by MSc doctors.

Annex 5, Program evaluation tools

By whom	Method	sample
Quality Assurance Unit	Reports Field visits	#
External Evaluator (s):According to department council External Examiner (s): According to department council	Reports Field visits	#
Stakeholders	Reports Field visits questionnaires	#
Senior students	questionnaires	#
Alumni	questionnaires	#

Annex 6, Program Correlations:

مصفوفة توافق المعايير القومية القياسية العامة لبرامج الماجستير مع المعايير الأكاديمية المعتمدة من كلية الطب □ جامعة أسيوط لدرجة الماجستير في طب وجراحة العيون

I- General Academic Reference Standards (GARS) versus Program ARS

1- Graduate attributes

Faculty ARS	NAQAAE General ARS for Postgraduate programs
1- Have the capability to be a scholar, understanding and applying basics, methods and toolsof scientific research and clinical audit in *Ophthalmology.*	1– إجادة تطبيق أساسيات ومنهجيات البحث العلمي واستخدام أدواته المختلفة
2- Appraise and utilise scientific knowledge to continuously update and improve clinical practice in *Ophthalmology..*	2–تطبيق المنهج التحليلي واستخدامه في مجال التخصص
3- Acquire sufficient medical knowledge in the basic biomedical, clinical, behavioural and clinical sciences, medical ethics and medical jurisprudence and apply such knowledge in patient care in *Ophthalmology.*	3–تطبيق المعارف المتخصصة ودمجها مع المعارف ذات العلاقة في ممارسته المهنية
4- Provide patient care that is appropriate, effective and compassionate for	4–إظهار وعي بالمشاكل الجارية والرؤى الحديثة في مجال التخصص

dealing with common health problems and health promotion using evidence-based and update information.	
5- Identify and share to solve health problems in *Ophthalmology.*	5–تحديد المشكلات المهنية وإيجاد حلولا لها
6- Acquire all competencies that enable him to provide safe, scientific, ethical and evidence based clinical care including update use of new technology in *Ophthalmology.*	6–إتقان نطاق مناسب من المهارات المهنية المتخصصة، واستخدام الوسائلال تكنولوجية المناسبة بما يخدم ممارسته المهنية
7- Demonstrate interpersonal and communication skills that ensure effective information exchange with individual patients and their families and teamwork with other health professions, the scientific community and the public. 8- Function as supervisor, and trainer in relation to colleagues, medical students and other health professions.	7–التواصل بفاعلية والقدرة على قيادة فرق العمل
9- Acquire decision making capabilities in different situations related to *Ophthalmology.*	8–اتخاذ القرار في سياق المهنية مختلفة

10- Show responsiveness to the larger context of the health care system, including e.g. the organisation of health care, partnership with health care providers and managers, practice of cost-effective health care, health economics, and resource allocations.	9- توظيف الموارد المتاحة بما يحقق أعلي استفادة والحفاظ عليها
11- Be aware of public health and health policy issues and share in system-based improvement of health care.	10-إظهار الوعي بدوره في تنمية المجتمع والحفاظ على البيئة في ضوء المتغيرات العالمية والإقليمية
12- Show appropriate attitudes and professionalism.	11-التصرف بما يعكس الالتزام بالنزاهة والمصداقية والالتزام بقواعد المهنة
13- Demonstrate skills of lifelong learning and maintenance of competence and ability for continuous medical education and learning in subsequent stages in *Ophthalmology* or one of its subspecialties.	12-تنمية ذاته أكاديميا ومهنيا وقادرا علي التعلم المستمر

2. Academic standard

Faculty ARS	NAQAAE General ARS for Postgraduate programs
2.1.A -Established basic, biomedical, clinical, epidemiological and behavioral sciences related conditions, problems and topics.	2-1-أ-النظريات والأساسيات المتعلقة بمجال التعلم وكذا في المجالات ذات العلاقة.
2.1.B- The relation between good clinical care of common health problems in *Ophthalmology*and the welfare of society.	2-1-ب-التأثيرالمتبادل بين الممارسة المهنية وانعكاسها علي البيئة.
2.1. C- Up to date and recent developments in common problems related to *Ophthalmology.*	2-1-ج-التطورات العلمية في مجال التخصص.
2.1. D- Ethical and medicolegal principles relevant to practice in the *Ophthalmology.*	2-1-د-المبادئ الأخلاقية والقانونية للممارسة المهنية في مجال التخصص.
2.1. E-Quality assurance principles related to the good medical practice in *Ophthalmology.*	2-1-هـ- مبادئ وأساسيات الجودة في الممارسة المهنية في مجال التخصص
2.1. F- Ethical and scientific basics of medical research.	2-1-و- أساسيات وأخلاقيات البحث العلمي

2.2. A-Correlation of different relevant sciences in the problem solving and management of common diseases of *Ophthalmology.* 2.2. B-Problem solving skills based on data analysis and evaluation (even in the absence of some) for common clinical situations related to *Ophthalmology.*	2-2-أ- تحليل وتقييم المعلومات في مجال التخصص والقياس عليها لحل المشاكل
2.2. B-Problem solving skills based on data analysis and evaluation (even in the absence of some) for common clinical situations related to *Ophthalmology.*	2-2-ب-حلال مشاكل المتخصصة مع عدم توافربعض المعطيات
2.2. A-Correlation of different relevant sciences in the problem solving and management of common diseases of *Ophthalmology.*	2-2-ج- الربط بين المعارف المختلفة لحل المشاكل المهنية
2.2. C- Demonstrating systematic approach in studying clinical problems relevant to the *Ophthalmology.*	2-2-د- إجراء دراسة بحثية أوكتابة دراسة علمية منهجية حول مشكلة بحثية
2.4.A-Demonstrate practice-based learning and Improvement skills that involves investigation and evaluation of their own patient care, appraisal and assimilation of scientific evidence, improvements in patient care and risk management	2-2هـ- تقييم المخاطر في الممارسات المهنية في مجال التخصص
2.4.A-Demonstrate practice-based learning and Improvement skills	2-2-و- التخطيط لتطويرالأداء في مجال التخصص

that involves investigation and evaluation of their own patient care, appraisal and assimilation of scientific evidence, improvements in patient care and risk management	
2.2.D-Making alternative decisions in different situations in the field of *Ophthalmology.*	2-2-ز-اتخاذ القرارات المهنية في سياق المهنية متنوعة
2.3.A- provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health. 2.3.B- Demonstrate patient care skills relevant to *Ophthalmology*for patients with common diseases and problems.	2-3-أ- إتقان المهارات المهنية الأساسية والحديثة في مجال التخصص
2.3.C- Write and evaluate reports for Situation related to *Ophthalmology.*	2-3-ب- كتابة وتقييم التقاريرالمهنية
2.3.A- provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health. 2.3.B- Demonstrate patient care skills relevant to that speciality for patients with common diseases and problems.	2-3-ج-تقييم الطرق والأدوات القائمة في مجال التخصص
2.4.D- Demonstrate interpersonal and	2-4-أ-التواصل الفعال بأنواعه المختلفة

communication skills that result in effective information exchange and teaming with patients, their families, and other health professionals.	
2.4.A-Demonstrate practice-based learning and improvement skills that involves investigation and evaluation of their own patient care, appraisal and assimilation of scientific evidence, improvements in patient care and risk management 2.4.B- Use all information sources and technology to improve his practice.	2-4-ب- استخدام تكنولوجيا المعلومات بمايخدم الممارسة المهنية
2.4.A-Demonstrate practice-based learning and improvement skills that involves investigation and evaluation of their own patient care, appraisal and assimilation of scientific evidence, improvements in patient care and risk management 2.4.B- Use all information sources and technology to improve his practice. 2.4.E-Demonstrate professionalism behavior, as manifested through a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population.	2-4-ج-التقييم الذاتي وتحديد احتياجاته التعلمية الشخصية

2.4.A-Demonstrate practice-based learning and improvement skills that involves investigation and evaluation of their own patient care, appraisal and assimilation of scientific evidence, , improvements in patient care and risk management.	2-4-د- استخدام المصادرالمختلفة للحصول على المعلومات والمعارف
2.4. C- Demonstrate skills of teaching and evaluating others.	2-4-هـ- وضع قواعد ومؤشرا تتقييم أداء الآخرين
2.4. F- Demonstrate an awareness of and responsiveness to the larger context and system of health care and the ability to effectively use system resources to provide care that is of optimal value.	2-4-و- العمل في فريق، وقيادة فرق في سياق المهنية مختلفة
2.4.G-Demonstrate skills of effective time management.	2-4-ز- إدارة الوقت بكفاءة
2.4.H-Demonstrate skills of self and continuous learning.	2-4-ح- التعلم الذاتي والمستمر

Comparison between ARS and ILOS for master degree in Ophthalmology

(ARS)	(ILOs)
2-1- Knowledge and understanding	***2-1- Knowledge and understanding***
2-1-A- Established basic, biomedical, clinical, epidemiological and behavioral sciences related conditions, problem and topics.	**2-1-A**- Explain the essential facts and principles of relevant basic sciences including, , Anatomy of the eye, Physiology of the eye and Optics and refraction related to *Ophthalmology*. **2-1-B-** Mention essential facts of clinically supportive sciences including Basics of internal Medicine , Neurological diseases and General Surgery related to *Ophthalmology*. **2-1-C-** Demonstrate sufficient knowledge of etiology, clinical picture, diagnosis, prevention and treatment of the common diseases and situations related to *Ophthalmology*..
2-1-B The relation between good clinical care of common health problem in the *Ophthalmology* and the welfare of society.	**2-1-H-** State the impact of common health problems in the field of *Ophthalmology* on the society and how good clinical practice improve these problems.
2-1-C- Up to date and recent developments in common problems related to the field of *Ophthalmology*..	**2-1-C-** Demonstrate sufficient knowledge of etiology, clinical picture, diagnosis, prevention and treatment of the common diseases and situations related to *Ophthalmology*.. **2-1-D-** Give the recent and update developments in the pathogenesis, diagnosis, prevention and treatment of common diseases related to *Ophthalmology*.
2-1-D- Ethical and medicolegal Principles relevant to practice in the *Ophthalmology* field.	**2-1-E-** Mention the basic ethical and medicolegal principles that should be applied in practice and are relevant to the field of *Ophthalmology*.

2-1-E-Quality assurance principles related to the good medical practice in the *Ophthalmology* field.	**2-1-F-** Mention the basics and standards of quality assurance to ensure good clinical practice in the field *Ophthalmology*.
2-1-F- Ethical and scientific basics of medical research.	**2-1-G-** Mention the ethical and scientific principles of medical research methodology**.**
***2-2- Intellectual skills*:** **2-2-A-**Correlation of different relevant sciences in the problem solving and management of common diseases of the *Ophthalmology*.	***2-2- Intellectual skills:*** **2-2-A-** Correlate the facts of relevant basic and clinically supportive sciences with clinical reasoning, diagnosis and management of common diseases of the *Ophthalmology*.
2-2-B-Problem solving skills based on data analysis and evaluation (even in the absence of some) for common clinical situations related to *Ophthalmology*.	**2-2-B-**Demonstrate an investigatory and analytic thinking approach (problem solving) to common clinical situations related to *Ophthalmology*.
2-2-C- Demonstrating systematic approach in studding clinical problems relevant to the *Ophthalmology*field.	**2-2-C-** Design and /or present a case or review (through seminars/journal clubs.) in one or more of common clinical problems relevant to the *Ophthalmology* field.
2-2-D Making alternative decisions in different situations in the field of the *Ophthalmology*.	**2-2-D-** Formulate management plans and alternative decisions in different situations in the field of the *Ophthalmology*.

continuous (ARS)	continuous (ILOs)
2-3- Clinical skills:	***2/3/1/Practical skills (Patient Care :)***
2-3-A- Provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health.	**2-3-1-A-** Obtain proper history and examine patients in caring and respectful behaviors.
	2-3-1-B- Make informed decisions about diagnostic and therapeutic interventions based on patient information and preferences, up-to-date scientific evidence, and clinical judgment for common conditions related to *Ophthalmology*.
2-3-B- Demonstrate patient care skills relevant to that *Ophthalmology* for patients with common diseases and problems.	**2-3-1-C-** Carry out patient management plans for common conditions related to *Ophthalmology*.
	2-3-1-D- Use information technology to support patient care decisions and patient education in common clinical situations related to *Ophthalmology*.
	2-3-1-E- Perform competently non invasive and invasive procedures considered essential for the *Ophthalmology*.
	2-3-1-F- Provide health care services aimed at preventing health problems related to *Ophthalmology*.
	2-3-1-G- Provide patient-focused care in common conditions related to *Ophthalmology* while working with health care professionals, including those from other disciplines.
2-3-C- Write and evaluate reports for situations related to the field of *Ophthalmology*.	**-3-1-H** Write competently all forms of patient charts and sheets including reports evaluating these charts and sheets. (Write a consultation note, Inform patients of a diagnosis and therapeutic plan, completing and maintaining medical records).

2-4- General skills	***2/3/2 General skills***
2-4-A- Demonstrate practice-based learning and improvement skills that involves investigation and evaluation of their own patient care, appraisal and assimilation of scientific evidence, improvements in patient care and risk management	**2-3-2-A-** Perform practice-based improvement activities using a systematic methodology (share in audits and risk management activities and use logbooks). **2-3-2-B-** Appraises evidence from scientific studies. **2-3-2-C-** Conduct epidemiological studies and surveys.
2-4-B- Use all information sources and technology to improve his practice.	**2-3-2-C-** Conduct epidemiological studies and surveys. **2-3-2-D**.Perform data management including data entry and analysis and using information technology to manage information, access on-line medical information; and support their own education.
2-4-C- Demonstrate skills of teaching and evaluating others.	**2-3-2-E-** Facilitate learning of students other health care professionals including their evaluation and assessment.
2-4-D- Demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, their families, and other health professionals.	**2-3-2-F-** Maintain therapeutic and ethically sound relationship with patients. **2-3-2-G-** Elicit information using effective nonverbal, explanatory, questioning, and writing skills. **2-3-2-H-** Provide information using effective nonverbal, explanatory, questioning, and writing skills. **2-3-2-I-** Work effectively with others as a member of a health care team or other professional group.

2-4-E-Demonstrate professionalism behaviors, as manifested through a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population.	**2-3-2-J-** Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society. **2-3-2-K**- Demonstrate a commitment to ethical principles including provision or withholding of clinical care, confidentiality of patient information, informed consent, business practices. **2-3-2-L**-Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities.
2-4-F-Demonstrate an awareness of and responsiveness to the larger context and system of health care and the ability to effectively use system resources to provide care that is of optimal value.	**2-3-2-M**-Work effectively in relevant health care delivery settings and systems including good administrative and time management **2-3-2-N-** Practice cost-effective health care and resource allocation that does not compromise quality of care. **2-3-2-O**- Assist patients in dealing with system complexities.
2-4-G- Demonstrate skills of effective time management	**2-3-2-M**-Work effectively in relevant health care delivery settings and systems including good administrative and time management
2-4-H-Demonstrate skills of self and continuous learning.	**2-3-2-A-** Perform practice-based improvement activities using a systematic methodology (share in audits and risk management activities and use logbooks).

III-Program matrix
Knowledge and Understanding

Course	Program covered ILOs							
	2/1/A	2/1/B	2/1/C	2/1/D	2/1/E	2/1/F	2/1/G	2/1/H
Course 1 : Anatomy of the eye	✓							
course 2 : Physiology of the eye	✓							
course 3 : Optics and refraction	✓							
Course 4 : General surgery	✓	✓	✓	✓	✓	✓	✓	✓
Course 5 : Internal Medicine and neurological diseases	✓	✓	✓	✓	✓	✓	✓	✓
Course 6 : Ophthalmology	✓	✓	✓	✓	✓	✓	✓	✓

Intellectual

Course	Program covered ILOs			
	2/2/A	2/2/B	2/2/C	2/2/D
Course 1 : Anatomy of the eye	✓			
course 2 : Physiology of the eye	✓	✓		
course 3 : Optics and refraction	✓	✓		
Course 4 : General surgery	✓	✓	✓	✓
Course 5 : Internal Medicine and neurological diseases	✓	✓	✓	✓
Course 6 : Ophthalmology	✓	✓	✓	✓

Practical Skills (Patient Care)

Course	Program covered ILOs							
	2/3/1/A	2/3/1/B	2/3/1/C	2/3/1/D	2/3/1/E	2/3/1/F	2/3/1/G	2/3/1/H
Course 1 : Anatomy of the eye				✓				
course 2 : Physiology of the eye								
course 3 : Optics and refraction				✓				
Course 4 : General surgery	✓	✓	✓	✓	✓	✓	✓	
Course 5 : Internal Medicine and neurological diseases	✓	✓	✓	✓	✓	✓	✓	
Course 6 : Ophthalmology	✓	✓	✓	✓	✓	✓	✓	✓

General Skills

Course	Program covered ILOs							
	2/3/2/ A	2/3/2/ B	2/3/2/ C	2/3/2/ D	2/3/2/ E	2/3/2/ F	2/3/2/ G	2/3/2/ H
Course 1 : Anatomy of the eye				✓				✓
course 2 : Physiology of the eye				✓				✓
course 3 : Optics and refraction				✓				✓
Course 4 : General surgery	✓	✓	✓	✓	✓	✓	✓	✓
Course 5 : Internal Medicine and neurological diseases	✓	✓	✓	✓	✓	✓	✓	✓
Course 6 : Ophthalmology	✓	✓	✓	✓	✓	✓	✓	✓

General Skills

Course	Program covered ILOs						
	2/3/2/I	2/3/2/J	2/3/2/K	2/3/2/L	2/3/2/M	2/3/2/N	2/3/2/O
Course 1 : Anatomy of the eye			✓		✓		
course 2 : Physiology of the eye			✓		✓		
course 3 : Optics and refraction			✓		✓		
Course 4 : General surgery	✓	✓	✓	✓	✓	✓	✓
Course 5 : Internal Medicine and neurological diseases	✓	✓	✓	✓	✓	✓	✓
Course 6 : Ophthalmology	✓	✓	✓	✓	✓	✓	✓

Annex 7, Additional information:

Department information:

Department activities

- Ultrasonography unit including A and B scan
- Fundus camera and fluorescein angiography
- Stratus OCT device
- Digital photo slit- lamp for documenting clinical signs for research purposes
- Laser unit including Nd- Yag and Argon Laser
- Clinics for subspecialties including occuloplasticsclinic , retina clinic , uveitis clinic, cornea clinic and glaucoma clinic.
- Five operating theatres including Two Phaco machines, two Vitrectomy machines, many surgical microscopes where operations in different subspecialties are performed daily including cataract extraction , glaucoma , retinal detachment and many other surgeries and serving as the main referral center for managing trauma cases.
- Outpatient clinics daily including refraction and fitting glasses and contact lenses.
- In patient department including 58 beds for pre and post operative cases in addition to 16 beds for isolation of cases of infection (e.g. corneal ulcers)

Staff members:

الدرجة الحالية	المسمى الوظيفى	أسماء أعضاء هيئة التدريس
Head of the Department	***professor***	***Prof.*** *Mohamed Sayed Saad*
أستاذ متفرغ	***professor***	***Prof./Kamel Abdel Nasser Soliman***
أستاذ متفرغ	***professor***	***Prof. Gamal Hussien Hussien***
أستاذ متفرغ	***professor***	***Prof. Omar Mohamed Ali***
أستاذ متفرغ	***professor***	***Prof. Mohamad Tarek Abdelmoneim***
أستاذ متفرغ	***professor***	***Prof. Ahmed Abo Ghadeer***
professor	***professor***	***Prof./Ashraf Khalaf Al Hussieny***
professor	***professor***	***Prof. Hassan Lotfy Fahmy***
professor	***professor***	***Prof./Abdel Nasser Awad Mohamed***
professor	***professor***	***Prof./Samir Yehya Saleh***
Professor	***Professor***	***Prof. Mohamed Saad Abdel Rahman***
Professor	***Professor***	***Prof.Tarek Ahmed Ali***
professor	***professor***	***Prof. Wael Ahmed Mohamed Soliman***
professor	***professor***	***Prof.Ali Natag Reyad***
Professor	***Professor***	***Prof.Abdel Salam Mohamed Abdala***

Assistant professor	*Assistant professor*	*Dr. Ehab Ismael Ahmed*
Assistant professor	*Assistant professor*	*Dr.Hani Omar El Sedfy*
Assistant professor	*Assistant professor*	*Dr.Gamal Eldin Rahed*
Assistant professor	*Assistant professor*	*Dr.Ahmed Mahmoud Fahmey Fatahalla*
Assistant professor	*Assistant professor*	*Dr.Dalia Mohamed Elsebety*
Assistant professor	*Assistant professor*	*Dr. Ahmed Abdeltawab*
Assistant professor	*Assistant professor*	*Dr. Mohamed Sharfeldin*
Assistant professor	*Assistant professor*	*Dr. Khaled AbdelAzem*
Assistant professor	*Assistant professor*	*Dr. Mohamed Shehata*
Assistant professor	*Assistant professor*	*Dr. Mahmoud Fathy*
Assistant professor	*Assistant professor*	*Dr. Ahmad Farghaly*
Assistant professor	*Assistant professor*	*Dr.Hazem Abdel Motaal*
Assistant professor	*Assistant professor*	*Dr. Mahmoud Abdel Radi*
Assistant professor	*Assistant professor*	*Dr. Mohamed Gamal*
Lecturer	*Lecturer*	*Dr. Mohamed Anwar*
Lecturer	*Lecturer*	*Dr. Zeyad Hasan*
Lecturer	*Lecturer*	*Dr. Magdi Mohammad*
Lecturer	*Lecturer*	*Dr.Dalya Tohamy*

Lecturer	***Lecturer***	***Dr. Salma Kedwany***
Lecturer	***Lecturer***	***Dr.Mohamed Kamel***
Lecturer	***Lecturer***	***Dr.Moamen Khodairy***
Lecturer	***Lecturer***	***Dr.Mohamed Omar***
Lecturer	***Lecturer***	***Dr.Eslam Mohamed***
Lecturer	***Lecturer***	***Dr.Maha Omar***
Lecturer	***Lecturer***	***Dr. Noha Ali Esam***
Lecturer	***Lecturer***	***Dr . Ahmed Abdel-Naser***

Opportunities within the department:

- Weekly seminar and journal club for presenting interesting cases and recent papers
- Digital library saving seminars
- Log book for supervising activities of residents and trainees
- Minor skill training including eyelid and some external procedures
- Attending major operations and observing major procedures
- Closed TV circuits for broadcasting and recording surgical procedures
- Wet labs held regularity for training on different surgical techniques ed anta's phaco emulsification

Department quality control insurance for completing the program:

- Evaluation by the Department head and staff members.
- Regular assessments.
- Log book monitoring.
- Recent equipments and Specialized Units.

(End of the program specifications)